

“Troll” Check?***A Proposal for Administrative Review of Patent Litigation****Lauren H. Cohen,* John M. Golden,† Umit Gurun‡ & Scott Duke Kominers§***Abstract**

The patent system is commonly justified on grounds of promoting social welfare and, more specifically, scientific and technological progress. For years, however, there has been concern that patent litigation in the United States is undermining, rather than furthering, these goals. The time, cost, and complexity of patent suits provide openings for opportunistic assertions of patent infringement that can generate outcomes, possibly through settlement, that represent more a distortion than a fulfillment of patents’ purpose. Such opportunistic assertions can come from any form of patent holder but have been perceived as especially associated with patent-enforcement specialists commonly derided as “patent trolls.”

This article proposes a means to address the information problems that facilitate opportunistic assertion—namely, the institution of an automatic process of substantive but non-binding administrative review of new patent-infringement lawsuits. Whether conducted by an independent Patent Litigation Review Board or a division of the U.S. Patent and Trademark Office, such review would (1) help discourage—or bring to an earlier and less costly end—relatively weak patent-infringement lawsuits; (2) strengthen the hands and likely fates of both patentees and accused infringers with especially robust cases; (3) flag weaknesses in litigation positions to the benefit of both private parties and the courts; and (4) provide policymakers with more readily aggregated information that facilitates evaluation of the patent system’s performance. Multiple economic models are used to indicate the likely benefits of such review. Nonetheless, consistent with the notion that an intended benefit of such review is improved information that can shape future policy, the article proposes that the review process be adopted only on a pilot basis, with the review’s status and shape to be reevaluated before the approval of any mandate for its continuance.

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TABLE OF CONTENTS

INTRODUCTION.....1

I. Primer on Patents and USPTO Review.....6

 A. Patent Rights and Their Enforcement6

 B. The Patent Document and USPTO Review8

II. The Patent Litigation Morass.....15

 A. Ingredients for the Litigation Morass.....16

 1. High Litigation Costs17

 2. Litigation Complexity and Longevity.....18

 3. Rises in Patent Litigation and PAE Activity.....20

 4. Forum Shopping and Selling.....22

 B. Social Welfare Concerns with Patent Litigation.....26

 1. General Social Welfare Concerns27

 2. Concerns with Patent Assertion Entities30

III. Proposal for Administrative Review36

 A. Economic Motivation for Administrative Review36

 1. Basic Economic Theory36

 2. A First Economic Model for Administrative Review37

 3. Calibration of a Second Model for Administrative Review ..40

 a. Model Structure40

 b. Scenario Analyses and Resulting Welfare Analysis43

 B. Framework for Administrative Review44

 1. Proceedings Before the Patent Litigation Review Board.....44

 2. Reporting Responsibilities and Sunset Provision49

 3. Agency Location for the Patent Litigation Review Board.....50

 C. Complement or Substitute for Other Adjustments.....52

CONCLUSION.....59

INTRODUCTION

Patent litigation reform is coming. Many signs point to this. As in the several years leading up to the 2011 America Invents Act (AIA),¹ the United States Congress has entertained a host of patent reform bills over the past few years, many focused on litigation and more specifically on concerns associated with so-called “patent trolls”—a disparaging moniker for patent-assertion entities (PAEs) that specialize in the ownership, licensing, and enforcement of patent rights.² The House of Representatives passed one variant of these litigation reform bills by a 325-to-91 vote in 2013,³ and supermajorities of the House and Senate Judiciary Committees each approved separate versions of such bills in 2015.⁴ Meanwhile, outside pressure for reform has also grown, not only amidst usual industry stakeholders⁵ but also in the popular press. In December 2013, the *New York Times* editorial board cheered congressional consideration of “sound proposals to restrict abusive patent litigation.” In August 2015, editors of the *Economist* made patent reform their cover story⁶ and came close to advocating patent abolition.⁷

¹ Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 438-47 (2012) (chronicling the more than six years of legislative activity that culminated in the AIA).

² Cf. John M. Golden, “Patent Trolls” and Patent Remedies, 85 TEX. L. REV. 2111, 2112 (2007) (noting criticism of “the ‘patent troll’—apparently one of a class of patent owners who do not provide end products or services themselves, but who demand royalties as a price for authorizing the work of others”).

³ House Judiciary Committee, The Innovation Act, <http://judiciary.house.gov/index.cfm/the-innovation-act> (visited Aug. 31, 2015) (“The Innovation Act previously passed the House of Representatives in the 113th Congress by an overwhelming bipartisan vote of 325-91.” (emphasis omitted)).

⁴ On June 4, 2015, the Senate Judiciary Committee voted 12-4 in favor of the Protecting American Talent and Entrepreneurship Act (“the PATENT Act”), S. 1137. Kevin E. Noonan, Senate Judiciary Committee Passes PATENT Act, <http://www.jdsupra.com/legalnews/senate-judiciary-committee-passes-85294/> (June 5, 2015). On June 11, 2015, the House Judiciary Committee voted 24-8 in favor of the Innovation Act, H.R. 9. House Judiciary Committee, *supra* note 3 (“On June 11, 2015, the House Judiciary Committee overwhelmingly passed the Innovation Act by a vote of 24-8.”).

⁵ Cf. Greg Reilly, *Linking Patent Reform and Civil Litigation Reform*, 47 LOYOLA U. CHI. L.J. 179, 238 (2015) (“[I]t is hard to dispute that procedural reform [of civil litigation] is inevitable given the political influence of the large corporate interests most burdened by the broad 1938 procedural system.” (emphasis omitted)).

⁶ See *ECONOMIST*, Aug. 8, 2015 (cover with heading “Set innovation free!” and subheading “Time to fix the patent system”).

⁷ *Time to Fix Patents*, *ECONOMIST*, Aug. 8, 2015, at 11 (“One radical answer would be to abolish patents altogether . . .”); cf. *Intellectual Property: A Question of Utility*, *ECONOMIST*, Aug. 8, 2015, at 50, 52 (“None [of six current U.S. patent reform bills] seeks abolition: any

Notably, reform proposals have tended toward the dramatic. Some proposed legislation has advocated adverse litigation rules targeting PAEs in ways that would likely discourage use of PAE business models even to pursue meritorious claims.⁸ In certain respects, reform proposals have threatened a revolution in patent litigation—for example, by proposing a general adoption of attorney fee shifting along a European “loser pays” model that departs strongly from the dominant U.S. practice of only shifting fees in exceptional cases.⁹ Although the reform proposals that recently won endorsement by the House and Senate Judiciary Committees¹⁰ are more modest than some of their predecessors, they are still arguably draconian by the standards of U.S. litigation reform.¹¹

What has motivated this reform effort? In substantial part, proponents argue that much patent litigation and other forms of patent assertion are undermining patent law’s constitutional purpose to promote technological progress and its commonly perceived larger purpose of promoting social welfare.¹² In support of their concern that at least some strains of patent litigation have become more of an innovation tax or impediment than a spur, they can point to the high cost of patent litigation, high numbers of patent-suit filings, a high intensity of apparent forum shopping at the trial level, and—perhaps most prominently—a high percentage of cases brought by PAEs. According to a biannual survey by the American Intellectual Property Law Association, the median cost to defend or assert a patent suit to

lawmaker brave enough to propose doing away with them altogether ... would face an onslaught from the intellectual-property lobby.”)

⁸ See Adam Smith, Note, *Patent Trolls—An Overview of Proposed Legislation and a Solution That Benefits Small Businesses and Entrepreneurs*, 9 OHIO ST. ENTREPRENEURIAL BUS. L.J. 201, 217 (2014) (discussing a bill, the Saving High-Tech Innovators from Egregious Legal Disputes Act of 2013 (SHIELD Act), that would have “require[d] a plaintiff to post bond covering attorney’s fees before trial if the plaintiff is not an original inventor or assignee, did not make a substantial investment in practicing the invention

⁹ *Id.* at 218 (observing that the SHIELD Act “essentially switches the traditional assumption of American legal jurisprudence” that parties pay their own attorney fees).

¹⁰ See Innovation Act, H.R. 9, 114th Cong., § 3(a) (2015); Protecting American Talent and Entrepreneurship Act (“PATENT Act”), S. 1137, 114th Cong., § 3 (2015); Prachi Agarwal, *Patent Troll: The Brewing Storm of Patent Reform in the United States of America*, 15 JOHN MARSHALL REV. INTELL. PROP. L. 63, 76-81 (2015) (describing provisions of the Innovation and PATENT Acts).

¹¹ See generally Jared A. Smith & Nicholas R. Transier, *Trolling for an NPE Solution*, 7 HASTINGS SCI. & TECH. L.J. 215, 238-39 (2015) (listing various bills with “direct and indirect anti-troll provisions”).

¹² See, e.g., Agarwal, *supra* note 10, at 64 (“[P]atent trolls stifle, discourage, and threaten innovation.”); Smith, *supra* note 8, at 201 (“‘Lately, the rise of certain patent-assertion entities, colloquially termed ‘patent trolls,’ has renewed discussion on many levels ... about the state and effectiveness of current patent law.’”).

completion is \$600,000 when less than \$1 million is at stake, is \$2 million when between \$1 million and \$10 million is at stake, and is over \$3 million when more than \$10 million is at stake.¹³ Further, many litigants are facing these costs. Despite the emergence of alternatives to district court litigation at the U.S. Patent and Trademark Office (USPTO),¹⁴ district court filings of patent-infringement suits are proceeding at record or near-record rates.¹⁵ Moreover, the concentration of new suits in a single district, the notoriously plaintiff-friendly Eastern District of Texas,¹⁶ has become remarkable. In the first two thirds of 2015, about 4,000 new patent-infringement suits were filed,¹⁷ and over 1,700 of these suits—more than forty percent—were filed in the Eastern District of Texas.¹⁸ PAEs have been a large part of this story. According to one tally, PAE plaintiffs accounted for over 60% of the new lawsuits nationally by mid-year in 2015.¹⁹ According to one tabulation, PAEs filed 95% of the new patent lawsuits initiated in the Eastern District of Texas in 2015.²⁰

¹³ AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, 2015 REPORT OF THE ECONOMIC SURVEY 37 (2015) [hereinafter “AIPLA 2015 SURVEY”].

¹⁴ With two months left in fiscal year 2015, the number of new petitions for the USPTO to launch inter partes post-grant proceedings—1,579—already exceeded the fiscal year 2014 total and was nearly three times larger than the total for fiscal year 2013. U.S. Patent & Trademark Office, Patent Trial and Appeal Board Statistics (July 31, 2015), available at <http://www.uspto.gov/sites/default/files/documents/2015-07-31%20PTAB.PDF>.

¹⁵ Joe Mullin, *Trolls Made 2015 One of the Biggest Years Ever for Patent Lawsuits*, ARS TECHNICA, <http://arstechnica.com/tech-policy/2016/01/despite-law-changes-2015-saw-a-heap-of-patent-troll-lawsuits/> (Jan. 5, 2016) (“2015 saw more patent lawsuits filed than any other year save one.”).

¹⁶ See Daniel Klerman & Greg Reilly, *Forum Selling*, S. CAL. L. REV. (forthcoming) (contending “that judges in the Eastern District [of Texas] have consciously sought to attract patentees ... by departing from mainstream doctrine in a variety of procedural areas in a pro-patentee (pro-plaintiff) way”), available at <http://ssrn.com/abstract=2538857>.

¹⁷ Lex Machina, Cases Filed by Year (visited Sept. 2, 2015) (listing 3,928 patent suits as having been filed from January 1 to September 2, 2015), available at <https://law.lexmachina.com>.

¹⁸ Lex Machina, U.S. District Court for the Eastern District of Texas (visited Sept. 2, 2015) (listing 1,735 patent suits as having been filed in the Eastern District of Texas from January 1 to September 2, 2015), available at <https://law.lexmachina.com>; see also Jeff Bounds, *A Deluge of Patent Infringement Lawsuits Hits East Texas Courts*, HOUS. CHRON., Aug. 16, 2015, at B.1 (“Between April and June, lawyers shattered all records when they filed 839 new patent infringement cases in the Eastern District of Texas, a 53.6 percent increase from the 546 lawsuits filed January through March, which was the previous record for a single three-month period ...”).

¹⁹ UnifiedPatents, 1st Half 2015 Patent Dispute Report, <http://unifiedpatents.com/1st-half-2015-patent-dispute-report/> (July 7, 2015). A larger category of “non-practicing entity” plaintiffs accounted for just under 90% of new lawsuits in high-tech industries. *Id.*

²⁰ Mullin, *supra* note 15.

In recent years, Congress and the courts have made multiple tweaks to patent law, with many being at least partly responsive to concerns with patent litigation in general and PAEs in particular. In a 2006 decision in *eBay Inc. v. MercExchange, L.L.C.*,²¹ the U.S. Supreme Court adopted a four-factor test for the issuance of permanent injunctions that has made it difficult for PAEs to pursue a “hold-up” strategy.²² Later decisions by the U.S. Court of Appeals for the Federal Circuit have tightened the standards for awarding reasonable royalty damages, thereby reducing the probability of massive damage awards for patent holders who cannot claim or prove lost profits separate from licensing fees not paid by an infringer.²³ Other court decisions have strengthened patentability requirements of subject-matter eligibility and nonobviousness, thereby making many suits or potential suits more likely to fail in response to a motion to dismiss or motion for summary judgment.²⁴ A 2014 Supreme Court decision appears to have made attorney fee shifting more likely.²⁵ Meanwhile, various district courts have adopted local rules that, in principle, should speed and streamline patent litigation.²⁶ Through the 2011 AIA, Congress restricted joinder in patent cases in a way that effectively sought to thwart PAEs by requiring a form of litigation inefficiency.²⁷ In 2015, the Supreme Court approved amendments to the Federal Rules of Civil Procedure abrogating a model form for patent cases that had effectively permitted many patent holders to bring suit with

²¹ 547 U.S. 388 (2006).

²² See Thomas F. Cotter & John M. Golden, *Empirical Studies Relating to Patents—Remedies*, in RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (Peter Menell, David Schwartz & Ben Depoorter eds., forthcoming) (describing studies indicating that injunctions have become rare in patent-infringement suits brought by PAEs).

²³ Golden, *supra* note 159, at 605 (citing cases through which the Federal Circuit has tightened reasonable royalty standards).

²⁴ *Cf. id.* (mentioning Supreme Court decisions that “tightened the requirement of patentable subject matter ... and the requirement of nonobviousness”).

²⁵ See *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1754 (2014) (abrogating a Federal Circuit rule requiring both “subjective bad faith” and “objective baseless[ness]” for a court to award attorney fees as a result of the weakness of a plaintiff’s case (internal quotation marks omitted)).

²⁶ It seems arguable, however, whether the facilitation of efficient litigation generally helps or hurts PAEs of most concern. *Id.* at 607 (“Like highway improvements that attract too many drivers and make traffic congestion worse, litigation reforms can aggravate, rather than alleviate, tendencies toward excessive litigation.”).

²⁷ In response to complaints about PAEs’ simultaneously suing “numerous unrelated accused infringers in inconvenient venues,” Congress overrode the Federal Rules of Civil Procedure’s more liberal approach to joinder and enacted patent-specific rules that “impos[e] upon courts and patent owners the prospect of litigating the same factual and legal questions numerous times.” David O. Taylor, *Patent Misjoinder*, 88 N.Y.U. L. REV. 652, 655 (2013).

complaints that featured “little more ... than the name and number of the patent and an allegation of infringement.”²⁸

Nonetheless, the flood of PAE activity and accompanying complaints have continued.²⁹ Moreover, there are other important systemic deficiencies that these tweaks have failed to correct. First, the patent system’s continuing high litigation costs can still create real concerns about excessive frequency of nuisance settlements and effective access to justice. Second, the general inability of business entities to appear pro se means that, if a startup or other small business cannot afford a lawyer and no pro bono or contingent-fee representation is available, that business effectively cannot appear to present arguments—with the result likely being forfeit of an opportunity to enforce a patent or a default judgment of patent infringement.³⁰ A secondary concern—at least for policymakers—is difficulty in assessing the nature and general merits of patent litigation being brought in district courts across the country. The fracturing of the national patent docket across a wide array of district courts complicates assessment of the national state of patent litigation and thus also complicates the effective imposition and policing of national standards on substance or procedure.

In response to persistent concerns with patent litigation, this article proposes a general system for preliminary review of patent-infringement lawsuits by a Patent Litigation Review Board (PLRB), possibly located within the USPTO and its existing Patent Trial and Appeal Board (PTAB) but alternatively existing as a separate administrative entity. In general, the results of PLRB administrative review would not be substantively binding on courts, but as long as the courts and private parties give the results substantial weight,³¹ there is reason to hope that such a preliminary review can do the following: (1) help discourage—or bring to an earlier and less costly end—relatively weak patent-infringement lawsuits; (2) strengthen the hands and

²⁸ Matthew Bultman, *Stricter Pleading Requirements Take Effect Dec. 1*, Law360 (Nov. 30, 2015); cf. Patricia W. Hatamyar Moore, *The Anti-Plaintiff Pending Amendments to the Federal Rules of Civil Procedure and the Pro-Defendant Composition of the Federal Rulemaking Committees*, 83 U. CIN. L. REV. 1083, 1126 (2015) (criticizing “[t]he pending abrogation of Rule 84 and all thirty-six of the official forms following the [Federal Rules of Civil Procedure]”).

²⁹ See *infra* text accompanying notes 233-237.

³⁰ John M. Golden, *Litigation in the Middle: The Context of Patent-Infringement Injunctions*, 92 TEX. L. REV. 2075, 2093 (2014) (“[T]here is no pro se option for many potential litigants because U.S. courts have ruled that business entities generally cannot be represented pro se”).

³¹ Cf. Irina D. Manta, *Bearing Down on Trademark Bullies*, 22 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 853, 867 (2012) (describing “[t]he primary purpose” of proposed USPTO review of trademark cease-and-desist letters as “impos[ition of] some cost on the trademark owner to incentive him to make careful choices as to when to attempt to enforce his mark”).

likely fates of both patentees and accused infringers with especially robust cases; (3) flag weaknesses in litigation positions to the benefit of both private parties and the courts; and (4) provide policymakers with more readily aggregated information that facilitates evaluation of patent system performance. The primary mechanism by which PLRB review would further these goals would be by increasing the information on case quality and likely outcomes at and with respect to the relatively early stages of new patent-infringement lawsuits. Through such informational contributions, a system of preliminary administrative review might help answer both PAE-related and PAE-independent concerns about patent litigation either directly or indirectly—for example, by providing the basis for a better-tailored policy solution through the information that PLRB review generates.

The article proceeds as follows. Part I provides a primer on patents and existing processes of administrative review of patents and patent applications at the USPTO. Part II describes aspects of the current landscape of patent litigation in the United States, including social welfare concerns that include concerns raised by PAEs specifically. Part III presents economic models and reasoning that provide support for preliminary administrative review of patent litigation by considering its informational contributions and effects on party incentives. Part III also describes details of a suggested framework for administrative review, including a proposal that such review be adopted initially on a pilot basis only so that a statutory sunset provision effectively requires policymakers to reassess such review and its alternatives based on information developed through the pilot. Finally, Part III discusses how the proposed administrative review framework operates as an alternative or complement to other potential or already implemented adjustments of the patent system. A brief conclusion follows.

I. PRIMER ON PATENTS AND USPTO REVIEW

As a prelude to a detailed description of this article's proposal for a new process of administrative litigation review, this Part provides a brief discussion of the basic nature of patent rights, the current process for examining patent applications before patent issuance, and realities of modern patent litigation. This background motivates the administrative review proposal and informs details of its suggested structure.

A. PATENT RIGHTS AND THEIR ENFORCEMENT

Patents provide their owners with territorially limited rights to exclude others from the making, use, sale or offer for sale, or importation of

covered subject matter.³² Under the current standard patent term, these rights last from the time a patent issues until twenty years from the first relevant filing of an application with the USPTO or a qualifying foreign patent office.³³ For a party to be liable for patent infringement, that party need not know of the infringed patent.³⁴ Nor need the party have derived the covered subject matter in any way from the inventors or owners associated with the patent.³⁵ Hence, if a consumer uses in the United States a smartphone purchased in the United States from a retail store and imported by a manufacturer who independently developed all the technology associated with the smartphone, the consumer, retail store, and manufacturer could all be liable for direct infringement of a U.S. patent covering technology in the smartphone. Although knowledge of a relevant patent is generally required for liability for indirect infringement that is more in the nature of aiding and abetting,³⁶ direct infringement by engaging in such acts as manufacture, use, sale, or importation occurs regardless of whether any of the parties have knowledge of the pertinent patent and regardless of the fact that the manufacturer independently developed all the relevant technology.

When a patent owner suspects that its rights are being infringed, it can bring suit in a U.S. district court³⁷ to seek relief such as lost-profit or

³² See 35 U.S.C. § 154(a)(1) (“Every patent shall contain ... a grant to the patentee ... of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States ...”); *id.* § 271(a) (defining as a patent infringer “whoever without authority makes, uses, offers to sell, or sells any patented invention during the term of the patent therefor”).

³³ See 35 U.S.C. § 154(a)(2) (“Subject to the payment of fees under this title, [a patent] grant shall be for a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for the patent was filed in the United States or ... from the date on which the earliest [qualifying] application was filed.”).

³⁴ *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015) (observing that “[d]irect infringement is a strict-liability offense” for which “a defendant’s mental state is irrelevant”).

³⁵ See John M. Golden, *Principles for Patent Remedies*, 88 TEX. L. REV. 505, 515 (2010) (“[U]nlike copyright infringement, patent infringement does not ‘require’ copying and, as a general rule, does not excuse independent creation.”).

³⁶ *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2068 (2011) (concluding that “knowledge of the relevant patent” is required for indirect infringement under both subsection 271(b) and 271(c) of the U.S. Patent Act).

³⁷ See 28 U.S.C. § 1338(a) (“The district courts shall have original jurisdiction of any civil action arising under an Act of Congress relating to patents No State court shall have jurisdiction over any claim for relief arising under any Act of Congress relating to patents”); 35 U.S.C. § 281 (“A patentee shall have remedy by civil action for infringement of his patent.”).

reasonable-royalty damages,³⁸ enhanced damages,³⁹ or an injunction.⁴⁰ The patent owner who brings such a suit need not be the inventor of the patented technology. Nor need the patentee be the owner of the rights at the time the patent issues. The Patent Act explicitly provides that “patents, or any interest therein, shall be assignable in law by an instrument in writing.”⁴¹ This assignability permits not only the sale or exchange of patent rights between persons or entities that actively make, use, or sell the subject matter covered by the patents, but also the sale of patent rights to associated forms of entities—called by names such as “patent aggregators,” “patent assertion entities,” “non-practicing entities,” or “patent trolls”⁴²—that specialize in the acquisition and assertion of patent rights without any special involvement in the development, sale, or use of the covered subject matter itself.⁴³

B. THE PATENT DOCUMENT AND USPTO REVIEW

The scope of an individual set of patent rights is indicated and supported by the patent document. This document consists of drawings, a written description of the alleged invention, and patent claims that are drafted by the patent applicant or its agents, submitted to the USPTO, and commonly amended during the process of USPTO examination.⁴⁴ The written description is required to disclose the alleged invention and “the manner and process of making and using it” in a manner sufficient (1) to show that the inventor was “in possession” of the invention at the time of filing a patent application⁴⁵ and (2) “to enable any person skilled in the art to which it

³⁸ See 35 U.S.C. § 284 (“Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer . . .”).

³⁹ *Id.* (“[T]he court may increase the damages up to three times the amount found or assessed.”).

⁴⁰ *Id.* § 283 (granting courts the power to “grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent”).

⁴¹ 35 U.S.C. § 261.

⁴² LANNING G. BRYER, SCOTT J. LEBSON & MATTHEW D. ASBELL, *INTELLECTUAL PROPERTY STRATEGIES FOR THE 21ST CENTURY CORPORATION: A SHIFT IN STRATEGIC AND FINANCIAL MANAGEMENT* 145 (2011) (listing “various monikers” for so-called “[p]atent trolls”).

⁴³ See *supra* note 2 and accompanying text.

⁴⁴ See ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 13-26 (6th ed. 2013) (describing the patent document and observing that, generally speaking, “the final issued patent is largely identical to the patent application drafted by the inventor’s attorney or agent”).

⁴⁵ *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (“[T]he test for sufficiency [under the so-called ‘written description requirement’] is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.”).

pertains, or with which it is most nearly connected, to make and use the same.”⁴⁶ Patent claims are numbered clauses at the end of the patent document⁴⁷ that are required to “particularly poin[t] out and distinctly clai[m] the subject matter which the inventor or a joint inventor regards as the invention.”⁴⁸ The claims are the primary reference points for the courts, USPTO, and interested public in determining the scope of what a patent covers⁴⁹ although, under the “doctrine of equivalents,” there is typically some room for the patent to cover matter substantially equivalent to what is claimed even though not within the claims’ literal scope.⁵⁰

Before the USPTO grants a patent application and issues a legally enforceable patent, the agency subjects the application to substantive review by one or more patent examiners, a process called “examination” when the focus is on the USPTO’s activities and “prosecution” when the focus is on those of the applicant.⁵¹ An examiner checks whether a patent application’s claims satisfy statutory requirements for patentability—namely, whether they recite an invention that has at least minimal functionality,⁵² is novel and nonobvious to one of skill in the relevant art,⁵³ is adequately described by the patent document,⁵⁴ and is delineated in a way that “inform[s] those skilled in the art about the scope of the invention with reasonable certainty.”⁵⁵

Examiners generally have expertise associated with the subject matter that they review,⁵⁶ but they operate within severe constraints that limit the effectiveness of their review. First, in large part because the USPTO receives

⁴⁶ 35 U.S.C. § 112(a).

⁴⁷ John M. Golden, *Construing Patent Claims According to Their “Interpretive Community”*: A Call for an Attorney-Plus-Artisan Perspective, 21 HARV. J.L. & TECH. 321, 322 (2008) (noting that patent claims are “numbered clauses at the end of a patent”).

⁴⁸ *Id.* § 112(b).

⁴⁹ See Golden, *supra* note 47, at 322.

⁵⁰ See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 732 (2002) (“The scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described.”).

⁵¹ See F. Scott Kieff, *The Case for Registering Patents and the Law and Economics of Present Patent-Obtaining Rules*, 45 B.C. L. Rev. 55, 70-71 (2003) (noting that the “examination process” is “also called patent prosecution”).

⁵² See JANICE MUELLER, PATENT LAW 321 (4th ed. 2013) (“[T]he substantive threshold for satisfying the utility requirement is relatively low.”).

⁵³ 35 U.S.C. §§ 101-03 (setting out requirements of novelty and nonobviousness).

⁵⁴ See *supra* text accompanying notes 45-46.

⁵⁵ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2139 (2014).

⁵⁶ See MERGES & DUFFY, *supra* note 44, at 52 (noting “the specialization of examiners, who are assigned to a particular technology”); KIEFF ET AL., *supra* note 137, at 99 (“When an application reaches an examining group, it is assigned to the appropriate art (i.e., technology) unit and then to a particular examiner.”).

hundreds of thousands of patent applications each year—in recent years half a million or more⁵⁷—examiners are severely limited in the time available for examining individual applications. Even if one heroically assumes that each of the USPTO’s approximately 9,000 examiners⁵⁸ works like a law-firm associate and spends 2,000 hours per year solely on examining applications, one ends up with an estimate of 30 hours for an individual examiner to review each of the roughly 600,000 new applications filed in calendar year 2014.⁵⁹ In these 30 hours, the examiner must read the application and understand its technical subject matter, search and review antecedent material (“prior art”) that could indicate that the claimed invention fails the requirements of novelty and nonobviousness, evaluate satisfaction of other patentability requirements, write up any relied-upon bases for rejecting the application, and possibly engage in telephone or in-person interviews with the applicant or its agents.⁶⁰ More realistic, as opposed to heroic, estimates of available examiner time per application would likely put the average time available for these activities at something more like 20 hours per application, rather than 30.⁶¹

Particularly for those who have ever attempted to read and understand a patent document, the limits on examiner time might alone suffice to indicate that the USPTO’s pre-issuance review can act as only a rough screen for patent application quality. But there are other reasons to believe that the USPTO almost necessarily issues a large number of patents or, at least, individual patent claims that fuller investigation and assessment would reveal

⁵⁷ See U.S. Patent & Trademark Office, U.S. Patent Statistics Chart: Calendar Years 1963-2014, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm [hereinafter “Calendar Year Patent Statistics”] (listing calendar year statistics for numbers of patent applications and patent grants).

⁵⁸ U.S. PATENT & TRADEMARK OFFICE, FISCAL YEAR 2015 PERFORMANCE AND ACCOUNTABILITY REPORT 14 (2015) (indicating that, at the end of fiscal year 2015, the USPTO employed 9,161 patent examiners), available at <http://www.uspto.gov/sites/default/files/documents/USPTOFY15PAR.pdf>.

⁵⁹ Cf. John M. Golden, *Proliferating Patents and Patent Law’s “Cost Disease”*, 51 HOUS. L. REV. 455, 496-97 (2013) (employing a similar calculation for then prevailing numbers of patent examiners and annual patent applications).

⁶⁰ See KIEFF ET AL., *supra* note 137, at 99-102 & nn.38-43 (describing the examination process); Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1500 (2001) (describing examiner tasks).

⁶¹ See Chris J. Katopis, *Perfect Happiness?: Game Theory as a Tool for Enhancing Patent Quality*, 10 YALE J.L. & TECH. 360, 373 (2008) (“It is estimated that, on average, an examiner must examine eighty-seven applications per year, spending approximately nineteen hours on each application.”); Lemley, *supra* note 60, at 1500 (“The total average time the examiner spends on all these tasks over the two- to three-year prosecution of the patent is eighteen hours.”).

to fail the law's putative requirements for patentability.⁶² Not only are the examiners limited in the time that they can search prior art, they are generally limited in their ability to consult outside experts⁶³ and also to use certain other potential sources of information, such as the Internet, during the 18 months that applications generally remain confidential.⁶⁴ Moreover, in addition to the various practical constraints under which examiners operate, they are also saddled with the legal burden of proof. From the moment a patent application is filed, an entitlement to an issued patent is effectively presumed: the burden is on the examiner to show non-patentability by a preponderance of evidence.⁶⁵ On top of all this, the USPTO's arguable culture of over-attentiveness to the concerns of its fee-paying "customers"⁶⁶ and the agency's

⁶² See Joseph Farrell & Robert P. Merges, *Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 BERKELEY TECH. L.J. 943, 944-45 (2004) (discussing grounds for believing that the USPTO "issues many patents that should not be enforced, either on economic or on legal grounds").

⁶³ Cf. Doug Lichtman & Mark A. Lemley, *Rethinking Patent Law's Presumption of Validity*, 60 STAN. L. REV. 45, 62 (2007) (advocating congressional action to establish "a new, much more rigorous patent review process" with associated fees "sufficiently high that examiners would have the funding necessary not only to spend at least one full month researching each purported invention, but also to hire relevant outside experts").

⁶⁴ See MANUAL OF PATENT EXAMINING PROCEDURE § 904.02(c), at 900-44 (rev. 9th ed., Nov. 2015) ("All use of the Internet by examiners must be conducted in a manner that ensures compliance with confidentiality requirements"); Golden, *supra* note 47, at 336 (noting that, under confidentiality requirements, "examiners face tight restrictions on their ability to consult any outside evidence, never mind outside experts"); David O. Taylor, *Clear but Unconvincing: The Federal Circuit's Invalidity Standard*, 21 FORDHAM INTELL. PROP., MEDIA & ENTERTAINMENT L.J. 293, 314-15 (2011) (noting that examiners "do not necessarily have the best access to prior art databases" and that "[p]atent prosecution is mostly an ex parte procedure that excludes public participation").

⁶⁵ Sean B. Seymore, *The Presumption of Patentability*, 97 MINN. L. REV. 990, 1023 (2013) ("From an evidentiary standpoint, the biggest problem facing an examiner who seeks to challenge patentability is the dual burden of building a prima facie case of patentability and carrying the ultimate burden of persuasion on the issue by a preponderance of the evidence.").

⁶⁶ See, e.g., U.S. PATENT & TRADEMARK OFFICE, 2010-2015 STRATEGIC PLAN 33 (listing management goals including "[m]ak[ing] USPTO data easily accessible to USPTO customers, partners, industry, and the public" and "[e]stablishing partnerships with customers, industry and other IP Offices"), available at http://www.uspto.gov/sites/default/files/about/stratplan/USPTO_2010-2015_Strategic_Plan.pdf; Jonathan S. Masur, *Costly Screens and Patent Examination*, 2 J. LEG. ANAL. 687, 692-93 (2010) ("The patent office describes itself as existing to provide a service to patent applicants, who are its 'customers' ..., and states quite plainly that its mission is 'to help our customers get patents'"); cf. Michael D. Frakes & Melissa F. Wasserman, *Does Agency Funding Affect Decisionmaking?: An Empirical Assessment of the PTO's Granting Patterns*, 66 VAND. L. REV. 67, 121 (2013) ("[O]ur findings suggest that

system of performance incentives, which has historically awarded credit for closing cases through patent grants,⁶⁷ might further tilt the balance against high-quality pre-issuance examination.

Given the deficiencies of pre-issuance review of patents, the patent system unsurprisingly provides opportunities for challenging or checking the validity of issued patents or, more specifically, individual claims in issued patents. First, a party sued for infringement or confronting an immediate threat of suit for infringement can challenge the validity of the relevant patent or its patent claims in district court.⁶⁸ If the party is sued for infringement, this challenge can be asserted as a defense to charges of infringement or as a counterclaim for a judgment of invalidity.⁶⁹ Even if the party has not yet been sued for infringement, the party may institute a declaratory judgment action seeking a declaration of invalidity, assuming Article III requirements for standing are met.⁷⁰

Although a district court challenge to validity must be proven by clear and convincing evidence, success in such challenges is not particularly rare. In cases in which questions of novelty or nonobviousness are litigated to a final judgment, challengers apparently win about half of the time.⁷¹ Selection effects in litigation—products of parties' presumed selectivity in determining which issues are litigated to final judgment and which are settled, dropped, or never even asserted before such a judgment—mean that such rates for invalidation in litigation do not provide a great sense of the underlying percentage of issued patent claims that are in fact invalid.⁷² But given the

the inadequacies of the examination fees and the existence of post-allowance fees may bias even a benevolent PTO toward granting patents.”).

⁶⁷ Patrick A. Doody, *How to Eliminate the Backlog at the Patent Office*, 37 AIPLA Q.J. 395, 411-13 (2009) (discussing a USPTO “quota or ‘count’ based system that allocates credits to the examiner depending on the particular action taken” and noting that a patent examiner “receives a count” for the allowance of an application).

⁶⁸ See, e.g., *Arkema Inc. v. Honeywell Int’l, Inc.*, 706 F.3d 1351, 1359 (Fed. Cir. 2013) (holding that a declaratory judgment plaintiff had standing where it “allege[d] a present intent to supply automobile manufacturers in the United States with [matter] for potentially infringing uses”).

⁶⁹ See 35 U.S.C. § 282(b) (identifying potential “defenses in any action involving the validity or infringement of a patent”).

⁷⁰ See KIMBERLY A. MOORE, PAUL R. MICHEL & TIMOTHY R. HOLBROOK, *PATENT LITIGATION AND STRATEGY* 50 (3d ed. 2008) (“Declaratory judgment actions can be a sword for the alleged infringer as well as a shield.”).

⁷¹ See Michael D. Frakes & Melissa F. Wasserman, *Does the U.S. Patent and Trademark Office Grant Too Many Bad Patents?: Evidence from a Quasi-Experiment*, 67 STAN. L. REV. 613, 621 (2015) (noting “the frequently cited statistic that courts invalidate nearly half of all litigated patents that make it to final judgment”).

⁷² See *id.* at 621-22 (observing “that litigated patents are a highly select sample of patents whose characteristics vary substantially from allowed patents in general”).

relatively standard-like nature of validity challenges on grounds such as nonobviousness, the possibilities for using a sympathetic expert to bolster such challenges, the virtual ubiquity of validity challenges in actual patent-infringement litigation, and the seeming conventionality of decisions to litigate at least some validity issues to judgment, one might reasonably intuit that, for the typical patent, there is a substantial chance that a significant validity challenge could be mounted to at least some of the patent's claims.⁷³ Indeed, the common existence of substantial questions of validity with respect to individual patent claims is credited with being one of the reasons for which preliminary injunctions tend to be difficult to obtain in patent-infringement suits.⁷⁴

In the early 1980s, Congress began a pattern of responding to uncertainty about issued patent claims' validity by establishing administrative post-issuance proceedings through which the validity of patent claims might be challenged or clarified at the USPTO. The available types of such proceedings and the frequency of their overall use have grown over the past three decades. Now there are four such types, with thousands of individual USPTO post-issuance proceedings being launched each year.⁷⁵ The four types of such proceedings are as follows: (1) *ex parte* reexaminations to evaluate new questions of novelty or nonobviousness relative to prior art in the form of "patents or printed publications";⁷⁶ (2) *inter partes* review proceedings, in which a private party can effectively litigate novelty or nonobviousness relative to patents or printed publications in an administrative trial at the USPTO;⁷⁷ (3) post-grant review proceedings in which a party can raise and litigate essentially any kind of validity question before the USPTO as long as the request for review comes within nine months

⁷³ Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, 19 J. ECON. PERSP., Spring 2005, at 75, 76 ("The risk that a patent will be declared invalid is substantial.").

⁷⁴ See *Trebro Mfg., Inc. v. Firefly Equip., LLC*, 748 F.3d 1159, 1165 (Fed. Cir. 2014) ("An accused infringer can defeat a showing of likelihood of success on the merits by demonstrating a substantial question of validity or infringement."); Emmette F. Hale, III, *Civil RICO and Intellectual Property After Sedima*, 56 MISS. L.J. 567, 619 (1986) ("Preliminary injunctive relief is difficult to obtain, since the courts require the patent validity be 'clearly' established prior to the issuance of a preliminary injunction.").

⁷⁵ See, e.g., U.S. Patent & Trademark Office, Patent Trial and Appeal Board Statistics 7 (Nov. 30, 2015) (reporting that the PTAB had instituted about 900 *inter partes* review, post-grant review, and covered business method review proceedings in fiscal year 2015, not including joinders), available at <http://www.uspto.gov/sites/default/files/documents/2015-11-30%20PTAB.pdf>.

⁷⁶ 35 U.S.C. § 303 (describing potential grounds for instituting an *ex parte* reexamination); see also MERGES & DUFFY, *supra* note 44, at 1040 (describing *ex parte* reexamination proceedings).

⁷⁷ See 35 U.S.C. § 311 (describing potential bases for a petition for *inter partes* review); MERGES & DUFFY, *supra* note 44, at 1050-51 (describing *inter partes* review proceedings).

of the relevant patent's issuance;⁷⁸ and (4) covered business method review proceedings whose procedure and potential substance track those of post-grant review but which need not be requested within nine months of the relevant patent's issuance.⁷⁹

Post-issuance review proceedings have become a booming business.⁸⁰ But the limited scope of ex parte reexamination and inter partes review, the limited time window for requesting post-grant review, and the limited subject matter coverage of covered business method review⁸¹ mean that there are still large gaps in the USPTO's power to reevaluate patentability after a patent issues. Further, ex parte proceedings are often viewed as too likely to generate results favorable to the patent owner to be a reliable defense against questionable patent rights.⁸² The three other types of inter partes proceedings are often seen as more promising for challengers⁸³ but are also generally more expensive. Between USPTO fees and fees for attorneys and experts, the cost of litigating any of these inter partes proceedings is likely to be in the nature of a couple hundred thousand dollars if the dispute runs at least through the end of motion practice.⁸⁴ Although such amounts are substantially less than the amounts on the order of \$1 million or more

⁷⁸ See *id.* at 1047 (describing post-grant review proceedings).

⁷⁹ See Eric C. Cohen, *A Primer on Inter Partes Review, Covered Business Method Review, and Post-Grant Review Before the Patent Trial and Appeal Board*, 24 FED. CIR. B.J. 1, 22 (2014) ("The transitional proceeding [for covered business method patents] employs the standards of post-grant review, except that there is no nine-month deadline for filing and the estoppel provisions of post-grant review do not apply to civil actions.").

⁸⁰ See John M. Golden, *Working Without Chevron: The PTO as Prime Mover*, 65 DUKE L.J. (forthcoming) ("From mid-2014 through the third quarter of 2015, filings for inter partes post-issuance proceedings before the [USPTO's Patent Trial and Appeal Board] arrived at a rate of about 150 per month.").

⁸¹ See *supra* text accompanying notes ____.

⁸² See Dale L. Carlson & Robert A. Migliorini, *Patent Reform at the Crossroads: Experience in the Far East with Oppositions Suggests an Alternative Approach for the United States*, 7 N.C. J.L. & TECH. 261, 270 (2006) ("The underutilization of ex parte reexamination to challenge patent validity is primarily based on the fact that the procedure is unduly favorable to the patentee because of the vary limited involvement of the third-party requester in the proceeding.").

⁸³ See, e.g., William Hannah, *Major Change, New Chapter: How Inter Partes Review and Post Grant Review Proceedings Created by the America Invents Act Will Shape Litigation Strategies*, 17 INTELL. PROP. L. BULL. 27, 28 (2012) ("Although initiating an Ex Parte reexamination is still available, statistics show that an Inter Partes Review is much more likely to cancel or modify the claims.").

⁸⁴ See AIPLA 2015 SURVEY, *supra* note 13, at 38 (listing median litigation costs for inter partes proceeding of \$200,000 at the end of motion practice and \$350,000 through an appeal to the Federal Circuit).

typically expected for litigation in the district courts,⁸⁵ they are much greater than the \$12,000 or so characteristic of the cost of ex parte reexamination,⁸⁶ and the characteristic cost of adversarial post-issuance review at the USPTO can therefore be formidable to cash-strapped startups or even to large firms that feel awash in letters suggesting that they might be infringing others' patent rights. In short, although the current flotilla of post-issuance administrative proceedings might represent an improvement over a situation in which the only avenue to challenge patent claims is in the district courts, many facing a threat of an infringement suit remain without a readily available and relatively inexpensive avenue for obtaining a government checkup on patent claims' validity and scope.

This article proposes a new type of administrative proceeding designed to fill at least some of the remaining gaps. To understand the prospects for such a proceeding, however, it is important to understand some details about how patent litigation in the district courts works. This is the subject of the next section.

II. THE PATENT LITIGATION MORASS

From an economic standpoint, patent litigation might be viewed as a way of allocating rewards for innovation between a patent holder and an accused infringer. In this light, resulting wealth transfers, whether in the form of damages payments or licensing fees, might be viewed as inconsequential from a first-order economic perspective.⁸⁷ But typical economic arguments for and against patent rights are premised on the belief that such payments play an important role in setting incentives for investment in innovation, broadly defined for these purposes as a set of processes including invention, further development and commercialization, and actions to coordinate such follow-on activities. In accordance with this perspective, patent litigation can shift incentives for innovative activity away from the social optimum if courts generate results that allocate rewards improperly from a social-welfare perspective or if litigation costs act as an innovation-damping tax without providing sufficient countervailing benefit. Many critics of the patent system believe that patent litigation indeed produces problematic incentives either in general or at least in the particular circumstances in which patents find their way into the hands of patent assertion entities (PAEs).

⁸⁵ See *supra* text accompanying notes __.

⁸⁶ AIPLA 2015 SURVEY, *supra* note 13, at 38 (listing \$12,000 as the median expected cost of law services for ex parte reexamination).

⁸⁷ See Louis Kaplow, *Multistage Adjudication*, 126 HARV. L. REV. 1179, 1242-43 (2013) ("Monetary payments are transfers: the prospect of payment contributes to deterrence, and also to chilling, but the payment itself is not socially consequential.").

To understand how patent litigation can distort incentives away from a social optimum, it is helpful to have some knowledge of patent litigation's peculiar mechanics. A patent-infringement suit in district court is a form a complex litigation that typically features multiple stages and high costs. The Judicial Conference of the United States has attested to the burden imposed on courts by this sort of litigation by assigning patent-infringement suits the fourth highest case weight for civil suits in the district courts, the case weight for patent litigation trailing only those for death-penalty habeas cases, environmental cases, and civil RICO cases.⁸⁸ Of critical concern to this article, patent litigation imposes not only high burdens on district courts but also high attorney and expert costs on individual parties.⁸⁹ Further, absent settlement, patent litigation often takes a substantial time to reach final judgment. Decisions on summary judgment and trials tend to occur more than a year after the time a case is filed, and this tends to be the case even if the case remains on the schedule suggested by local rules or standing orders commonly intended to help expedite patent litigation.⁹⁰ Moreover, appeals can add years to the time for resolving a dispute. Federal Circuit reversals of district court claim constructions have historically been notoriously common,⁹¹ and such reversals can require remand for reassessment of questions of infringement or validity in light of the new construction.

A. INGREDIENTS FOR THE LITIGATION MORASS

Patent-infringement litigation involves both a technical area of law and, frequently, technically complex scientific or technological subject matter. Consequently, patent litigation naturally poses multiple difficulties for a system of generalist trial courts that tend to use juries for fact-finding. Three aspects of this treacherous patent-litigation landscape are particularly worth highlighting: (1) high litigation costs; (2) the complexity and, absent settlement, likely longevity of litigation; and (3) evidence of forum shopping.

⁸⁸ 2003-2004 DISTRICT COURT CASE-WEIGHTING STUDY: FINAL REPORT TO THE SUBCOMMITTEE ON JUDICIAL STATISTICS OF THE COMMITTEE ON JUDICIAL RESOURCES OF THE JUDICIAL CONFERENCE OF THE UNITED STATES 5 tab. 1 (2005) (listing case weights for categories of civil cases).

⁸⁹ See *infra* text accompanying notes __.

⁹⁰ See *infra* text accompanying notes __.

⁹¹ See John M. Golden, Response, *Too Human? Personal Relationships and Appellate Review*, 94 TEX. L. REV. *SEE ALSO* (forthcoming 2016) (noting concerns with high claim-construction reversal rates).

1. High Litigation Costs

Patent litigation has commonly been called a “sport of kings,” the sense being that it is so expensive that only extraordinarily well-heeled plaintiffs and defendants can afford to pursue it.⁹² Much of the cost is associated with the process of discovery, in which sides often exchange huge quantities of documents relating to the technical subject matter of the claimed invention, the nature of the accused product or process, and the developmental histories of both.⁹³ Testifying and non-testifying experts are often employed to analyze and explain aspects of such material, and the two sides can invest further amounts in the development of instructional or illustrative videos meant to help render the relevant technology comprehensible to generalist judges and juries. According to the results of a biannual survey by the American Intellectual Property Lawyers Association, such activities lead to litigation costs per side that frequently total to millions of dollars, with costs tending to rise with the perceived stakes.⁹⁴

Almost needless to say, such high litigation costs can have negative social effects. First, they can attract nuisance suits in which patent holders file suit with hopes not focused on a victory on the merits or even a settlement reflecting the expected value of a victory on the merits, but focused instead on the prospect of obtaining a settlement of, say, a few hundred thousand dollars or less from a defendant who simply wishes to avoid several hundred thousand dollars in the litigation costs expected to be necessary for defense against even a relatively weak patent-infringement suit.⁹⁵ Second, regardless of the presence of nuisance suits, high litigation costs can have a chilling effect on technological activity and competition. Private parties can look to steer clear of activities that might provide a plausible basis for subjecting them to costly patent-infringement litigation.⁹⁶ Alternatively or additionally,

⁹² Golden, *supra* note 30, at 2077 (“Patent litigation’s tendency toward great expense has caused it to be called the ‘sport of kings’”).

⁹³ See AIPLA 2015 SURVEY, *supra* note 13, at 37 (showing estimated median “End of discovery” costs for patent litigation that tend to equal or exceed estimated total costs for patent litigation).

⁹⁴ See *supra* text accompanying note 13.

⁹⁵ Colleen Chien et al., *Santa Clara Best Practices in Patent Litigation Survey*, 42 AIPLA Q.J. 137, 180-81 (2014) (“Nuisance suits are suits for patent infringement that the defendant is motivated to settle due to the high cost of litigation, even if the patent is weak or its economic value is low.”).

⁹⁶ Cf. Rebecca S. Eisenberg, *Noncompliance, Nonenforcement, Nonproblem? Rethinking the Anticommons in Biomedical Research*, 45 HOUS. L. REV. 1059, 1079 (2008) (noting survey results in which “respondents indicated that numerous patents would be more likely to deter a firm from pursuing a project at the outset than to cause it to abandon a project once it was underway”).

as has appeared to be the case with some industries, fear of suit for patent infringement can lead private parties to stockpile patents of their own in hopes that they can respond to a patent-infringement suit with a countersuit, with the result being cross-licensing between the two patent holding parties that avoids the cost of extended patent litigation but perhaps only at the substitute cost of patenting that occurs at a rate that is wastefully high compared to the social ideal.

2. Litigation Complexity and Longevity

Patent-infringement litigation in the district courts shares many of the stages and characteristics common to much complex civil litigation. After a patent holder files suit and the defendant answers and potentially countersues, “[t]he parties proceed to fact and expert discovery, motion practice, pretrial briefing, and trial.”⁹⁷

But district court patent litigation commonly features a relatively distinct claim construction phase.⁹⁸ Claim construction is process of interpretation generally reserved for a judge.⁹⁹ The claim construction phase of patent cases typically precedes summary judgment filings¹⁰⁰ and occurs after significant discovery but sometimes with an additional allowance for discovery after claim construction.¹⁰¹ In a conventional version of this phase, the parties brief disputes over the meanings of selected claim terms, the district court holds an oral hearing in which parties elaborate on their written arguments, and the district court then issues a claim construction order—often called a “*Markman* order”—that provides the district court’s constructions of relevant terms.¹⁰² According to a study using data from Lex Machina, for the approximately ten percent of patent suits initiated and terminated between 2000 and 2010 that resulted in a claim-construction

⁹⁷ PETER S. MENELL ET AL., PATENT CASE MANAGEMENT JUDICIAL GUIDE 2-3 (2009).

⁹⁸ *See id.* (describing “management of claim construction” as one of the “unique aspects of patent litigation”).

⁹⁹ *Id.* (noting the requirement “that the district court resolve the meaning of patent claim terms as a matter of law”).

¹⁰⁰ *Id.* (“Most often [claim construction] is handled as a separate process in advance of summary judgment motions”).

¹⁰¹ *See id.* at 2-5 to 2-6 (discussing practices with respect to discovery both before and after claim construction).

¹⁰² *See id.* at 2-4 to 2-5 (discussing the claim construction process); Pauline M. Pelletier, *The Impact of Local Patent Rules on Rate and Timing of Case Resolution Relative to Claim Construction: An Empirical Study of the Past Decade*, 8 J. BUS. & TECH. L. 451, 467 (2013) (noting that the “*Markman* order” is “so called after the seminal case on claim construction”).

order, the average time from case filing to claim construction was 1.8 years.¹⁰³

In addition to supplemental discovery, a variety of additional litigation phases can follow claim construction. As indicated above, the district court's claim construction is often followed by a summary judgment phase, in which parties file, support, and dispute motions for summary judgment and the court rules in response. If a case is not resolved by summary judgment or by settlement before or soon after the rulings on summary judgment, the case typically proceeds with further pretrial developments such as the development of jury instructions. Courts have recognized a right to a jury trial in patent cases involving a claim for damages, rather than merely an injunction,¹⁰⁴ and most present-day trials occur before a jury.¹⁰⁵ These jury trials may be followed by post-trial motions for a new trial or judgment notwithstanding the jury's verdict. The district courts might conduct additional post-jury-verdict proceedings relating to such concerns as a charge of inequitable conduct in obtaining a patent from the USPTO, a call for attorney fee shifting, or a demand for enhanced damages, and a motion for injunctive relief. A party may appeal a district court's final judgment to the court that hears virtually all such appeals, the U.S. Court of Appeals for the Federal Circuit, a circuit court of national jurisdiction that has its chambers in Washington, D.C.¹⁰⁶

Key aspects of this process of multistage litigation are (1) that it tends to take a relatively long time and (2) that much of its overall cost tends to occur during discovery phases that are relatively early compared to trial and post-trial phases. From filing to trial, district court proceedings commonly span at least about two years, with even a district known for "quick case schedules," the Eastern District of Texas, having a median time to trial of 1.8

¹⁰³ Pelletier, *supra* note 102, at 477 (describing results from study of 28,377 patent cases).

¹⁰⁴ Devon Curtis Beane, Note, *Whose Right Is It Anyway?: The Evisceration of an Infringer's Seventh Amendment Right in Patent Litigation*, 2011 U. ILL. L. REV. 1853, 1858 (noting courts' differential treatment of cases "where plaintiffs seek damages" and those where "the patentee seeks only injunctive relief").

¹⁰⁵ Mark A. Lemley, *Why Do Juries Decide If Patents Are Valid?*, 99 VA. L. REV. 1673, 1674 & n.1 (2013) ("Lawyers, scholars, and judges take for granted that when a patent case goes to trial, that trial will almost always be before a jury.").

¹⁰⁶ 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, 664 (2009) ("Since October of 1982, a single United States court of appeals, the Court of Appeals for the Federal Circuit, has had jurisdiction over all appeals from district courts in cases 'arising under an Act of Congress relating to patents.'"); John M. Golden, Response, *Too Human? Personal Relationships and Appellate Review*, 94 TEX. L. REV. *SEE ALSO* 70, 77 (2016) (discussing the location and "national jurisdiction" of the Federal Circuit).

years during the period from 2000 to 2007.¹⁰⁷ The long run-up to trial generally comes at substantial cost. According to the AIPLA's survey data, much of the cost of patent litigation is generated by pretrial discovery, which commonly accounts for at least about half of a party's out-of-pocket litigation costs.¹⁰⁸

Of course, the true costs of litigation can exceed out-of-pocket costs, and these overall costs might be even more heavily weighted toward pretrial discovery. A defendant's business might operate under a cloud of uncertainty until it can implement a "design-around" of asserted patent rights, a redesign of the defendant's products or processes that the defendant can claim steers well clear of any charges of infringement. Further, patent litigation can be most disruptive to a defendant's business during discovery, during which the number of key employees that are subjected to depositions, document production requests, and questioning by attorneys on one side or the other can far exceed the number of employees called as witnesses in a trial.¹⁰⁹

In sum, patent litigation in the district courts tends to be an expensive multistage process that, in the absence of settlement, takes years to conclude. As discussed in section I.C below, these aspects of patent litigation provide opportunities for abusive and strategic behavior. But as noted below in Part II, such aspects also provide substantial opportunity for improvement through institution of a new process of early-stage administrative review.

3. Rises in Patent Litigation and PAE Activity

Patent litigation has risen sharply in the last decade. This development has been documented in a number of empirical studies as well as a report released by the Executive Office of the President in 2013.¹¹⁰ Although the uptick in the number of non-practicing-entity-driven litigation events between 2010 and 2012 was driven in part by a rule change imposed

¹⁰⁷ Klerman & Reilly, *supra* note 16, n.121 & accompanying text ("Nationwide the median time to trial [in patent cases from 2000 to 2007] was 2 years.").

¹⁰⁸ AIPLA 2015 SURVEY, *supra* note 13, at 37-38 (listing median litigation costs through discovery that either approximately equal or exceed one half total median litigation costs).

¹⁰⁹ Cf. Colleen Chien, *Startups and Patent Trolls*, 17 STAN. TECH. L. REV. 461, 472 (2014) (noting that surveyed entrepreneurial companies commonly reported that "resolving [a patent] demand required founder time (73%) and distracted from the core business (89%)").

¹¹⁰ See Lauren Cohen, Umit G. Gurun, and Scott Duke Kominers, *The Growing Problem of Patent Trolling*, *Harvard University Working Paper* (2015).

Lauren Cohen, Umit G. Gurun, and Scott Duke Kominers, *Patent Trolls: Evidence from Targeted Firms*, *NBER Working Paper No. 20322* (2015). See also Colleen V. Chien, *Patent Trolls by the Numbers*, *Santa Clara University Legal Studies Research Paper No. 08-13* (2013). The government report: Executive Office of the President, *Patent Assertion and U.S. Innovation*, https://www.whitehouse.gov/sites/default/files/docs/patent_report.pdf (2013).

by the 2011 America Invents Act (AIA), the trend continued even following the AIA.¹¹¹ Evidence shows that most of the recent growth in patent litigation has been driven by PAEs. Using a random sample of 500 cases from 2007-2011, Jeruss et al. (2013) finds that “patent monetizers” make up nearly 40% of all cases brought, and are far more likely to end their cases in settlements. Likewise, Ewing and Feldman (2012) documents the emergence of large patent aggregators, and their unprecedented size and scope.

A widely purported explanation for the growth of patent litigation is an increase in the issuance of overly broad or otherwise invalid (“bad”) patents. The evidence on this point is somewhat ambiguous. Studies based on small samples, such as Shrestha (2010), Risch (2012), and Fischer and Henkel (2012), show that patents held or asserted by PAEs are of higher than normal quality, in the sense that they are more highly-cited and of wider technical breadth. These small sample studies are typically conducted using either patents of the most-litigious PAEs (e.g., Risch (2012)) or patents of PAEs who are covered most intensely in the media (e.g., Shrestha (2010), Fischer & Henkel (2012)). These selection mechanisms introduce a potential selection bias into the analysis, as, for instance, newspapers are more likely to cover higher-profile, larger-stakes, and more substantively salient cases.

In contrast to the small-sample studies, recent large-sample empirical evidence suggests that entities such as PAEs, on average, buy and litigate lower-quality patents. For example, Feng and Jaravel (2015) show that PAE patent portfolios are disproportionately comprise patents whose claims were allowed by patent examiners who spend relatively less time reviewing and narrowing claims. Studies such as Miller (2013), Love (2014), Allison et al. (2015), and Cohen et al. (2015a) present evidence consistent with the suggestion of lower quality from Feng and Jaravel (2015). Miller (2013) estimates that close to 60% of PAE owned patents have at least one invalid claim. Allison et al. (2015) find that in cases that reach decisions, PAEs are significantly more likely than practicing entities (PEs) to have their patents invalidated. Love (2014) shows that, compared to PEs, PAEs litigate patents which are closer to expiry and litigate a given patent significantly more often than PEs do. Using data on over 7,000 patent lawsuits between 2001 and 2012, Cohen et al. (2015) provide evidence corroborating Love: according to Cohen et al., PAEs assert patents that tend to be significantly older than PEs’

¹¹¹ See Christopher A. Cotropia, Jay P. Kesan, and David L. Schwartz, *Unpacking patent assertion entities (PAEs)*, *Minnesota Law Review*, 99, 649–703 (2014). See also Lauren Cohen, Umit G. Gurun, and Scott Duke Kominers, *The Growing Problem of Patent Trolling*, *Harvard University Working Paper* (2015). See also

Lauren Cohen, Umit G. Gurun, and Scott Duke Kominers, *Patent Trolls: Evidence from Targeted Firms*. *NBER Working Paper No. 20322* (2015) and Amanda G. Ciccattelli, *Record number of new federal patent cases filed in first half of 2015*, *Inside Counsel*, July 20, 2015.

asserted patents, and PAEs are over three times more likely to sue on a given patent than PEs are.

Beyond questions about the quality of the patents asserted by PAEs, there are also questions about the extent to which PAEs exploit plaintiff-friendly jurisdictions—i.e., “forum shop”—more aggressively than other patent owners. While the practice of choosing the most favorable jurisdiction in which a claim might be heard is not new to the judicial system (see Garner and Black (2004)) and in various circumstances might be defended as a legitimate practice of forum selection,¹¹² it has recently become a particular hallmark of patent litigation, where, as detailed in the immediately following subsection, the practice has arguably reached the level of an artistic grotesque. Because patent lawsuits are handled by federal district courts, they could in principle be adjudicated in any one of the 94 federal district courts. Comparing the geographic distributions NPE and operating firm patent lawsuits, Cohen et al (2015b) shows NPEs patent cases are differentially more concentrated in Eastern District of Texas, which has little to no industry footprint and no prior complex legal specialty in IP. Similarly, Allison et al. (2015) shows a similar using patent lawsuits that eventually reached a judgment: during the time period of the study, only 8% of such cases brought by PEs were filed in East Texas, whereas 27% of such cases brought by NPEs were filed there.

4. Forum Shopping and Selling

A patent owner commonly has a wide choice of fora in which to file suit, often including all or nearly all of the nation’s ninety-four district courts and sometimes including a further administrative forum, the International Trade Commission (ITC). By act of Congress, “[a]ny civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business.”¹¹³ Congress has included in another section of the same title of the U.S. Code a definition of “residency” “[f]or all venue purposes.”¹¹⁴ This definition provides in part that “an entity with the capacity to sue and be sued in its common name under applicable law” resides “in any judicial district in which such defendant is subject to the

¹¹² See, e.g., Debra Lynn Bassett, *The Forum Game*, 84 N.C. L. REV. 333, 335 (2006) (contending that “forum shopping is a legitimate, expressly authorized action when more than one forum satisfies the requisite legal criteria”); Mary Garvey Algero, *In Defense of Forum Shopping: A Realistic Look at Selecting a Venue*, 78 NEB. L. REV. 79, 111 (1999) (concluding that “forum shopping should be recognized as a legitimate practice”).

¹¹³ 28 U.S.C. § 1400(b).

¹¹⁴ 28 U.S.C. § 1391(c).

court's personal jurisdiction with respect to the civil action in question.”¹¹⁵ The U.S. Court of Appeals for the Federal Circuit has held that this definition determines the scope of residency for purposes of patent venue.¹¹⁶ As a result, companies that produce consumer products sold throughout the United States are typically able to be sued in any district in the country in which a plaintiff chooses to bring suit.¹¹⁷

For at least some patentees, there is an alternative forum beyond the district courts—namely, the International Trade Commission (ITC), an independent agency created “[t]o protect domestic industry from unfair trade practices.”¹¹⁸ Under § 337 of the Tariff Act, a patent holder engaged in U.S.-based activities that are threatened by patent infringement¹¹⁹ can file a complaint alleging an unfair trade practice based on patent infringement and, after a bench trial before an administrative law judge,¹²⁰ obtain injunctive relief in the form of an exclusion order prohibiting the importation of specified articles or a cease-and-desist order prohibiting domestic activities involving already imported matter.¹²¹ The ITC cannot provide remedies directed at patent infringement unconnected to importation, and it generally lacks power to award damages.¹²² But the ITC generally offers complaining parties the advantage of speed: although ITC litigation apparently tends to

¹¹⁵ *Id.*

¹¹⁶ See *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1578 (Fed. Cir. 1990) (“[T]he first test for venue under § 1400(b) with respect to a defendant that is a corporation ... is whether the defendant was subject to personal jurisdiction in the district of suit at the time the action was commenced.”); Mark Liang, *The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities*, 19 TEX. INTELL. PROP. L.J. 29, 39 (2010); Elizabeth P. Offen-Brown, Note, *Forum Shopping and Venue Transfer in Patent Cases: Marshall’s Response to TS Tech and Genentech*, 28 BERKELEY TECH. L.J. 61, 64-65 (2010) (discussing the interpretation of 28 U.S.C. § 1400(b)).

¹¹⁷ See Jeanne Fromer, *Patentography*, 85 N.Y.U. L. REV. 1444, 1451 (2010) (“[G]iven patent law’s permissive venue rules, a patent plaintiff may frequently choose to initiate a lawsuit in virtually any federal district court.”); Liang, *supra* note 116, at 39 (“Because many patents find use in everyday commercial products sold nationwide, *VE Holding* effectively allows patentee-plaintiffs to file their infringement suits anywhere in the country.”).

¹¹⁸ Sapna Kumar, *The Other Patent Agency: Congressional Regulation of the ITC*, 61 FLA. L. REV. 529, 544 (2009).

¹¹⁹ *Id.* at 534 (discussing the domestic-industry requirement for ITC complainants).

¹²⁰ Sapna Kumar, *Expert Court, Expert Agency*, 44 U.C. DAVIS L. REV. 1547, 1557 (2011)

¹²¹ 19 U.S.C. § 1337(d)-(f); Thomas F. Cotter & John M. Golden, *Empirical Studies Relating to Patents—Remedies*, in 2 THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (B. Depoorter, P. Menell & D. Schwartz eds., forthcoming) (noting the ITC’s power to issue exclusion and cease-and-desist orders).

¹²² See Cotter & Golden, *supra* note 121 (describing remedies available in the ITC).

cost about as much as district court litigation,¹²³ ITC litigation tends to be much faster. The average length of ITC proceedings is generally under 20 months¹²⁴—a span approximately equal to or less than the typical time to obtain a claim construction order in district court proceedings.¹²⁵ A further advantage for prevailing parties is a near certainty of injunctive relief: whereas, in the wake of *eBay Inc. v. MercExchange, L.L.C.*,¹²⁶ district courts have declined to grant permanent injunctions with some regularity,¹²⁷ the award of injunctive relief by the ITC remains substantially automatic.¹²⁸

The greater availability of injunctive relief has apparently helped make the ITC an increasingly popular forum for patent-infringement litigation initiated by PAEs, which commonly have difficulty obtaining injunctive relief in district courts.¹²⁹ Nonetheless, the overall number of ITC patent-infringement proceedings remains low compared to the number of district court cases. Whereas several thousand patent suits are initiated annually in district courts,¹³⁰ the ITC lists less than 80 total § 337 proceedings as having been instituted in every fiscal year from 2010 on.¹³¹ Consequently, this article focuses on concerns with district court litigation.

¹²³ AIPLA 2015 SURVEY, *supra* note 13, at 37-38 (listing median estimated litigation costs for all patent-infringement suits and for § 337 proceedings before the ITC).

¹²⁴ U.S. INTERNATIONAL TRADE COMMISSION, ANNUAL PERFORMANCE PLAN, FY 2015-2016 AND ANNUAL PERFORMANCE REPORT, FY 2014, at 11 tab.1 [hereinafter “ITC PERFORMANCE PLAN AND REPORT”] (indicating that the average length of a § 337 investigation was between 13.7 and 19.7 months in each of fiscal years 2010-2014), *available at* https://www.usitc.gov/documents/usitc_2015-2016_app_and_2014_apr_final.pdf; Joshua D. Furman, *Reports of Section 337’s Death Have Been Greatly Exaggerated: The ITC’s Importance in an Evolving Patent Enforcement Environment*, 30 BERKELEY TECH. L.J. 489, 491 (2015) (noting that ITC proceedings are “typically completed within eighteen months”).

¹²⁵ *See supra* text accompanying notes __.

¹²⁶ 547 U.S. 388 (2006).

¹²⁷ *See* Cotter & Golden, *supra* note 121 (observing that various empirical “studies have tended to show that post-*eBay* courts have granted motions for permanent injunctions about 75% of the time”).

¹²⁸ Kumar, *supra* note 120, at 1557 (“Once the ITC determines that a complainant’s patent has been infringed, it very rarely denies an exclusion order.”); *see also* Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, 98 CORNELL L. REV. 1, 16 (2012) (showing a 100% grant rate for injunctions in ITC proceedings from 2000 to 2011 in which the complainant prevailed). *But cf.* Cotter & Golden, *supra* note 121 (noting the decision of the President, acting through the U.S. Trade Representative, to abrogate a set of ITC exclusion and cease-and-desist orders on policy grounds).

¹²⁹ *See* Cotter & Golden, *supra* note 121 (reporting that empirical studies have found that, in the wake of *eBay*, “a patent owner’s status as a patent assertion entity was substantially associated with denial of injunctive relief”).

¹³⁰ *See supra* text accompanying notes __.

¹³¹ ITC PERFORMANCE PLAN AND REPORT, *supra* note 124, at 72 tab.C.2 (listing numbers of unfair import investigations and ancillary proceedings for fiscal years 2010 to 2016).

With respect to the district courts, the evidence of rampant forum shopping is strong. The broad provision for venue in patent cases has enabled a remarkable level of concentration of new patent suits in two federal districts that are commonly far from the centers of infringers' operations, the District of Delaware and the Eastern District of Texas.¹³² According to data compiled by Lex Machina,¹³³ more than 40% of the 5,000 or more new patent-infringement suits filed in each year from 2012 through 2015 have been filed in one or the other of these districts, and in 2015 nearly 45% of such suits were filed in the Eastern District of Texas alone.¹³⁴ Procedural and administrative differences between districts, such as local rules that help speed cases toward trial, the relative predictability of which judges will hear a patent suit within the chosen district, and the perceived nature of the jury pool,¹³⁵ are commonly thought to account for much of the attraction of the districts favored by plaintiffs. Some commentators have argued that districts like Delaware and the Eastern District of Texas have deliberately engaged in "forum selling" by adopting local rules and practices that are specifically designed to make their courts appealing to patent-owning plaintiffs.¹³⁶

¹³² See J. Jonas Anderson, *Court Competition for Patent Cases*, 163 U. PA. L. REV. 631, 632 (2015) ("There are ninety-four federal district courts in the United States, but nearly half of the six thousand patent cases filed in 2013 were filed in just two . . . : the District of Delaware and the Eastern District of Texas."); Klerman & Reilly, *supra* note 16 (noting that "the Eastern District of Texas emerged in the mid-2000s as the favored forum [for patent suits], despite lacking major population, corporate, or technology centers"); *id.* ("The District of Delaware's share of patent cases has long exceeded what one would expect based on its general civil case filings or its location in relation to technology centers."); see also Yan Leychkis, *Of Fire Ants and Claim Construction: An Empirical Study of the Meteoric Rise of the Eastern District of Texas as a Preeminent Forum for Patent Litigation*, 9 Yale J.L. & Tech. 193–232 (2007); Moore (2001).

¹³³ Lex Machina is a company that compiles and makes available data on intellectual property litigation in the United States, with information being made freely available to "qualifying public interest users" such as government officials and university scholars. Lex Machina, Public Interest, <https://lexmachina.com/public-interest/> (last visited Dec. 21, 2015).

¹³⁴ Data from Lex Machina, <https://law.lexmachina.com> (current through Dec. 21, 2015).

¹³⁵ An unusually high win rate for patentees in jury trials in the Eastern District of Texas might help explain its popularity with plaintiff patentees. See Leychkis, *supra* note 132, at ___ (reporting a 90% win rate for patentees in jury trials in the Eastern District of Texas, as opposed to the national win rate of 68%).

¹³⁶ See Anderson, *supra* note 132, at 634-35 (hypothesizing that "forum shopping in patent law is driven, at least in part, by federal district courts competing for litigants . . . primarily through procedural and administrative differentiation"); Daniel Klerman & Reilly, *supra* note 16 (contending that "judges in the Eastern District [of Texas] have consciously sought to attract patentees and have done so by departing from mainstream doctrine in a variety of procedural areas in a pro-patentee (pro-plaintiff) way"); *id.* ("The District of Delaware has many of the indicators of forum selling: a low summary judgment rate, a high percentage of cases resolved by trial (the highest in the country), a quick time to trial, and resistance to changes in forum."); Liang, *supra* note 116, at 43-45 (pointing to procedural factors such as

The apparent proliferation of forum shopping at the district-court level is ironic in that the institutional structure of patent law has been specifically and relatively unusually designed to limit forum shopping through use of a centralized court of appeals, the United States Court of Appeals for the Federal Circuit.¹³⁷ Unlike most civil litigation in the district courts, an appeal in a patent case generally is not heard by the court of appeals for the regional circuit in which the district court sits.¹³⁸ Instead, Congress has provided the Federal Circuit with exclusive jurisdiction over cases “arising under” the Patent Act or involving “a compulsory counterclaim arising under” that act.¹³⁹ But as indicated above, the relative harmonization of interpretations of substantive patent law that the Federal Circuit has helped promote has left district courts with considerable freedom to differentiate themselves through procedural rules and practice, thereby arguably undermining the goal of uniformity that the creation of the Federal Circuit was meant to promote.¹⁴⁰

B. SOCIAL WELFARE CONCERNS WITH PATENT LITIGATION

The patent system is commonly justified on grounds that it advances utilitarian goals of promoting technological progress or of increasing social welfare more generally.¹⁴¹ But there has long been concern that patents, like other forms of intellectual property rights, can undermine their own asserted aims by acting more as an innovation-sapping tax or rent-seeker’s delight than as a beneficent stimulus for those individuals and businesses that truly

“filing-to-trial time” and low summary-judgment grant rates in explanation of the popularity of venues such as the Eastern District of Texas and District of Delaware).

¹³⁷ F. SCOTT KIEFF ET AL., *PRINCIPLES OF PATENT LAW* 25 & n.101 (6th ed. 2013) (noting concern with “a spree of forum shopping” as a motivation for the Federal Circuit’s creation); Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 7 (1989) (noting that proponents of the act creating the Federal Circuit contended that “channeling patent cases into a single appellate forum would create a stable, uniform law and eliminate forum shopping”).

¹³⁸ See Paul R. Gugliuzza, *Rethinking Federal Circuit Jurisdiction*, 100 GEO. L.J. 1437, 1451 (2012) (“In the vast majority of cases, an appeal from a district court decision will be heard by the court of appeals for the circuit in which the district court is located.”).

¹³⁹ 28 U.S.C. § 1295(a)(1).

¹⁴⁰ *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (“It was just for the sake of such desirable uniformity [in treatment of individual patents] that Congress created the Court of Appeals for the Federal Circuit as an exclusive appellate court for patent cases.”).

¹⁴¹ Golden, *supra* note 35, at 509 (noting the “utilitarian goal that is standard in modern accounts: the patent system should at to promote the development, disclosure, and use of new technologies, ideally in a way that maximizes social welfare”).

move innovation forward.¹⁴² Such concern has become particularly sharp with respect to modern patent litigation.

1. General Social Welfare Concerns

Patent litigation's vagaries, costs, length, and opportunities for forum shopping generate a number of concerns. First, there are concerns raised by high litigation costs. Such costs can encourage so-called nuisance or strike suits whose expected value for patent holders is driven primarily by the accused infringer's expected litigation costs, rather than any estimate of the value of the patented invention.¹⁴³ Because of the disconnect between the value of such litigation-cost-driven enforcement activities and the value of the patented invention, there is little reason to believe that such litigation will provide awards to patent holders that are well-tailored to provide proper social incentives. Meanwhile, such suits depress the effective value of innovative activities undertaken by their targets, potentially resulting in inadequate forward-looking incentives for innovation.

On the flip side, anticipated litigation costs can generate an excessive barrier to patent enforcement. Certain patent holders, such as many startup companies, might find that their patents are effectively unenforceable as a result of the patent holders' limited access to capital and limited prospects of having their case cherry-picked for enforcement through contingent-fee representation. Even capital-rich patent holders might find that litigation costs effectively block enforcement of patents of moderate estimated value.¹⁴⁴ As with nuisance suits' effect on the value of others' innovative activities, the resulting depression of patents' effective value is likely to be substantially untethered to the associated inventions' social value.

Aside from litigation costs, there are reasons for concern with the vagaries of litigation outcomes. These concerns seem particularly strong where evidence of forum shopping suggests that some jurisdictions are significantly biased either for or against patent holders relative to others and therefore attract a disproportionately high or low number of patent-

¹⁴² See, e.g., Fritz Machlup & Edith Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. ECON. HIST. 1, 1 (1950) ("In actual fact, the controversy about the patent of invention is very old, and the chief opponents of the system have been among the chief proponents of free enterprise.").

¹⁴³ See *supra* text accompanying note 95.

¹⁴⁴ Of course, patent holders might try to bluff their way to a license or settlement in such situations, threatening suit or even sometimes initiating suit with hopes that the claims of infringement can be resolved profitably before the attorney-fee meter runs for too long. But even if such strategies sometimes succeed, they seem unlikely wholly to prevent at least partial loss of patent value as a result of litigation costs and their erosion of the credibility of enforcement threats.

infringement filings. But even without such evidence of forum shopping, there could be concern that courts, perhaps particularly courts that use juries to assess patent-infringement damages,¹⁴⁵ are not well equipped to ensure that their awards of monetary or injunctive relief reflect proper assessments of relative social value.¹⁴⁶ When economic experts struggle to assign a fraction of an overall product's value to an invention that might constitute only one of hundreds of that product's innovative components, one might justifiably worry that a court's estimate of that fractional value might end up being far too high or far too low.¹⁴⁷ Likewise, one might worry that courts will have difficulty determining when injunctions should be refused or delayed for fear of a windfall from "patent holdup" and when injunctions are necessary to ensure that infringers are sufficiently deterred from eroding patent rights' general value.¹⁴⁸ Although such vagaries might wash out in averages over the mine run of cases,¹⁴⁹ they can raise the level of unpredictability and therefore risk that the patent system creates. To the extent parties or their agents are risk prone or risk averse, such unpredictability generates another source of potential distortion of private-party incentives.¹⁵⁰

Software-related patents might be a particular focal point for concerns about patent litigation. According to a 2013 report by the Government Accountability Office, software-related patents were at issue in nearly half of the patent-infringement suits filed from 2007 through 2011, with suits over software-related patents accounting for nearly two thirds of defendants in

¹⁴⁵ See Thomas F. Cotter, *Reining in Remedies in Patent Litigation: Three (Increasingly Immodest) Proposals*, 30 SANTA CLARA HIGH TECH. L.J. 1, 21 (2013) (expressing a belief that "the right to trial by jury contributes to the high cost of patent litigation and to overinflated damages awards").

¹⁴⁶ Golden, *supra* note 35, at 580 ("[P]rice setting for patent rights is a difficult, if not substantially unmanageable, task for which courts are likely to be particularly ill equipped."); John M. Golden, *"Patent Trolls" and Patent Remedies*, 85 TEX. L. REV. 2111, 2150 (2007) (noting that "monetary compensation for patent rights is problematic even when the outlook is not prospective").

¹⁴⁷ See John M. Golden, *Reasonable Certainty in Contract and Patent Damages*, HARV. J.L. & TECH. (forthcoming) (discussing how experts can "generate assessments for reasonable royalties [for patent infringement] that differ by more than a factor of ten and sometimes even more than a factor of hundred").

¹⁴⁸ Further, limitations in the doctrinal bases for refusing remedies under patent law or for limiting anticompetitive behavior under antitrust law could mean that courts are in many cases relatively powerless to prevent patents from being used to generate barriers to entry disproportionate to the social value of incentives for innovation that those barriers create for the patent holders. But this is a problem more with the substantive law than with vagaries of patent litigation itself.

¹⁴⁹ Golden, *supra* note 35, at 580 (noting "classic arguments that [courts'] average correctness suffices to provide proper incentives").

¹⁵⁰ See *id.* at 581 (noting potential relevance of risk aversion).

new patent-infringement suits and just under ninety percent of “the increase in defendants over this period.”¹⁵¹ Consistent with preliminary empirical results from a study by one of this article’s co-authors,¹⁵² GAO also found that suits involving software-related patents had an unusual tendency to persist before the courts, thereby presumably tending to run up higher litigation costs. Specifically, GAO found “a statistically significant difference between suits involving software-related patents, of which 82 percent settled compared with 89 percent of suits that did not involve software-related patents.”¹⁵³ Commentators have argued that software-related patents tend to raise particular problems for assessments of patent scope, the validity of patent claims, and the proper value of patent damages.¹⁵⁴ Moreover, a recent Supreme Court decision has cast considerable doubt on the subject-matter eligibility—and thus validity—of many software-related patent claims.¹⁵⁵ As a result, the general concerns with patent litigation and patent examination discussed above are likely to be particularly well justified for software-related patents.¹⁵⁶

In short, even without considering stresses on the patent system resulting from the activities of PAEs, there are ample causes for concern that patent litigation’s high costs, difficult subject matter, and susceptibility to error or manipulation might undermine patent law’s aim to promote technological progress or social welfare more generally. The next subsection highlights how PAEs have arguably aggravated a number of these causes for concern.

¹⁵¹ U.S. GOVERNMENT ACCOUNTABILITY OFFICE, INTELLECTUAL PROPERTY: ASSESSING FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY, GAO-13-465, at 21 (2013) [hereinafter “GAO REPORT”].

¹⁵² See John M. Golden, *Software Patents and the Litigation Funnell: The Worst of All Worlds?* (2014) (on file with authors).

¹⁵³ GAO REPORT, *supra* note 151, at 25 n.46.

¹⁵⁴ See, e.g., JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 187 (2008) (contending that, because “software is an abstract technology,” software patents are especially likely to “have unclear boundaries and give rise to opportunistic litigation” (emphasis omitted)).

¹⁵⁵ See *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2352 (2014) (holding “that merely requiring generic computer implementation fails to transform [a specified] abstract idea into a patent-eligible invention”).

¹⁵⁶ GAO REPORT, *supra* note 151, at 45 (suggesting that software-related patents might be a better focus of patent reform efforts than any particular class of patent owners, while also noting that “most of the suits brought by [patent monetization entities from 2007 through 2011] involved software-related patents”).

2. Concerns with Patent Assertion Entities

To a great extent, concerns with the litigation and licensing activities of PAEs are no more than extensions of concerns about patent litigation more generally. PAEs can act as helpful intermediaries, identifying potential licensees and infringers and providing a means by which patent holders unable to afford litigation can obtain recompense for otherwise unenforceable rights.¹⁵⁷ But many believe PAEs abuse the patent system, exploiting litigation costs, legal vagaries, and hold-up potential to “tax” the work of innovators or consumers of innovation while failing to provide substantial, counterbalancing compensation to patent holders whose rights they acquire.¹⁵⁸ Non-PAE patent holders can abuse the system in similar ways. But at least on average, PAEs might be more effective at exploiting many of the patent system’s rough edges—in part because, compared to patent holders less focused on patent enforcement and licensing, PAEs tend to be less liable to patent-infringement countersuit, less likely to be bothered by a reputation for litigiousness, and possibly more efficient at patent enforcement.¹⁵⁹

Generally speaking, there seem at least four basic storylines for PAE activity that is abusive or, at least, substantially socially detrimental:

- 1) “*Hold-Up*”: An early concern with PAEs was that, like a mythological troll emerging from under a bridge, PAEs could use patent rights to

¹⁵⁷ See EXECUTIVE OFFICE OF THE PRESIDENT, PATENT ASSERTION AND U.S. INNOVATION 3 (2013) (discussing how “[p]atent intermediaries can play a useful social role”); Brian T. Yeh, *An Overview of the “Patent Trolls” Debate*, CRS REPORT FOR CONGRESS R42668, at 6 (2013) (noting defense of PAEs “on the grounds that they actually promote invention by adding liquidity, absorbing some of the risk otherwise borne by investors, and getting more royalties for small inventors”); Golden, *supra* note 35, at 559 (“Even the type of entity that might be viewed as an archetypal ‘patent troll’ ... might be understood ... as a commonly, or at least potentially, useful intermediary in a market for technology.”).

¹⁵⁸ See, e.g., Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2125 (2013) (discussing potential costs imposed by patent assertion entities and contending that “there is little evidence that trolls significantly increase rewards to inventors”); Yeh, *supra* note 157, at 6 (“PAEs have frequently been accused of imposing a ‘tax on innovation’ and undermining or impairing the incentives that patent law aims to create.”). *But cf.* Lemley & Melamed, *supra*, at 2151 n.148 (finding evidence inconclusive on the extent to which “trolls increase or decrease the amounts that fund” innovation and suggesting that trolls’ success might “bid up the prices to patents” and thus increase future returns to innovators).

¹⁵⁹ John M. Golden, *Patent Privateers: Private Enforcement’s Historical Survivors*, 26 HARV. J.L. & TECH. 545, 598 (2013) (discussing potential explanations for “a past tradition of relative restraint in patent rights’ enforcement and acquisition”); see also Christopher A. Cotropia, Jay P. Kesan & David L. Schwartz, *Unpacking Patent Assertion Entities*, 99 MINN. L. REV. 649, 650 (2014) (noting arguments that PAEs “are fundamentally different” from other plaintiffs because “asymmetric stakes” resulting from their general lack of liability to patent-infringement countersuit)

“ambush” a technology into which a supplier or user had become “locked in,” thereby extracting a ransom that had little to do with the merits of the patented invention.¹⁶⁰ For example, suppose that a computer-chip manufacturer invests \$5 billion in building a facility to produce a computer chip having a specific, arguably patent-infringing design.¹⁶¹ Suppose also that, after building the facility, the manufacturer would need to spend an additional \$1 billion in “switching costs” to redesign the facility to safely avoid any likelihood of infringement. On the other hand, if the manufacturer had known of the relevant patent before settling on its initial chip design, it could have designed the factory at no extra cost to produce a clearly non-infringing but functionally equivalent chip. In this hypothetical case, the patented invention apparently has added no value, but if asserted after “lock in,” the patent might allow its holder, armed with the threat of an injunction to shut down the plant, to extract as much as \$1 billion from the manufacturer.

- 2) *Exploiting System Vagaries for Unmerited Windfall*: Related to the classic hold-up story but somewhat distinguishable is a “lottery ticket” model under which PAEs exploit vagaries of the patent system to pursue a big and socially unmerited payoff.¹⁶² The value of patent rights can be very difficult to assess, and thus, even if one makes the heroic assumption that present rules regulating patentability are generally socially optimal, there is good reason to believe that courts will err in a substantial number of cases and perhaps by orders of magnitude in assessing patent value. The problem of determining the literal scope of patent claims has tied courts in knots for decades,¹⁶³ and juries may need

¹⁶⁰ See, e.g., Paul J. Heald, *Optimal Remedies for Patent Infringement: A Transactional Model*, 45 HOUS. L. REV. 1165, 1189 (2008) (observing that situations involving high “switching costs” “may cover many scenarios involving patent ‘trolls’”); Robert P. Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1583, 1590-91 (2009) (“The patent troll strategy is to take advantage of ‘lock-in’ that occurs as a result of [sunk cost] investments.”).

¹⁶¹ Cf. Noel Randewich, *Intel Shelves Cutting-Edge Arizona Chip Factory*, REUTERS, <http://www.reuters.com/article/2014/01/14/us-intel-arizona-idUSBREA0D1F920140114> (Jan. 14, 2014) (noting that an Intel manufacturing plant in Arizona was “originally slated as a \$5 billion project that in late 2013 would start producing Intel’s most advanced chips”).

¹⁶² Lemley & Melamed, *supra* note 158, at 2126 (describing “‘lottery-ticket’ trolls ... playing an uncertain shot at a big payout” in the form of “a big jury award against one or more entrenched players”).

¹⁶³ John M. Golden, *Construing Patent Claims According to Their “Interpretive Community”*: A Call for an Attorney-Plus-Artisan Perspective, 21 HARV. J.L. & TECH. 321, 323 (2008) (noting that, despite “[s]everal developments ... intended to bring greater

to assess an arguably even trickier question of infringement by equivalence if an accused product or process does not literally infringe.¹⁶⁴ Likewise, questions of patentability often combine hard technical inquiries with fuzzy standards.¹⁶⁵ Finally, in part because of difficulty in apportioning value between technologies that only appear commercially in larger bundles (e.g., the technology permitting one to switch “pages” on a smartphone by swiping a finger from left to right across the screen), expert opinions on “reasonable royalty” amounts for patent damages frequently differ by more than a factor of 10 or even 100.¹⁶⁶

- 3) “*Bottom Feeding*”: In accordance with a third storyline, at least some PAEs—characterized by Mark Lemley and Douglas Melamed as “‘bottom feeder’ trolls”¹⁶⁷—specialize in exploiting costs of litigation, legal advice, or legal uncertainty to extort value that is insufficiently tied to the merits of the patented inventions. A PAE could target a company at a particularly vulnerable moment: conventional wisdom holds “that companies are often sued for patent infringement shortly before their initial public offering.”¹⁶⁸ Under an alternative approach, PAEs can sue or send “demand letters” to hundreds and even thousands of potential targets, including relatively small firms and startups that are only end

predictability and rationality to claim construction,” “claim construction jurisprudence continues to bear hallmarks of unpredictability”).

¹⁶⁴ See Timothy R. Holbrook, *Equivalency and Patent Law’s Possession Paradox*, 23 HARV. J.L. & TECH. 1, 46 (2009) (observing that the doctrine of equivalents increases uncertainty about patent scope).

¹⁶⁵ Cf. Jason Rantanen, *The Federal Circuit’s New Obviousness Jurisprudence: An Empirical Study*, 16 STAN. TECH. L. REV. 709, 717 (2013) (discussing “the real challenge” involved in determining what inventions fail to satisfy patent law’s nonobviousness requirement).

¹⁶⁶ Golden, *supra* note 2, at 2151 (noting party positions on reasonable royalties that differed by factors of about 120 and 200); see also, e.g., *Apple, Inc. v. Motorola, Inc.*, No. 1:11-cv-08540, 2012 WL 1959560, at *3-7 (N.D. Ill. May 22, 2012) (reporting expert opinions for reasonable royalty damages differing by a factor of 140 for one patent and by a factor of 350 for another), *rev’d in irrelevant part and vacated in irrelevant part*, 757 F.3d 1286 (Fed. Cir. 2014). To the extent infringement has not yet occurred, the potential for an unmerited windfall might be effectively capped—at least in terms of average expectations—by the switching costs discussed in relation to “hold-up.” But if a PAE simply seeks past damages, the PAE has a purer play in the litigation “lottery.”

¹⁶⁷ Lemley & Melamed, *supra* note 158, at 2126.

¹⁶⁸ Tom Ewing, *Indirect Exploitation of Intellectual Property Rights by Corporations and Investors: IP Privateering and Modern Letters of Marque and Reprisal*, 4 HASTINGS SCI. & TECH. L.J. 1, 70 (2012).

users of the relevant technology.¹⁶⁹ Notoriously, PAEs have threatened suit against several thousand restaurants and hotels for providing wireless Internet service to customers¹⁷⁰ and also against various small businesses for “attaching a document scanner to an office computer system.”¹⁷¹ By offering a license for an amount at or substantially less than the expected cost of litigation—or perhaps even at or substantially less than the cost of obtaining a trustworthy attorney opinion on the relevant accusation¹⁷²—such PAEs can induce licensing or settlement payments from substantial numbers of targeted entities. The credibility of threats to sue can be bolstered by the systemic vagaries described above, and accused parties might be disadvantaged by an asymmetry in litigation costs. Patent suits might tend to be substantially cheaper for PAEs than their targets because PAEs can enjoy economies of scale in litigation and PAEs’ business models can make them less susceptible to substantial discovery or other common litigation costs. Moreover, there is a “public goods” problem associated with defense against patent assertions. A decision that invalidates a patent or significantly restricts its scope can generate “external benefits” for an accused infringer’s competitors and for consumers. Thus, collusive settlements with patentees are possible, and defenses against patent infringement might be expected to occur less than is socially optimal.¹⁷³

- 4) *Sponsored Harassment*: A final story, related to the point about collusive settlements, is that PAEs can be sponsored by parties who benefit from the PAEs’ demands or suits against others regardless of whether those actions are legally successful. One example of a suspected case of “commissioned” patent assertion involves MobileMedia Ideas LLC, a company that acquired over 100 patents and patent applications from part owners Nokia and Sony within months of

¹⁶⁹ See Edward Wyatt, *Obama Orders Regulators to Root Out ‘Patent Trolls’*, N.Y. TIMES, June 4, 2013 (noting that one PAE “threatened to sue 8,000 coffee shops, hotels and retailers for patent infringement because they had set up Wi-Fi networks for their customers”).

¹⁷⁰ *Id.*; see also Paul R. Gugliuzza, *Patent Litigation Reform: The Courts, Congress, and the Federal Rules of Civil Procedure*, 95 B.U. L. REV. 279, 280 (2015) (discussing suits against hotels, restaurants, and “popular podcasters”).

¹⁷¹ Wyatt, *supra* note 169.

¹⁷² Smith, *supra* note 8, at 208 (discussing patent assertion entities “sen[t] mass threatening letters targeting franchised hotels, coffee shops, stores, and restaurants” for their use of wireless technology and offered licensing fees of “\$2,300 to \$5,000”).

¹⁷³ Golden, *supra* note 159, at 616-17 (describing various “factors ... than can plausibly tend to depress patent challenges below the socially optimal level”).

its formation, and shortly thereafter began suing smartphone competitors such as Apple and Research in Motion.¹⁷⁴

The actual nature of the impact of PAEs on the patent system has been a matter of heated debate in both academic and policy-making circles, particularly in relation to calls for litigation reform. In March 2015, fifty-one scholars signed onto a letter to members of Congress stating that “a large and increasing body of evidence indicates that the net effect of patent litigation is to raise the cost of innovation and inhibit technological progress.”¹⁷⁵ The letter noted that various existing studies indicated, *inter alia*, that (1) “the majority of lawsuits are now filed by so-called ‘patent assertion entities’”; (2) “PAE litigation has been costing firms tens of billions of dollars per year since 2007”; (3) “[s]tartups and venture-backed firms, especially, report significant operational impacts from PAE lawsuits”; and (4) PAE lawsuits are associated “with a decline of billions of dollars of venture capital investment.”¹⁷⁶ Later that same month, a counter-letter from forty scholars disputed many of the earlier letters’ contentions, arguing that (1) “[t]he claim that patent trolls bring the majority of patent lawsuits is profoundly incorrect”; (2) “the claim that patent trolls cost U.S. businesses \$29 billion a year in direct costs has been roundly criticized”; and (3) “[s]tudies cited for the proposition that [non-practicing entity] litigation is harmful to startup firms, that it reduces R&D, and that it reduces venture capital investment are likewise deeply flawed.”¹⁷⁷ While expressing openness “to sensible, targeted reforms that consider the costs created by both plaintiffs and defendants in patent litigation,” the letter warned that “tinkering with the engine of innovation—the U.S. patent system—on the basis of flawed and incomplete evidence threatens to impede this country’s economic growth.”¹⁷⁸

This article does need to resolve hotly debated questions about whether PAEs are a plague on innovation. For purposes here, it seems

¹⁷⁴ Ewing, *supra* note 168, at 63. Outside the patent space but still in the realm of intellectual property, Microsoft is thought by some to have deliberately used agreement on a \$16.6 million Unix license from the SCO Group as a way to support a copyright campaign by SCO against Linux, IBM, and other open-source-software targets in the early 2000s. *Id.* at 56-57 (observing that Microsoft’s payment to SCO apparently occurred “shortly after the litigation against IBM began”).

¹⁷⁵ Letter to Congress 1 (Mar. 2, 2015), *available at* http://www.utdallas.edu/~ugg041000/IPScholarsLettertoCongress_March_2_2015.pdf. Three of this article’s co-authors were signators of this letter. *Id.* at 3-4 (listing signators).

¹⁷⁶ *Id.* at 1.

¹⁷⁷ Letter to Chairman Grassley, Ranking Member Leahy, Chairman Goodlatte, and Ranking Member Conyers 1 (Mar. 20, 2015), *available at* <http://cpip.gmu.edu/wp-content/uploads/2015/03/Economists-Law-Profes-Letter-re-Patent-Reform.pdf>.

¹⁷⁸ *Id.* at 1-2.

enough to note two things. First, there is the generally accepted fact that PAE suits and the number of targets of PAE suits have grown substantially over the last two decades, with the annual numbers of new PAE suits and PAE-suit defendants now tending to number in the thousands and to account for something on the order of half of all new patent suits and suit defendants.¹⁷⁹ Second, concerns about PAE activities highlight various weaknesses of the patent system that exist independently of PAEs:¹⁸⁰ (1) very limited pre-issuance review at the USPTO that leaves substantial doubt about the validity and scope of many issued patents;¹⁸¹ (2) high litigation costs, out-of-pocket or otherwise, that can attract use of patent litigation for purposes of harassment and, on the other hand, can prevent plaintiffs from seeking relief in district courts or deter defendants from mounting a defense even when it would be socially desirable for them to do so;¹⁸² and (3) vagaries with respect to the likely outcomes of patent litigation that can (a) deter risk-averse parties from suit or defense even when such would be socially desirable, (b) frustrate settlement efforts even when there are likely social gains from trade, and (c) encourage certain patent holders to play the “patent litigation lottery” in a rent-seeking pursuit of windfalls disproportionate to the social value of the patented invention.

Regardless of the existence or nonexistence of PAEs, such general weaknesses of the patent system might themselves be understood to justify this article’s proposal for patent litigation administrative review. After all, as early as 1813, Thomas Jefferson proposed that, to “better guard our citizens

¹⁷⁹ See, e.g., Cotropia, Kesan & Schwartz, *supra* note 159, at 649 (observing that, “[i]n the last decade, the landscape of patent litigation has radically shifted” toward enforcement by PAEs); James Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387, 390-91 (2014) (reporting that, “while [non-practicing entities (NPEs)] have been around for a long time, over the last few years, NPE litigation has reached a wholly unprecedented level,” with “2150 unique companies ... mount[ing] 5842 defenses in lawsuits initiated by NPEs” in 2011); David S. Olson, *On NPEs, Holdups, and Underlying Faults in the Patent System*, 99 Cornell L. Rev. Online 140, 140 (2014) (noting that the authors of two opposing articles relating to debates over non-practicing patent entities (NPEs) “agree that there has been very rapid growth in NPE patent assertion”);

¹⁸⁰ Cf. David S. Olson, *On NPEs, Holdups, and Underlying Faults in the Patent System*, 99 CORNELL L. REV. ONLINE 140, 149 (2014) (“[I]n some ways, patent assertions by [non-practicing entities] do not raise unique problems ... so much as they increase the severity of pre-existing problems.”).

¹⁸¹ See *supra* text accompanying notes __.

¹⁸² See *supra* text accompanying notes __. AIPLA data indicates that the costs of defending patent-infringement suits brought by PAEs are generally roughly comparable to those of defending against suits by other forms of patentees, even though frequently somewhat less than the latter when similar amounts are at stake. See AIPLA 2015 SURVEY, *supra* note 13, at 37-38 (listing median estimated litigation costs for infringement suits with various amounts at stake).

against harassment by law-suits,” questions about the validity of patents might best be turned over to “a board of Academic professors,” instead of the courts.¹⁸³ The later institution of pre-issuance examination by professional patent examiners was a step toward realization of Jefferson’s vision but, given the severe limitations on such examination,¹⁸⁴ a far from complete one. This article’s proposal can be understood as taking a further step toward Jefferson’s vision.¹⁸⁵

III. PROPOSAL FOR ADMINISTRATIVE REVIEW

This Part of the article motivates and then describes a proposed framework for administrative review of patent litigation. Section III.A discusses the basic economic theory for how a process of early-stage administrative review can promote dispute resolution and help screen out weak claims and arguments. Section III.A then presents a specific economic model for how such administrative review can increase the expected value of higher-quality claims and decrease the expected value of lower-quality claims and thereby lead to desirable settlement or termination of litigation in the specific context of patent-infringement suits. Section III.B lays out the particular framework for administrative review proposed here, outlining its processes and consequences as well as proposed limitations. Section III.C explains how various recent adjustments to the patent system and additional reform proposals do not obviate the desirability of early-stage administrative review.

A. ECONOMIC MOTIVATION FOR ADMINISTRATIVE REVIEW

1. Basic Economic Theory

Basic economic arguments for a preliminary administrative assessment of patent litigation are not hard to develop. As indicated earlier, high litigation costs and high uncertainty about litigation outcomes appear more than plausible contributors to what many perceive as a litigation morass that can distort economic incentives away from the social optimum. A preliminary administrative assessment of at least certain aspects of newly brought suits can mitigate problems of high litigation costs and high initial uncertainty by providing parties with an informative preview of how adjudication in the courts might proceed, thereby helping to effect an early

¹⁸³ 6 Thomas Jefferson, *The Papers of Thomas Jefferson: Retirement Series* 384 (J. Jefferson Looney ed., 2009)

¹⁸⁴ *See supra* text accompanying notes __.

¹⁸⁵ *See infra* text accompanying notes __.

convergence in the parties' assessments of a case's economic potential and a consequent increase in the likelihood of settlement.¹⁸⁶ Further, administrative review might alter the balance of incentives in another way by, for example, changing the likelihood of later attorney fee shifting if a party proceeds with litigating what an administrative body has judged to be an essentially meritless point. If there is reason to believe that administrative review has sufficient substantive accuracy, the alteration of incentives that it effects can limit the distortions, relative to the patent system's fundamental objects, created by high litigation costs and associated delays in district court adjudication. Administrative review might also increase the efficiency of litigation by facilitating parties' early exchange of relatively high "diagnosticity/cost" information for purposes of obtaining at least a preliminary judgment by an at least facially impartial government arbiter.¹⁸⁷

Of course, there can be concerns that the social costs of administrative review will swamp its social benefits. But by having private parties generally pay for that review, we can hope that they will restrain their use of the process so that its social benefits tend to outweigh its costs. Preliminary calculations suggest that this is likely to be the case, at least as long as either (1) the review process deters a sufficiently nontrivial fraction of patent-infringement lawsuits that are of low-quality on one side of the case or another or, alternatively, (2) the review process properly identifies a sufficiently nontrivial fraction of patent-infringement lawsuits as having low-quality claims or defenses on one side of the case or another.

2. A First Economic Model for Administrative Review

In this subsection, we construct a framework highlighting the proposed costs and (potentially large) benefits of an administrative review process attached as a front end to patent litigation in the district courts. In the next section, we provide a calibration distilling the main drivers of the model,

¹⁸⁶ Bert I. Huang, *Trial by Preview*, 113 COLUM. L. REV. 1323, 1335 (2013) (discussing "the familiar economic model, in which an increase in information sharing leads to convergence in the parties' forecasts about the outcome—and hence to a greater chance of settlement"); see also Golden, *supra* note 30, at 2087 (noting how an economic model of party incentives captures the "common understanding" that "discrepancies in parties' assessments of the probability of a litigation win or loss can frustrate possibilities for settlement"); cf. Robert G. Bone, *Modeling Frivolous Suits*, 145 U. PA. L. REV. 519, 593 (1997) (suggesting a process of "early judicial screening of frivolous suits based on a preliminary review of the merits").

¹⁸⁷ See Kaplow, *supra* note 87, at 1225 (suggesting, "[a]s an initial, rough cut at the problem [of ordering steps in multistage adjudication], it seems that the step with a higher diagnosticity/cost ratio should be earlier"); cf. Reilly, *supra* note 5, at 239 (advocating "staged litigation" in which "[d]iscovery is limited to one or a few issues, preferably less discovery-intensive issues, until the plaintiff demonstrates a meritorious case by prevailing on the initial issue(s)").

and giving an estimate of the likely impact of the administrative review procedure. This subsection's first economic model operates as follows:

1. A plaintiff p considers suing a defendant d .
2. The true underlying suit quality is represented by θ , a quantity known to p and d , but not verifiable. The probability that the court finds for the plaintiff is $\pi(\theta)$, a probability that is increasing in θ . If the court finds for the plaintiff, it awards damages $\delta > 0$; otherwise, it enforces penalty $\gamma \geq 0$ on the plaintiff. The plaintiff faces an administrative review cost c_p^1 and incurs an additional cost c_p^2 for litigating through a full court decision. The defendant must pay c_d to see the suit through a decision by the court.
3. If the plaintiff files suit, the defendant receives:

$$-\pi(\theta)\delta + (1 - \pi(\theta))\gamma - c_d = -\pi(\theta)(\delta + \gamma) - (c_d - \gamma)$$

if it pursues a court decision; we assume that it settles for δ' otherwise. Hence, the defendant pursues a decision if and only if

$$\delta' \geq \pi(\theta)(\delta + \gamma) + (c_d - \gamma).$$

4. The plaintiff will choose the settlement amount $\delta' = \pi(\theta)(\delta + \gamma) + (c_d - \gamma)$, so that the defendant is indifferent between settling and going to court. Thus, we see that the plaintiff will bring suit if and only if

$$0 \leq \pi(\theta)(\delta + \gamma) + (c_d - \gamma) - c_p^1 = \pi(\theta)(\delta + \gamma) - (c_p^1 + \gamma - c_d).$$

Note that if the cost to the defendant, c_d , is higher than $c_p^1 + \gamma$, then the plaintiff will always bring suit.

5. Now, we suppose that once suit is announced (i.e., after the payment of c_p^1 , but before settlement negotiations), pre-litigation administrative review yields a signal σ that is informative about the probability that the court finds for the plaintiff; specifically, we assume that the density of σ given θ , $f(\sigma | \theta)$, increases in θ in the sense of first-order stochastic dominance. Now, we have $\pi = \pi(\sigma, \theta)$, increasing in both arguments. We assume that $\pi(\sigma, \theta)$ and $\pi(\theta)$ are equally responsive to θ , in the sense that $\pi_{\theta}(\sigma, \theta) = \pi_{\theta}(\theta)$. The defendant now receives:

$$\begin{aligned} -E_{\sigma}[\pi(\sigma, \theta) | \theta]\delta + (1 - E_{\sigma}[\pi(\sigma, \theta) | \theta])\gamma - c_d = \\ -E_{\sigma}[\pi(\sigma, \theta) | \theta](\delta + \gamma) - (c_d - \gamma) \end{aligned}$$

if he pursues a court decision. Consequently, the plaintiff brings suit if and only if:

$$0 \leq E_{\sigma}[\pi(\sigma, \theta) | \theta](\delta + \gamma) - (c_p^1 + \gamma - cd).$$

Under the above model, between a situation with the pre-litigation administrative review system and a situation in which pre-litigation administrative review is absent, the difference in expected return for the plaintiff is:

$$(E_{\sigma}[\pi(\sigma, \theta) | \theta] - \pi(\theta))(\delta + \gamma) = E_{\sigma}[\pi(\sigma, \theta) - \pi(\theta) | \theta](\delta + \gamma) \quad (1)$$

$$= (\delta + \gamma) \int [\pi(\sigma, \theta) - \pi(\theta)] f(\sigma | \theta) d\sigma \quad (2)$$

Now, we note that, as $\pi_{\theta}(\sigma, \theta) = \pi_{\theta}(\theta)$, for fixed σ we must have $\pi(\sigma, \theta) - \pi(\theta) = \pi(\sigma, \theta') - \pi(\theta')$ for all θ, θ' . We then suppose that $\theta > \theta'$, and compute that:

$$\int [\pi(\sigma, \theta) - \pi(\theta)] f(\sigma | \theta) d\sigma = \int \pi(\sigma, \theta') - \pi(\theta') f(\sigma | \theta) d\sigma \quad (3)$$

$$\geq \int [\pi(\sigma, \theta') - \pi(\theta')] f(\sigma | \theta') d\sigma, \quad (4)$$

where the inequality follows from first-order stochastic dominance, as $\pi(\sigma, \theta') - \pi(\theta')$ is increasing in σ .

Thus, we see that the difference in expected return for the plaintiff is increasing in θ . It follows that there is some θ^* such that plaintiffs with cases stronger than θ^* return more (in expectation) after the addition of the review stage, while plaintiffs with cases weaker than θ^* do worse. Given the fixed costs of filing, c_p^1 , this means that plaintiffs with cases of quality higher than θ^* are more likely to file (in equilibrium) given the review, and plaintiffs with cases of quality lower than θ^* are less likely to file. Moreover, even for suits that are brought under both regimes, the higher-quality suits return more in expectation in the presence of pre-litigation review, and the lower-quality suits return less.

The results are strengthened if pre-litigation administrative review reduces court costs for a side that prevails in review, as this further increases the gains that this side receives upon pursuing suit. The results are qualitatively unchanged if settlement is not possible, as in that case, too, the comparison across litigation regimes hinges on the sign of equation (1) above.

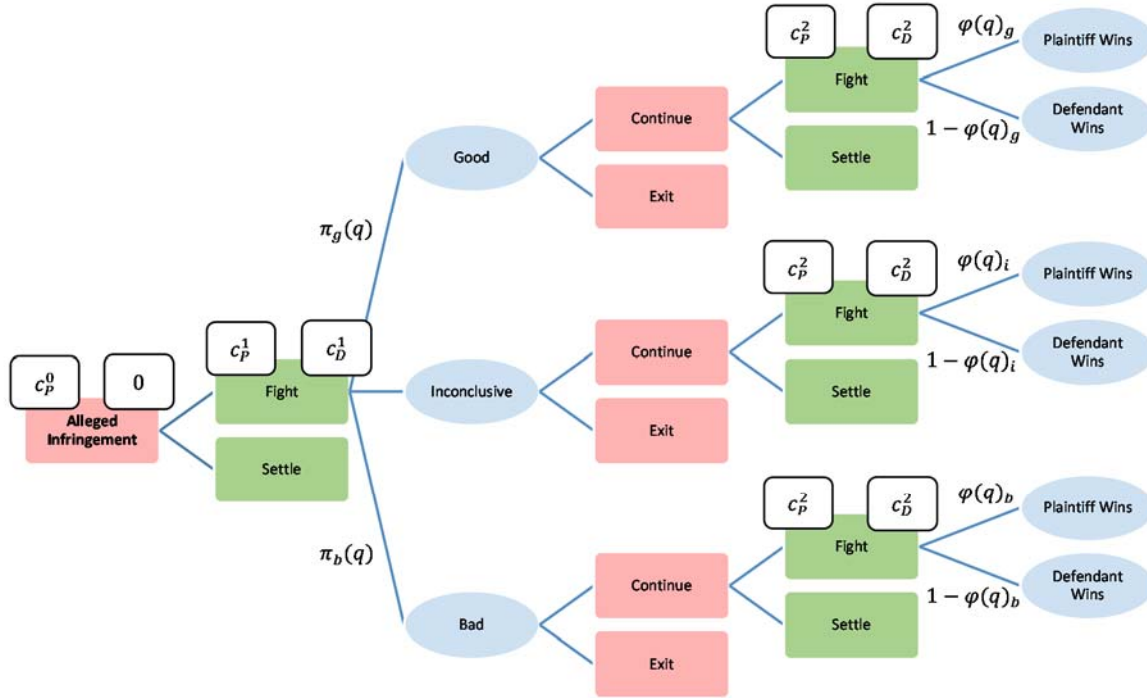
3. Calibration of a Second Model for Administrative Review

We will now calibrate a version of a discrete-time patent assertion model to assess the potential costs and benefits of pre-litigation administrative review by a Patent Litigation Review Board (PLRB). Parameter values for use in the model are and will be derived from existing research by co-authors for this article as well as the rich sum of research and data across the field, including that in government statistics and databases. We will provide sensitivity analyses for these parameter values in addition to giving the estimated impact on social welfare for maximum likelihood parameter estimates. Lastly, we will discuss the implications of model outcomes for likely incentive effects on agents, and the resulting equilibrium patent assertion behavior in the presence of the PLRB. Illustrative results from use of the model are presented here.

a. Model Structure

Consider a discrete-time, three period setup where the patent assertion and litigation decisions evolve as indicated in the diagram below.

Figure 1: Discrete-Time Assertion Model with Parameters



Model Parameters

c_P^0 = cost of bringing suit (e.g., cost of pre – litigation preparation)

c_P^1

= plaintiff payment to PLRB

+ plaintiff cost of gathering limited supporting documentation and brief drafting

c_D^1 =

defendant cost of gathering limited supporting documentation and brief drafting

c_P^2 = cost of court process for plaintiff

c_D^2 = cost of court process for defendant

$\pi_g(q)$ =

probability the PLRB rules substantially in favor of the plaintiff's case – a function of patent claim quality q

$\pi_b(q)$ =

probability the PLRB rules substantially in favor of the defendant's case – a function of patent claim quality q

$1 - \pi_g(q) - \pi_b(q)$ = probability the PLRB deems the case inconclusive

$\varphi(q)_g$ = probability that the court rules in favor of the plaintiff following a positive PLRB determination

$\varphi(q)_i$ = probability that the court rules in favor of the plaintiff following an inconclusive PLRB determination

$\varphi(q)_b$ = probability that the court rules in favor of the plaintiff following a negative PLRB determination

δ = transfer from defendant to plaintiff if the plaintiff wins

γ = transfer from plaintiff to defendant if the defendant wins

Settlement Amount

= constant fraction s of $E(\text{proceeds})$ if Fight at that node

The choice of assertion occurs at time T_0 . If assertion is chosen by the patent holder (P) at a cost c_P^0 , the decision then comes to the alleged infringer (D). At that point, D can decide whether to settle with P or to fight the infringement allegation. If D settles, she will receive (pay out) a fraction s of the expected value of the proceeds (losses) she would receive from choosing to fight the allegation. If she chooses to fight, the case will automatically be reviewed by the PLRB. This will cost D the amount c_D^1 , which is the cost to D of collecting and providing the limited supporting documentation, including appropriate briefing, to make her case to the PLRB. The PLRB process for P will cost c_P^1 , which includes not only the cost of collecting and providing the limited supporting documentation to make his case for infringement to the PLRB, but also an additional fixed fee to at least partially cover the cost of the process.

The PLRB's function will not be to provide an extensive preliminary judgment¹⁸⁸ in every case. Instead, in response to party filings, the PLRB will identify and flag particularly strong or weak positions on either side, delivering one of the following forms of judgment:

1. "Bad": Judgment predominantly and substantially adverse to the patent holder—e.g., a judgment that one more assertions made by the patent holder are clearly incorrect (meritless), without countervailing conclusions in favor of the patent holder. This happens with probability $\pi_b(q)$.
2. "Good": Judgment predominantly and substantially favorable to the patent holder—e.g., a judgment that one more assertions made

¹⁸⁸ Cf. Geoffrey P. Miller, *Preliminary Judgments*, 2010 U. ILL. L. REV. 165, 167 (using the term "preliminary judgment" in a somewhat different sense to refer to a proposed form of "tentative assessment of the merits of the case, based on the same sorts of information that the courts already consider on motions for summary judgment").

by the patent holder are clearly correct, without countervailing conclusions in favor of the patent challenger. This happens with probability $\pi_g(q)$.

3. “Inconclusive”: An inconclusive judgment, which happens with probability $1 - \pi_g(q) - \pi_b(q)$, and can result when the PLRB draws no conclusions in favor of one side or the other or when the PLRB’s conclusions are essentially balanced so that neither side gains a substantial advantage.

Following the PLRB’s decision, P must decide whether to continue to formally pursue charges of alleged patent infringement, or exit from the process. If P chooses to continue with formal charges, then D must decide how to respond. D can choose to settle, which, if it occurs, will be at a fraction s of the expected value of the proceeds she would receive from choosing to fight the allegation in court. Alternatively, D can fight the infringement allegation in court. If she does, litigation will cost D the amount c_D^2 . D ’s expected proceeds will depend on the information revealed by the decision of the PLRB along with underlying claim quality q . Were the PLRB to give a decision of “Bad” for instance, D ’s expected proceeds from a court procedure would be $((1 - \varphi(q)_b) * \gamma - (\varphi(q)_b) * \delta)$. Subtracting her cost of fighting in court of c_D^2 , gives an expected payoff of fighting in court in the *Bad* case of $-c_D^2 + ((1 - \varphi(q)_b) * \gamma - (\varphi(q)_b) * \delta)$. The analog expected payoff for P of going to court in this *Bad* state is then $-c_P^2 + ((\varphi(q)_b) * \delta) - (1 - \varphi(q)_b) * \gamma$. The expected payoffs in cases of *Good* and *Inconclusive* PLRB decisions are constructed identically using the respective probabilities in those states.

The discrete-time assertion model can be solved recursively, using each decision made by D and P , which decisions will depend on expected costs and payouts of each node with each player being assumed to be a rational profit maximizer. Consequently, the model will not only give the decision of each actor— D and P —at each node, but conditional on these decisions and payoffs, the expected value of bringing a patent infringement claim of quality q . Further, the model allows us to calibrate all of these decisions varying each parameter value.

b. Scenario Analyses and Resulting Welfare Analysis

[This section will present and analyze multiple calibrations of the discrete-time assertion model using different combinations of illustrative parameters.]

B. FRAMEWORK FOR ADMINISTRATIVE REVIEW

Fundamental concerns with patent litigation are the high cost and substantial delay that it tends to entail before parties can obtain court rulings on claim construction, never mind a final determination on a question of whether an accused product or process infringes or whether one or another patent claim is invalid. Such cost and delay can frustrate both accused infringers and cash-poor patent holders. Cost and delay can combine with uncertainty about patent litigation's results to generate opportunities for socially undesirable litigation behavior—whether in the form of nuisance suits brought by patentees, holdout behavior by recalcitrant infringers, or otherwise. An early-stage administrative review process can counteract these effects of cost, delay, and uncertainty by providing relatively quick, cheap, and impartial guidance on a patent suit's merits during a time span, the first several months after a patent suit is filed, when decisive judgments from a court are generally hard to obtain. A further advantage of a centralized administrative review process is that it can provide a check on forum shopping as well as an opportunity to gather centralized information on the patent litigation system's performance, whether with respect to forum shopping or other concerns. This section discusses the nature of the proposed review process and how it might be implemented.

1. Proceedings Before the Patent Litigation Review Board

The proposed administrative review would be an automatic process that would occur immediately after the filing of a patent suit in a district court. This automatic review might be viewed as a variant of the required review of a *qui tam* False Claims Act complaint by the Department of Justice after the filing of the complaint in district court.¹⁸⁹ Although one can imagine any of a number of ways in which preliminary administrative review should

¹⁸⁹ See U.S. Department of Justice, False Claims Act Cases: Government Intervention in Qui Tam (Whistleblower) Suits, www.justice.gov/sites/default/files/usao-edpa/legacy/2011/04/18/fcaprocess2_0.pdf (last visited on June 5, 2015) (noting that a complaint under the False Claims Act is filed under seal for “at least sixty days” to permit investigation of the allegations by the Department of Justice, with the DOJ needing to show “good cause” “if it wants the case to remain under seal” beyond 60 days). An alternative proposal under which a complainant first files directly with the USPTO might be viewed as a variant of the requirement of exhaustion of an initial administrative process for purposes of certain employment discrimination claims. See U.S. Equal Employment Opportunity Commission, Filing a Charge of Discrimination, <http://www.eeoc.gov/employees/charge.cfm> (last visited June 5, 2015) (“All of the laws enforced by EEOC, except for the Equal Pay Act, require you to file a Charge of Discrimination with us before you can file a job discrimination lawsuit against your employer.”).

proceed, this article proposes a specific potential framework as a starting point for discussion.

This article's specifically proposed process would unfold as follows. Upon the filing of a patent-infringement suit in a district court,¹⁹⁰ the "Patent Litigation Review Board" (PLRB or Board) would be notified. Unless all parties to the district court suit opted out, the Board would conduct a paper hearing in which parties would be allowed to file documentary arguments and evidence relating to questions of patent infringement, validity, and enforceability. Although attorney representation would be advised, the Board would allow parties to present materials believed to be relevant either pro se or through qualified non-attorney representatives such as, in a business entity's case, their chief officers or owners.¹⁹¹

Including time for party filings, the Board would have 180 days from the time of notification of suit to issue its determinations.¹⁹² With consent from all parties, however, the Board would be able to extend the time for review. The district court would automatically stay proceedings during the administrative review process although, on a showing of good cause, the district court would have power to lift the automatic stay in order to consider a motion for a preliminary injunction, temporary restraining order, or dismissal under Federal Rule of Civil Procedure 12(b)(6). Under existing law, the Board might trigger a further stay of district court proceedings by causing the initiation of post-issuance review at the USPTO.¹⁹³

¹⁹⁰ Suits triggering administrative review would include declaratory judgment actions in which a party seeks a ruling of non-infringement or patent invalidity or unenforceability.

¹⁹¹ Cf. 5 U.S.C. § 555(b) ("A person compelled to appear in person before an agency or representative thereof is entitled to be accompanied, represented, and advised by counsel or, if permitted by the agency, by other qualified representative."). Allowance for non-attorney representation will enable business entities that cannot afford an attorney (e.g., cash-poor startups) to present their case to the board and, if they obtain a favorable determination from that board, to potentially avoid an uncontested default judgment in court, where non-attorney representation of a business entity is generally not allowed, through the board's submission of its determination to the district court. See *infra* text accompanying notes ___.

¹⁹² The 180-day time period is modeled on the roughly 6-month period currently allowed for the USPTO to decide whether to initiate an inter partes review or post-grant review. See 35 U.S.C. 35 U.S.C. § 314(b) (requiring a USPTO decision within three months of a preliminary response to a request for inter partes review); *id.* § 324(b) (requiring a USPTO decision within three months of a preliminary response to a request for post-grant review); 37 C.F.R. § 42.107(b) (providing essentially three months for a patent owner to file a preliminary response to a request for inter partes review); 37 C.F.R. § 42.207(b) (providing essentially three months for a patent owner to file a preliminary response to a request for post-grant review).

¹⁹³ Jonathan Stroud, Linda Thayer & Jeffrey C. Totten, *Stay Awhile: The Evolving Law of District Court Stays in Light of Inter Partes Review, Post-Grant Review, and Covered Business Method Post-Grant Review*, 11 BUFF. INTELL. PROP. L.J. 226, 237-38 (2015)

For purposes of the preliminary administrative review, the parties would be expected to focus on issues with respect to which they believe they can establish a decisive case through already available documentary evidence, affidavits, and written argument. There would be no provision for discovery. In this way, the hope is that the administrative review can prioritize the presentation of what parties believe to be crucial and already available informative evidence on potentially decisive issues, rather than wait to present such evidence and associated argument after a general process of discovery.¹⁹⁴

Within the original or extended stay period, the Board would either (1) register a conclusion that limits on time and evidence did not permit a substantive determination or, alternatively, (2) provide a substantive determination on whether, in its view, a reasonable patent attorney, presented with the evidence at hand, would conclude that, under existing law, one side or the other had established clearly and convincingly the correctness of its position, with there being no substantial question that additional evidence would lead to a different conclusion.¹⁹⁵ For example, a patent holder might produce documentary evidence of the workings of an accused infringing device that, in the absence of any substantial impeachment by the accused infringer, the Board would find conclusively established that the device infringed—or at least satisfied one or more key elements of relevant patent claims. In another case, an accused infringer might produce documentary evidence of the workings of an accused infringing device that, in the absence of any substantial impeachment by the patent holder, the Board would find conclusively established that the device did not infringe—i.e., did not satisfy at least one element of relevant patent claims. Because the Board would have the option of not issuing a substantive determination on an issue raised before it, parties would have an incentive to highlight and prioritize their best arguments. The Board could further encourage such prioritization by regulating the length of filings presented to it.

(discussing statutory provisions and judicial practices with respect to stays of district court litigation pending inter partes review or post-grant review).

¹⁹⁴ Cf. Kaplow, *supra* note 87, at 1227 (arguing that “it often may make sense to organize staging by type of evidence,” perhaps “begin[ning] with key documents or only a few central witnesses”).

¹⁹⁵ The standard proposed here is meant to echo both the established practice of patent attorneys’ providing opinion letters on whether a particular product or process infringes a valid and enforceable patent claim and an inquiry relevant to the current standard for whether a court will issue a preliminary injunction in patent cases—namely, whether there is a substantial question about infringement or patent claim validity, *Trebro Mfg., Inc. v. Firefly Equip., LLC*, 748 F.3d 1159, 1165 (Fed. Cir. 2014) (“An accused infringer can defeat a showing of likelihood of success on the merits by demonstrating a substantial question of validity or infringement.”).

The Board’s reasoning and determinations would generally be made publicly available¹⁹⁶ and would be admissible in court although, to avoid constitutional concerns with jury rights or the prerogatives of Article III courts, the Board’s determinations on substantive matters would only be advisory, rather than binding. There would be no judicial review of the Board’s determination independent of continuation of the original district court action or analogous proceeding. The trial court would conduct a trial de novo, but the courts would accord the Board’s determinations weight in the manner of *Skidmore v. Swift & Co.*¹⁹⁷ for agency statutory interpretations—in other words, giving those determinations weight in accordance with the Board’s expertise, its care in deliberation, and the quality of the evidence before it.¹⁹⁸

The Board’s determinations would have some effects beyond their ability to influence later court decisions under a *Skidmore*-like standard. First, if the Board found that, under the “no substantial question” standard, a patent claim is invalid based on grounds that are a permissible basis for USPTO post-issuance review, the Board’s determination would automatically trigger a right to such reexamination or review at the option of the successful challenger to the claim’s validity. Second, if a party proceeds to court in the face of an adverse “no substantial question” determination by the Board and if the party loses on that same issue on grounds identical to those invoked by the Board, that party would presumptively have to pay court costs and reasonable attorney fees associated with the opposing side’s contestation of that issue in the later proceedings. Third, and relatedly, if a party loses before the Board, the party might need to pay costs associated with the Board proceedings and, in exceptional cases, might be required to pay reasonable attorney fees to the other side in compensation for the cost of representation before the Board. Fourth, the Board’s determinations could factor into later assessments of whether district court litigation has involved a violation of Rule 11 of the Federal Rules of Civil Procedure or whether patent infringement should be considered willful and thus a potential basis for enhanced damages. Finally, if the Board rules in favor of a party, such as a cash-poor business entity, that lacks the capacity to appear in court to defend itself, the Board would intervene in any continuation of the relevant

¹⁹⁶ As with court opinions, in appropriate circumstances confidential information might be redacted from publicly available versions of the board’s reasoning and determinations.

¹⁹⁷ 323 U.S. 134 (1944).

¹⁹⁸ *Id.* at 140 (“We consider that the rulings, interpretations and opinions of the administrator under this Act, while not controlling upon the courts . . . , do constitute a body of experience and informed judgment to which courts and litigants may properly resort for guidance.”). Factors in such weight could include whether Board determinations were the unanimous determinations of a multi-member panel.

district court proceeding to make its reasoning and determination part of the record before the district court.

Generally speaking, complainants who have initiated the relevant suit in district court would pay for the Board's preliminary review process through administrative fees determined by rule.¹⁹⁹ As with various USPTO fees, there would be substantially reduced fees for small entities and micro-entities who are not stand-ins for better-monetized entities.²⁰⁰ Further, by request, parties, including business entities, might qualify for *in forma pauperis* treatment, under which the Board would waive fees and cover these parties' share of the costs through surplus from administrative fees collected from other parties or a "patent system cost" added to patent-issuance and maintenance fees for patent holders generally and collected on behalf of the Board. If there is concern that the fees required to pay for review would tend to be too high to serve interests in access to justice, the preliminary review procedure can be more generally supported through increases to existing fees associated with the obtaining and maintenance of patent rights, whether or not asserted in litigation. With the USPTO granting about 300,000 new patents each year,²⁰¹ an increase of only a couple hundred dollars in fees associated with patent issuance might do much, indeed perhaps more than enough, to pay for PLRB administrative costs.²⁰²

¹⁹⁹ If fees for inter partes review and post-grant review serve as guides, standard administrative costs might be in the nature of \$10,000 to \$30,000. U.S. Patent & Trademark Office, America Invents Act (AIA) Frequently Asked Questions, <http://www.uspto.gov/patent/laws-and-regulations/america-invents-act-aia/america-invents-act-aia-frequently-asked> (Dec. 13, 2014) ("For petitions [for inter partes review] filed on or after March 19, 2013, the request fee is \$9,000 plus a fee of \$200.00 for each claim over 20, and the post-institution fee is \$14,000 plus a fee of \$400.00 for each claim over 15."); *id.* ("For petitions [for post-grant review] filed on or after March 19, 2013, the request fee is \$12,000 plus a fee of \$250.00 for each claim over 20, and the post-institution fee is \$18,000 plus a fee of \$550.00 for each claim over 15."). Because the USPTO could tailor preliminary review to the circumstances and because preliminary review would involve nonbinding assessment according to a summary judgment standard, as opposed to binding judgments according to a preponderance-of-evidence standard, costs for preliminary review might be significantly lower than fees for inter partes review and post-grant review might suggest.

²⁰⁰ Frakes & Wasserman, *supra* note 66, at 120 (discussing potential implications of reduced USPTO fees for "small entities" and "microentities").

²⁰¹ U.S. Patent & Trademark Office, U.S. Patent Statistics, Calendar Years 1963-2014 (2015) (indicating that the USPTO granted 300,678 utility patents in 2014).

²⁰² See the discussion *infra* at text accompanying notes 204-205, providing a basis for estimating PLRB administrative costs at about \$60 million per year, an amount that might be raised by obtaining \$200 in additional fees for each of 300,000 issued patents.

2. Reporting Responsibilities and Sunset Provision

Section III.A has argued that early-stage administrative review can add value by permitting early clarification of likely outcomes in patent litigation. For this to occur in practice, however, there must in fact be patent-infringement disputes in which parties are willing and able to raise issues for which there is a reasonable chance that the administrative body will deliver a definitive judgment. A large number of the complaints about current patent litigation indicate a belief that many patent-infringement disputes that result in the filing of suit are of this nature—i.e., featuring obviously weak and perhaps even bad-faith allegations of infringement or recalcitrant refusals to pay for a patent license even in a relatively clear case of infringement. If this belief is true, one would expect to see a significant number of litigants take advantage of the proposed administrative review process. If this belief is false, the PLRB would presumably deliver few administrative determinations of “no substantial question” with respect to issues in individual patent cases, either because parties neglected even to argue for such a determination or because the Board found insufficient basis for it.

Even if PLRB assessments of “no substantial question” turned out to be rare, the PLRB could make an important contribution to patent policy. Questions of whether, how, and to what extent our patent system is broken or in crisis have sharply divided academics and policymakers alike, and part of the difficulty in overcoming such division has been limited information on what is happening on the ground. Lack of information on the contents of private licensing and settlement agreements is a major stumbling block²⁰³ and will remain one under this article’s proposal. Also problematic is difficulty in assessing the relative quality of individual patent-infringement suits, a difficulty complicated by differences between trial fora and by selection effects of settlement, which leaves only a relatively small and likely unrepresentative subset of disputes subject to decisive judgments. The PLRB will be in a centralized, start-of-litigation position uniquely suited for the gathering of information on the full cross-section of patent-infringement suits filed in district courts each year. Thus, at worst, experience with the PLRB should provide substantial insight into the nature of the current patent-litigation landscape, providing information that might help break at least a few of the information impasses that impeded the reaching of common ground in policy debates. With a view toward the PLRB’s information-gathering potential, the PLRB would be expected to provide annual reports to Congress on the state of U.S. patent litigation as seen from the PLRB’s perspective.

²⁰³ Golden, *supra* note 35, at 550 (observing that “the terms of patent-licensing agreements ... are generally confidential”).

This is not to say that such information gathering would suffice to justify the PLRB's indefinite continuation. If USPTO fees for post-issuance review proceedings are a reasonable guide, administrative costs associated with the operation of the PLRB might be expected to be in the nature of \$10,000 per case,²⁰⁴ or in the nature of a total of about \$60 million per year if we assume something like the current 6,000 lawsuits per year. Given (1) the fact that attorney fees in individual patent disputes can exceed \$10 million and (2) concerns that U.S. patent litigation is costing businesses tens of billions of dollars per year, adding such an administrative cost to the system seems a reasonable short-term undertaking as an effort at a policy solution. But as indicated above, information gathered by the PLRB might indicate that widely indicated beliefs about the patent-litigation landscape are wrong. Further, parties might figure out how to game PLRB review in ways that undermine its intended social value—for example, by increasing patent suit filings in order to increase the odds of “winning the lottery” by obtaining at least one favorable assessment from PLRB administrative review. Consequently, this article proposes that Congress initially adopt PLRB review only on a pilot basis. Absent additional congressional action, the PLRB pilot would terminate after a specified period—for example, three years—that allows a reasonable time for the maturation of practices within and before the PLRB, as well as for the gathering of information to aid future policymaking. If Congress wishes to restrict the impact and burden of PLRB review further, it might apply such review only to a subset of patent cases—for example, a subset of randomly selected cases or a subset of cases involving particular types of subject matter such as software or business methods.

3. Agency Location for the Patent Litigation Review Board

There seem at least two main candidates for the location of the proposed Patent Litigation Review Board (PLRB) within the administrative state. First, the Board could be folded into the USPTO, either as a new division or as a branch of an expanded Patent Trial and Appeal Board (PTAB). Through the USPTO's various post-issuance proceedings as well as appeals from examiner rejections of patent applications, the PTAB has experience with essentially the full range of validity questions that could face the PLRB. Because literal-infringement analysis parallels analysis of a patent claim for satisfaction of the requirement of novelty, many infringement questions would likely not be a major leap from questions that the PTAB already faces. Further, the most prominent basis for charging patent unenforceability has tended to be inequitable conduct in the process of

²⁰⁴ See *supra* note 199.

obtaining the patent from the USPTO, an issue that USPTO judges might be particularly competent to assess. Moreover, the USPTO already has experience in recruiting and training administrative patent judges and in setting fees for associated review processes. Location of the PLRB within the USPTO might also make it easier to coordinate PLRB review with the triggering of USPTO post-issuance review and might simplify the funding arrangements for the PLRB, particularly to the extent PLRB activities are to be funded by patent application or maintenance fees. More generally, location of the PLRB within the USPTO would avoid the need to construct a new administrative home for the proposed process of litigation review.

On the other hand, there are reasons to resist the upfront convenience of folding the PLRB into the PTAB or of establishing the PLRB as a new division within the USPTO. First, there is the concern that the USPTO already is strained in performance of its current missions, and the generally increasing inflow of new patent applications²⁰⁵ and petitions for adversarial forms of post-issuance review²⁰⁶ suggests that this strain is unlikely to let up soon. Second, the PLRB's job would in a substantial sense be to preview likely outcomes in litigation, rather than before the USPTO. These sets of likely outcomes can diverge because the USPTO might have taken a stance on an issue—for example, the patentability of genetic sequences—that a court would view as more open. A PLRB located within the USPTO might have more difficulty acting as a faithful previewer of likely court outcomes as opposed to a follower of established USPTO positions. Relatedly and thirdly, the USPTO has traditionally (and explicitly) viewed patent applicants and owners as its “customers.” Despite recent increases in the use of USPTO post-issuance proceedings to bring inter partes patent challenges,²⁰⁷ this fact, along with the USPTO's reliance on application and maintenance fees for its funding²⁰⁸ and more general concerns about USPTO “capture,”²⁰⁹ might

²⁰⁵ See U.S. Patent & Trademark Office, U.S. Patent Statistics Chart: Calendar Years 1963-2014 (showing that the number of U.S. utility patent applications grew from 61,841 in 1984 to 107,233 in 1994 to 189,536 in 2004 and to 285,096 in 2014), *available at* http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm; *cf.* Golden, *supra* note 59, at 463 (noting that, “at least for the more than century-old categories of utility and design patents, the general long-term trend has been for the number of patents issued each year to increase at an accelerating pace”).

²⁰⁶ See *supra* text accompanying notes __.

²⁰⁷ See *supra* text accompanying notes __.

²⁰⁸ See Michael D. Frakes & Melissa F. Wasserman, *Does Agency Funding Affect Decisionmaking?: An Empirical Assessment of the PTO's Granting Patterns*, 66 VAND. L. REV. 67, 69 (2013) (“Since 1991, the PTO's budget has largely been derived from patent examination and post-allowance fees.”).

²⁰⁹ See John M. Golden, *Patentable Subject Matter and Institutional Choice*, 89 TEX. L. REV. 1041, 1098 (2011) (discussing concerns of USPTO “capture or bias”).

justify worry about a USPTO-based body's capacity to make determinations with the impartiality and appearance of impartiality thought desirable even with respect to only advisory determinations that formally serve as no more than inputs to Article III court proceedings. Finally, although the USPTO has shown an ability to recruit highly qualified attorneys for the PTAB, PTAB judges already number in the hundreds, and there might be some value in having a separate, relatively small body to focus on issues relating to patent litigation and to facilitate oversight of PLRB performance.

If the PLRB were to be a separate administrative body, it might be modeled on adjudicative agencies such as the ITC. Alternatively, it could be established as a private, non-profit corporation with government responsibilities in the manner of the Public Company Accounting Oversight Board (PCAOB).²¹⁰ The latter model would permit the PLRB to avoid standard federal pay scales, thereby likely enhancing its ability to recruit experienced professionals best qualified to make preliminary determinations in patent suits.²¹¹ In either case, members of the PLRB could be appointed by the President for a statutorily set term of years, subject to removal by the President only for good cause.²¹²

C. COMPLEMENT OR SUBSTITUTE FOR OTHER ADJUSTMENTS

One potential objection to this article's proposal for an administrative-review process for patent litigation is that the reform is unnecessary because there have already been a number of recent adjustments to how the patent system operates and more reforms might already be in the

²¹⁰ See *Free Enterprise Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 484 (2010) (describing the PCAOB as “modeled on private self-regulatory organizations in the securities industry—such as the New York Stock Exchange”); Mick Bordonaro, *The Public Accounting Oversight Board After Dodd-Frank*, 30 REV. BANKING & FIN. L. 474, 475 (2011) (“As outlined by statute, the PCAOB is a non-profit corporation under the supervision and control of the SEC.”).

²¹¹ See *Free Enter.*, 561 U.S. at 484-85 (noting that the PCAOB's technically private status enables it “to recruit its members and employees from the private sector by paying salaries far above the standard Government pay scale”); Bordonaro, *supra* note 210, at 476 (noting that “the PCAOB does not follow the standard federal pay scale in remunerating its board members”).

²¹² The U.S. Supreme Court struck down a statutory provision making members of the PCAOB removable only for cause by the members of the Securities Exchange Commission (SEC) because the Court understood the members of the SEC themselves to be removable by the President only for cause. *Free Enter.*, 561 U.S. at 487 (accepting the “understanding” “that the Commissioners cannot themselves be removed by the President except under the *Humphrey's Executor* standard”). The Court believed that the resulting two layers of “tenure protection” between PCAOB members and the President unconstitutionally undermined Presidential authority. *Id.* at 495-98.

works.²¹³ In short, one can anticipate an argument that, in light of other reforms, patent litigation administrative review is unnecessary. To respond to such an argument, this section discusses recently implemented or proposed reforms and the work that they leave for the proposed administrative review.

In 2011, Congress made substantial adjustments to the patent system's mechanisms for dispute resolution. In early 2011, Congress enacted a statute launching the Patent Pilot Program under which, in certain districts, judicial expertise in handling patent cases can be cultivated by preferentially assigning such cases to a select subset of district judges.²¹⁴ Later that same year, Congress passed the America Invents Act (AIA). The AIA limited joinder in patent suits, apparently in response to the litigation practices of PAEs that, by alleging infringement against several unrelated defendants in a single case, could reduce their enforcement costs while potentially complicating litigation for accused infringers and making the PAE's choice of forum less vulnerable to challenge.²¹⁵ As noted above, the AIA also expanded opportunities for post-issuance review of patent validity issues at the USPTO.²¹⁶

The courts have also been active in making adjustments, whether to their understanding of substantive patent law or to their procedures. The Supreme Court and Federal Circuit have issued decisions that, *inter alia*, have (1) tightened—or re-emphasized the demands of—the patentability requirements of subject-matter eligibility,²¹⁷ nonobviousness,²¹⁸ claim

²¹³ Cf. F. Scott Kieff & Henry E. Smith, *How Not to Invent a Patent Crisis*, in *REACTING TO THE SPENDING SPREE: POLICY CHANGES WE CAN AFFORD* 55 (Terry L. Anderson & Richard Sousa eds., 2009) (“[I]n light of the rapid, and we would argue excessive, changes that have already occurred in the courts, what patent law needs is a tweaking of existing safety valves and processes—not opening the floodgates to more discretion and uncertainty.”).

²¹⁴ See *Pilot Program in Certain District Courts*, Pub. L. 111-349, 124 Stat. 3674, 3674 (2011) (describing the act as aiming “to encourage enhancement of expertise in patent cases among district judges”); Anderson, *supra* note 132, at 691 (describing the Patent Pilot Program); La Belle, *supra* note 230, at 117 (observing that “fourteen district courts were chosen to participate in the program”).

²¹⁵ See Taylor, *supra* note 27, at 672-78 (discussing how joining multiple defendants can reduce a patentee's enforcement costs, increase those of accused infringers, and decrease the probability of transfer); see Klerman & Reilly, *supra* note 16, at 16 (discussing how “[t]he Eastern District of Texas's case management of multi-defendant and consolidated cases ... benefits patentees” by, for example, “imposing the same page and time limits for the multiple defendants in the aggregate as for the single plaintiff”).

²¹⁶ See *supra* text accompanying notes __.

²¹⁷ See John M. Golden, *Flook Says One Thing, Diehr Says Another: A Need for Housecleaning in the Law of Patentable Subject Matter*, 82 GEO. WASH. L. REV. 1765, 1768-74 (2014) (discussing recent Supreme Court decisions on subject-matter eligibility).

²¹⁸ See Jason Rantanen, *The Federal Circuit's New Obviousness Jurisprudence: An Empirical Study*, 16 STAN. TECH. L. REV. 709, 764 (2013) (concluding that appellate case

definiteness,²¹⁹ and adequate disclosure;²²⁰ (2) emphasized district courts' discretion to deny injunctive relief;²²¹ (3) tightened or re-emphasized requirements for proving (a) patent-infringement damages,²²² (b) willful infringement in justification of an award of enhanced damages,²²³ and, on the other side of a patent-infringement suit, (c) inequitable conduct before the USPTO;²²⁴ (4) increased opportunities for attorney fee shifting;²²⁵ (5) broadened application of a statutory rule of construction to effectively require narrower interpretations of many existing patent claims;²²⁶

law on nonobviousness has effectively tightened the nonobviousness requirement in the wake of a 2007 Supreme Court decision).

²¹⁹ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2130 (2014) (stating that, contrary to the implication of some language in Federal Circuit case law, “[t]o tolerate imprecision just short of that rendering a claim ‘insolubly ambiguous’ would diminish the definiteness requirement’s public-notice function and foster the innovation-discouraging ‘zone of uncertainty’ ... against which this Court has warned”).

²²⁰ *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1340 (2010) (en banc) (“We now reaffirm that § 112, first paragraph, contains a written description requirement separate from enablement”).

²²¹ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 394 (“We hold only that the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity”).

²²² *See, e.g., LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 78 (Fed. Cir. 2012) (holding that “the district court abused its discretion by admitting [a] settlement agreement into evidence” and “erred in allowing the jury to hear [an expert’s] testimony concerning a 6% royalty rate”); *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011) (“Evidence relying on [a] 25 percent rule of thumb [estimating a reasonable royalty to equal 25% of the infringer’s expected profits] is ... inadmissible ... because it fails to tie a reasonably royalty base to the facts of the case at issue.”); Douglas G. Smith, *The Increasing Use of Challenges to Expert Evidence Under Daubert and Rule 702 in Patent Litigation*, 22 J. INTELL. PROP. L. 345, 350-73 (2015) (discussing developments in the case law on admissibility of expert testimony in patent cases).

²²³ *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc) (stating that a prior standard for willfulness was “more akin to [one of] negligence” and that “proof of willful infringement permitting enhanced damages requires at least a showing of objective recklessness”).

²²⁴ John M. Golden, *Patent Law’s Falstaff: Inequitable Conduct, the Federal Circuit, and Therasense*, 7 WASH. J.L. TECH. & ARTS 353, 371-72 (2012) (discussing how *Therasense* “g[a]ve the law a significant, non-fact-specific shove toward a leaner doctrine of inequitable conduct”).

²²⁵ *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1755 (2014) (holding that a Federal Circuit framework for when attorney fees may be awarded was “unduly rigid” and “impermissibly encumber[ed] the statutory grant of discretion to district courts”).

²²⁶ *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, (Fed. Cir. 2015) (en banc in relevant part) (overruling precedent “characterizing as ‘strong’ the presumption that a [patent claim] limitation lacking the word ‘means’ is not subject to § 112, para. 6” and asserting a “strict

(6) overruled precedent erecting hurdles to bringing or triumphing in declaratory judgment actions challenging the scope or validity of patent rights;²²⁷ and (7) repeatedly used writs of mandamus to order transfer of patent cases to new districts, particularly in cases in which the original district was the Eastern District of Texas.²²⁸ Trial courts have taken additional measures. Starting with the Northern District of California in 2000,²²⁹ various district courts and judges have adopted local rules or standing orders specifically directed toward managing patent litigation,²³⁰ commonly with an eye toward achieving greater efficiency.²³¹

Despite exclusive federal jurisdiction over patent-infringement lawsuits, states have also taken measures to regulate processes of patent assertion. Spurred by the actions of patent assertion entities that have carpet-bombed industry sectors with demand letters asserting patent infringement, a majority of states have now passed laws specifically targeting patent demand letters, commonly criminalizing patent-infringement allegations made in bad faith and requiring alleged violators to post a bond for potential penalties.²³² Even in states without such laws, alleged infringers have begun looking to

requirement” for application of that paragraph that there be “a showing that the limitation essentially is devoid of anything that can be construed as structure”).

²²⁷ *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 846 (2014) (reversing a Federal Circuit holding that a licensee bears the burden of proving non-infringement in a declaratory judgment action); *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, (2007) (holding that a patent licensee “was not required, insofar as Article III [of the U.S. Constitution] is concerned, to break or terminate its 1997 license agreement” before challenging the patent in a declaratory judgment action).

²²⁸ Paul R. Gugliuzza, *The New Federal Circuit Mandamus*, 45 *IND. L. REV.* 343, 346 (2012) (noting that, despite never before having “granted a mandamus petition to overturn a [district court] transfer decision,” “the Federal Circuit ha[d], on ten occasions since December 2008, granted mandamus to order the U.S. District Court for the Eastern District of Texas to transfer a patent case”).

²²⁹ Pelletier, *supra* note 103, at 478 (“[T]he Northern District of California is the acknowledged model and pioneer of local patent rules, having adopted its first version in 2000.”).

²³⁰ Megan M. La Belle, *The Local Rules of Patent Procedure*, 47 *ARIZ. ST. L.J.* 63, 63 (2015) (“Today, thirty district courts in twenty different states have comprehensive local patent rules, and many more individual judges have adopted ‘local-local’ rules or standing orders that apply to patent cases in their courts.”).

²³¹ MENELL ET AL., *supra* note 97, at 2-8 (“In an effort to provide fair and efficient management of patent cases, some districts have adopted Patent Local Rules”).

²³² Ryan Davis, *Patent Troll Targets Getting Boost from State Laws*, *LAW360*, Nov. 24, 2015 (observing that “[d]ozens of states have recently passed laws making it a crime under state law to allege patent infringement in bad faith” and that 15 states “include a bond provision in their abusive patent litigation laws”).

state consumer protection laws as a potential basis for counterclaims against patentees.²³³

But these adjustments have proven inadequate to stem either the flood of patent-infringement suits into the district courts or continuing perceptions that patent assertion has become a drag on innovation. Part of this failure reflects counterbalancing adjustments by patent holding plaintiffs. For example, patent holders have proven adept at partly circumventing the force of the new joinder limitations by “increasing the number of filings against individual defendants who would have previously been named in a single complaint,” by “employing multidistrict litigation (MDL) procedures to bind cases for pre-trial activities,” and by incorporating in Delaware to pursue defendants in a forum where consolidation of cases is likely because of the forum’s “relatively small” size.²³⁴

Nonetheless, in early 2015, there was some hope that a combination of the USPTO’s new post-issuance proceedings and adjustments to approaches to subject-matter eligibility and fee shifting had stanching the torrent of new patent suits. From a record number of 6,114 new suits filed in 2013, the number of new suits dropped to 5,070 in 2014.²³⁵ But in 2015, the number of new suits bounced back to 5,829,²³⁶ and this number of new suits in district courts was supplemented by an increasingly prominent, rising tide of new filings in USPTO post-issuance proceedings.²³⁷ As a result, despite all the reforms from 2006 through 2014, there is cause for concern that the burdens of patent litigation have only worsened.

More recent changes to the Federal Rules of Civil Procedure offer further hope for relief but little assurance. In 2015, the Supreme Court approved new Federal Rules of Civil Procedure that seek to “contro[l] the expense and time demands of litigation” and to promote “prompt and efficient resolutions of disputes.”²³⁸ Steps to these ends notably include (1) shortening the default deadline for a trial judge’s mandatory scheduling order from “the earlier of 120 days after any defendant has been served with

²³³ *Id.* (noting use of “state consumer protection statutes” by “[s]ome accused infringers”).

²³⁴ Smith & Transier, *supra* note 11, at 231-32.

²³⁵ Lex Machina, Cases Filed by Year, <https://law.lexmachina.com> (last visited Jan. 3, 2016) (listing annual numbers of patent cases filed in district courts from 2009 through 2015).

²³⁶ *Id.* (same).

²³⁷ See U.S. Patent & Trademark Office, Patent Trial and Appeal Board Statistics 3 (Nov. 30, 2015) (reporting that, from fiscal year 2014 to fiscal year 2015, the number of petitions for inter partes review, post-grant review, and covered business method review increased from 1,489 to 1,897), available at <http://www.uspto.gov/sites/default/files/documents/2015-11-30%20PTAB.pdf>.

²³⁸ See Chief Justice of the Supreme Court of the United States, 2015 Year-End Report on the Federal Judiciary 6 (discussing the significance of amendments to the Federal Rules of Civil Procedure).

the complaint or 90 days after any defendant has appeared” to the earlier of 90 days after first service or 60 days after first appearance;²³⁹ (2) limiting authorized discovery to “nonprivileged matter” not only “relevant to any party’s claim or defense” but also “proportional to the needs of the case”;²⁴⁰ and (3) tightening patent-suit pleading requirements by eliminating the ability of patentees to rely on Form 18, a model complaint for patent-infringement suits.²⁴¹

But these changes to the Federal Rules seem insufficiently powerful or systematic in likely effect to drain the patent litigation morass. The change in the default deadline for mandatory scheduling orders does not seem very significant for the bulk of patent suits because of the proliferation of local rules and standing orders that already set default schedules.²⁴² Given prior limitations on discovery, the significance of the new proportionality requirement for discovery will only become clear with time²⁴³ and may leave much up to individual trial judges’ discretion.²⁴⁴ The abrogation of patentees’ ability to rely on Form 18 does have at least one clearly identifiable effect: unshielded from any further ability to rely on Form 18, patent-infringement plaintiffs have become more effectively subject to a general “plausibility” pleading requirement articulated in recent Supreme Court opinions.²⁴⁵ But application of this pleading requirement might be left substantially up to the

²³⁹ Administrative Office of the U.S. Courts, Redline of Civil Rules Amendments (eff. Dec. 1, 2015) 5-6 [hereinafter “Rules Amendments Redline”], *available at* <http://www.uscourts.gov/rules-policies/current-rules-practice-procedure/federal-rules-civil-procedure>.

²⁴⁰ *Id.* at 10.

²⁴¹ *Id.* at 49 (showing abrogation of Rule 84); *see also* Matthew Bultman, *Stricter Patent Pleading Requirements Take Effect Dec. 1*, LAW360 (Nov. 30, 2015) (“The changes, a rewrite of the Federal Rules of Civil Procedure, ... eliminate a rule that allowed filers of patent suits to rely on a bare-bones model complaint.”).

²⁴² *See supra* text accompanying note 231.

²⁴³ *Cf.* Moore, *supra* note 28, at 1114-16 (contesting the position of the Advisory Committee on Rules of Civil Procedure that addition of the proportionality requirement has little significance).

²⁴⁴ *Cf.* *Alexsam, Inc. v. IDT Corp.*, 715 F.3d 1336, 1342 (Fed. Cir. 2013) (“A district court’s decision to sanction a litigation [for a discovery violation] is reviewed for abuse of discretion.”); *Abbott Point of Care Inc. v. Epocal, Inc.*, 666 F.3d 1299, 1302 (Fed. Cir. 2012) (“[T]his court reviews the district court’s denial of discovery, an issue not unique to patent law, for abuse of discretion, applying the law of the regional circuit” (internal quotation marks omitted)).

²⁴⁵ Gugliuzza, *supra* note 170, at 283-84 (noting that “[p]atent litigation ha[d] been partially immunized from the pleading revolution wrought by the Supreme Court’s decisions” because of complainants ability to rely on Form 18).

discretion of individual district judges,²⁴⁶ and, although such a plausibility requirement might help screen the very weakest of patent-infringement allegations, this threshold does not seem to address concerns about patent-infringement suits that, though facially plausible on the basis of facts alleged in a complaint, are unlikely to survive serious contestation.²⁴⁷

Additional adjustments might be forthcoming from Congress. Over the past few years, members of Congress have introduced several bills focused on patent litigation reform²⁴⁸ and proposing changes to aspects of litigation such as pleading requirements, rules for attorney-fee shifting and case venue, and the scope of allowable discovery.²⁴⁹ Some bills have sought to have address the pre-litigation demand letters²⁵⁰ that have attracted the attention of state legislators.²⁵¹ In 2015, the main congressional bills focused on litigation reform, a House bill and a Senate bill, were each voted on favorably by their chambers' respective judiciary committee.²⁵² But efforts to enact the bills ultimately stalled.²⁵³

Regardless of whether these bills move forward in this or a later session of Congress, they do not obviate the desirability of this article's

²⁴⁶ See Kaplow, *supra* note 87, at 1285-86 (suggesting that the plausibility pleading standard might effectively leave much up to the idiosyncratic views of individual district judges).

²⁴⁷ Cf. Robert G. Bone, Twombly, *Pleading Rules, and the Regulation of Court Access*, 94 IOWA L. REV. 873, 878 (2009) (contending that "the Court's plausibility standard marks only a modest departure from notice pleading").

²⁴⁸ See Gugliuzza, *supra* note 170, at 283 ("Of the fourteen patent reform bills introduced in the 113th Congress, five focused specifically on patent litigation."); Patent Progress, Patent Progress's Guide to Federal Patent Reform Legislation, http://www.patentprogress.org/patent-progress-legislation-guides/patent-progresss-guide-patent-reform-legislation/#strong_act [hereinafter "Patent Progress Guide"] (last visited Jan. 2, 2016) (describing bills entitled the "Protecting American Talent and Entrepreneurship Act (PATENT Act)" and the "Innovation Act").

²⁴⁹ See, e.g., Innovation Act, H.R. 9, 114th Cong. (2015); Protecting American Talent and Entrepreneurship Act ("PATENT Act"), S. 1137, 114th Cong. (2015); see also Gugliuzza, *supra* note 170, at 283 (noting that bills before the 113th Congress "addressed four main topics relevant to patent litigation: pleading requirements, discovery, recovery of attorneys' fees, and stays of lawsuits against end users").

²⁵⁰ See *id.* (describing House bills entitled the "Targeting Rogue and Opaque Letters Act of 2015" and the "Demand Letter Transparency Act of 2015"); Gugliuzza, *supra* note 170, at 283 ("[S]everal other bills [in the 113th Congress] proposed to fight patent trolls who send demand letters to thousands of end users by making it illegal to send 'in bad faith' a letter threat[en]ing patent infringement litigation.").

²⁵¹ See *supra* text accompanying notes __.

²⁵² See *supra* note 4 and accompanying text.

²⁵³ Tony Dutra, *Sources Say Patent Bills Not Right-Sized But Goodlatte, Pro-Bill Lobbyists Keep Fighting*, 90 BNA'S PATENT, TRADEMARK & COPYRIGHT J. 3624, 3624 (Oct. 30, 2015) ("Legislation that would change how courts handle patent infringement cases is unlikely to move forward in its current form, sources familiar with the effort told Bloomberg BNA.").

proposed system of administrative review. They do not provide for automatic early-stage review of the substance of patent litigation and thus cannot offer the informational advantages peculiar to such review—informational advantages both for individual parties and also for society in its attempts to understand the patent litigation landscape. Thus, to the extent current congressionally proposed reforms are embraced, this article’s framework for patent litigation administrative review would still have a place as a significant complement. Moreover, to the extent reforms proposed in Congress are viewed as overly draconian or otherwise unwise, this article’s proposal of administrative review might act as a welcome alternative.

CONCLUSION

Preliminary administrative review of patent suits can improve the patent system’s short-term economic performance and, by enabling the development of a better understanding of the current patent litigation landscape, can provide information that fosters the design of a better patent system for the future. Patent litigation in the United States currently bears many hallmarks of a process ripe for, and indeed marked by, opportunistic behavior. High litigation costs, long delays in obtaining judgments in even pretrial stages of district court litigation, and evidence of forum shopping are among the most dramatic of such signals. Standard economic theory and common sense suggest that a process of preliminary administrative review, particularly one designed to facilitate early judgment on what at least one party believes should be a relatively easy issue, can help mitigate problems behind the current patent litigation morass. Part III’s economic reasoning modeling suggest further reason to believe that preliminary administrative review will improve patent system performance.

On the other hand, procedural mechanisms such as preliminary administrative review can sometimes generate unexpected effects or be unforeseeably susceptible to variants of the opportunistic gaming that the procedural mechanisms seek to contain. Consequently, the proposed framework for preliminary administrative review should probably be adopted on a trial basis only. A sunset provision would effectively require policymakers to reevaluate the framework and any potential successors within a few years. The commitment to policy innovation, information gathering, and recurrent evaluation that such a pilot would represent might be crucial to ensuring that legal systems like the U.S. patent system serve their intended social purposes faithfully and competently over time.