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Patent assertion entities (PAE), sometimes colloquially referred to as “patent trolls,” have recently found themselves to be quite the targets for policy-makers. From state attorneys general to the Federal Trade Commission (FTC) to legislators on both sides of the aisle, patent reforms aimed at deterring abusive PAE activity have been a topic heavily discussed and, in some cases, even enacted. Vermont in particular presents an interesting backdrop for PAE policy, as the state has not only passed legislation specifically targeting bad-faith patent assertions, but the state Attorney General also filed the first consumer protection complaint against a PAE for its business practices. These movements at both the federal and state levels foreshadow further constraints for PAE activity in the near future, initiating the search for the best enforcement mechanism against PAE activity. This Note addresses the explanations behind the rise of PAE activity, discusses recent empiricism on the economic effects of that activity, and highlights the demonstrated inability of other political actors to curb PAE abuse thus far. The Note ultimately advocates that the FTC should become the main monitor of PAE activity and use its section 5 powers to take action against those PAEs that harm consumers and provide no countervailing benefits to innovation.

I. INTRODUCTION

On May 22, 2013, Vermont Attorney General William Sorrell filed suit against MPHJ Technology Investments (MPHJ) in the Civil Division of the Superior Court of Vermont under the Ver-

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mont Consumer Protection Act.  

To any employee of MPHJ, the irony of the suit had to be readily apparent. For the past nine months it had been MPHJ who had been threatening various Vermont businesses with legal action. The tables had been turned.

MPHJ allegedly first began sending demand letters to businesses across Vermont in September 2012 under the names of forty different wholly-owned shell subsidiary companies. In its letters, MPHJ’s shell subsidiaries generally asserted that the business receiving a letter had been identified as using technology that infringed on the sender’s patent holdings. For example, in a letter identified in the original complaint as Exhibit A, MPHJ (operating through a subsidiary named HarNol, LLC) not only asserted patent infringement but further claimed that it had determined that “a fair price for a license negotiated in good faith and without the need for court action is a payment of $1,000 per employee.”

This pattern of behavior is MPHJ’s entire business model. MPHJ does not produce any technology; it acts in Vermont solely as a patent assertion entity (PAE). MPHJ operates by leverag-

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2. Id. at note 1, at 3.

3. Id. at 1–3. These subsidiary companies all claimed to be located at 40 E. Main Street, #19, Newark, DE 19711 and had names such as FanPar, LLC, DesNot, LLC and JusLem, LLC. Id. at 1–2.

4. Id. at 3. See also id. at Ex. A (a copy of a demand letter sent). The letters emphasized that there were potentially large legal implications for continuing to infringe. Id.

5. Id. The letter also emphasized that if the business did not believe itself to be infringing, it would have to prove this by providing voluminous information about their email and scanner technology. Id. MPHJ emphasized that their patent did not bear on any of the producer technology (i.e. that of the producer of scanners or e-mail systems) but only when they were combined. Proof of non-infringement was of course subject to MPHJ’s approval. Id.


ing the mere threat of patent infringement litigation against businesses into profitable licensing agreements. For instance, despite retaining a Texas law firm to send demand letters to businesses on its behalf, MPHJ never filed a single lawsuit against any of the businesses it threatened in Vermont before being sued by the state Attorney General. The lawsuit filed by Attorney General Sorrell is fairly described as the first of its kind. Never before has a state Attorney General filed suit against a PAE under a state consumer protection act meant to target PAEs. The complaint alleged a pattern of both unfair acts and misrepresentations.

Vermont’s decision to target unsavory patent assertions with this suit is part of a larger state-level movement to take action against PAEs. To date, states such as Vermont, Minnesota, New York, and Nebraska have taken legal action, while still others are considering similar moves. Federal action has also not been

patent_report.pdf (describing how PAEs do not develop any technology or products related to the patents they own).


10. Joe Mullin, Patent Troll that Wants $1,000 Per Worker Gets Sued by Vermont A-G, ARSTECHNICA (May 22, 2013, 2:40 pm), http://arstechnica.com/tech-policy/2013/05/patent-troll-that-wants-1000-per-worker-gets-sued-by-vermont-a-g/ (“They’re now the subject of a government lawsuit targeting patent trolling—the first ever such case.”).

11. Id.; see also Balto, supra note 8 (“Vermont’s attorney general sued patent troll MPHJ Technology Investments LLC on the same day the anti-troll legislation was to be signed into law.”).

12. Complaint, supra note 1, at 8–10. MPHJ’s allegedly unfair acts included: threatening litigation without the intent to ever file suit, targeting small businesses unable to effectively fight patent litigation, sending out its demand letters regardless of its knowledge regarding individual business patent infringement, making burdensome demands on businesses who would claim to not be infringing, and using shell corporations to hide the true owners of patents, avoid liability, and encourage quick settlements. The complaint further alleged that MPHJ had acted deceptively in leading the businesses to believe that they would be the targets of litigation if they did not respond favorably to MPHJ’s licensing demands, that MPHJ had a reasonable basis for believing that they were infringing on their patents, that many businesses had responded favorably to MPHJ’s licensing program, and that a fair price for a license was between $900 and $1200. Id.

On September 27, 2013, the Federal Trade Commission (FTC) announced that it would pursue a study of PAEs, primarily by gathering information from twenty-five PAEs to better understand their effect on innovation and competition. This study proposal came three months after President Barack Obama issued seven legislative recommendations and five executive orders targeting PAEs in June 2013. Several bills have also been proposed on the topic. Altogether, these concurrent state and federal movements have made for an uncertain future for PAEs.

This Note addresses the difficulties posed by PAEs, both in terms of defining their actual economic effects and in learning from past attempts to constrain their behavior. PAEs pose a challenging question for legislators and judges given that they operate within the patent system, a property regime that has thrived in the United States since 1790 and is fashioned to incentivize innovation. In this context, lawmakers have struggled to create effective solutions that disincentivize PAE activity without impeding the basic principles underlying intellectual property rights. States have begun to take action due to the failures of both groups to satisfactorily address the costs of PAE activity.


16. See infra Part III.B.


18. See Kenneth W. Dam, The Economic Underpinnings of Patent Law, 23 J. LEGAL STUD. 247, 247 (1994); see generally U.S. CONST. art. I, § 8, cl. 8 (“To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”).


20. At the same time though, states have been very supportive of the FTC’s actions in investigating PAEs and support further federal action on the topic. See Press Release, Nat’l Ass’n of Atty’s Gen., AGs Support Federal Information-Gathering Project on “Patent Trolls” (Dec. 17, 2013), available at http://www.naag.org/ags-support-federal-information-gathering-project-on-patent-trolls1.php.
This Note argues, however, that state action is not the best avenue for progress in combating the negative effects of PAEs. Not only does state action face practical legal challenges, but any success in differentiating state law in this area may unnecessarily disadvantage those businesses and consumers living in states where state action is not promptly taken. Instead, this Note advocates that the best way to address the problems posed by PAEs is a new approach centered on the Federal Trade Commission’s section 5 power to bring suit against any party committing “unfair or deceptive acts or practices in or affecting commerce.” Just as Vermont utilized its consumer protection statute to bring suit against MPHJ, the FTC should wield its own section 5 powers against those PAEs harmful to competition and consumers. FTC leadership in this area would ensure national uniformity in cracking down on the worst of PAE abuses while maintaining a cautious position on general PAE activity.

Part II of this Note examines the factors that have facilitated recent growth in PAE activity as well as the empirical and academic commentary focused on PAEs. Part III details previous attempts by various political actors to curb PAE vitality and considers the possibility of future action. Part IV analyzes the limits political actors face in targeting PAE behavior and advocates for the FTC to take charge in constraining PAE activity. Recent developments suggest that the FTC is indeed equipped to tackle the problems PAEs pose. The Note concludes with a call for cautious action: by allowing the FTC to take the lead on PAE enforcement, “bottom-feeder” PAEs can effectively be discouraged from exploiting the patent system without requiring drastic and potentially overreaching legislative action.

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21. See infra Part IV.A.
22. See infra Part IV.B.
23. See 15 U.S.C. § 45 (2006) (“Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.”).
24. See Mullin, supra note 10 (“Vermont Attorney General William Sorrell has filed suit in his home state, saying that MPHJ is violating Vermont consumer-protection laws.”); see generally FED. TRADE COMM’N, ABOUT THE FTC, http://www.ftc.gov/about-ftc (last visited February 4, 2013) (listing the first two goals of the FTC as protecting consumers and maintaining competition).
II. PATENT ASSERTION ENTITIES: DEFINITION, OPERATIONS, AND EMPIRICAL EVIDENCE

Patent assertion entities have gone by many different names over the course of their existence, and the nomenclature itself represents the latest attempt at clarifying the debate over their role in the patent system. This section examines what a patent assertion entity is, the theories of their success, and the divided commentary on their economic effects.

A. WHAT IS A PATENT ASSERTION ENTITY AND WHAT MIGHT IT LOOK LIKE?

The first patent in the United States was issued in 1790, at a time when a review by the Attorney General, Secretary of War, and Secretary of State were necessary for a patent to issue. Since then, the patent system has grown monumentally: in 2013 the U.S. Patent and Trademark Office (USPTO) granted 302,948 patents. The basic principle underlying the patent system is that by granting inventors a temporary monopoly over their invention, inventors can reap immediate economic rewards, which will in turn incentivize future innovation. However, the rise of PAEs, or patent assertion entities, has led to concern that patent rights can be abused and actually hinder competition and innovation.

The Federal Trade Commission has defined PAEs as firms that “obtain nearly all of their patents through acquisition or purchase in order to assert them against manufacturers.” These firms operate with the underlying purpose of leveraging their patent holdings into profitable licensing agreements or, success-

28. Dam, supra note 18, at 247.
29. FED. TRADE COMM’N, supra note 25, at 60.
ful patent litigation. An alternative economic conception of PAEs would label them as firms that perform arbitrage by buying patents from various holders who are unable to assert them and then either license or assert them against businesses to make a profit. Both conceptions capture the idea that PAEs attempt to make profits merely by holding and utilizing patents originally granted to others, rather than by producing technology themselves. The term for such a firm, a “patent assertion entity,” has risen as an alternative to “patent troll”—a pejorative moniker that itself struggled for clear definition—and non-practicing entity (NPE), a descriptive yet over-inclusive phrase that mistakenly sweeps up universities and start-ups.

No matter the name, PAEs display a wide-range of business models. For example, Acacia Research Corporation is a publicly-traded company and a self-described “intermediary” in the patent

30. Id. at 62–66 (describing the business models of patent enforcement and licensing companies, litigation finance firms, and patent aggregators); see Rob Kelley, BlackBerry Maker, NTP ink $612 Million Settlement, CNN MONEY (March 3, 2006), http://money.cnn.com/2006/03/03/technology/ninterp Empresa Sumpenberg Patent, Must Pay $2.3 Million, ARSTEHNSICA (Nov. 26, 2013), http://arstechnica.com/tech-policy/2013/11/jury-newegg-infringes-sumpenberg-patentmust-pay-2-3-million/. This conception of the PAE business model also highlights its opportunistic nature, as many PAEs target industry participants after they have already made irreversible investments into products or production techniques before asserting their claims. See, e.g., Andrei Hagiu & David B. Yoffie, The New Patent Intermediaries: Platforms, Defensive Aggregators, and Super-Aggregators, 27 J. ECON. PERSP. 45, 52–53 (2013) (describing the model of patent aggregation entities, despite the authors’ continued use of “patent troll”); Mark A. Lemley, Are Universities Patent Trolls?, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611, 613 (2008) (‘Many of these entities also engage in tactics that allow them to lay low and then take a mature industry by surprise once participants in the industry have made irreversible investments.”).


32. This does not necessarily imply that PAE activity has no social value. Viewing PAEs as performing socially positive arbitrage would describe PAEs as middlemen that can perform a market making function and transfer patents from those poorly positioned to exploit licensing them to enterprises actually utilizing the patents. However, this view has been disputed, as not all arbitrage is necessarily socially desirable. Id.

33. FED. TRADE COMM’N, supra note 25.


35. FED. TRADE COMM’N, supra note 25. The problem with confusing PAEs with NPEs is that PAEs do not focus on developing and transferring technology, whereas some NPEs like universities and start-ups do. Id. at 8 n.5.
market. It has completed more than 1,000 licensing agreements and claims to have generated gross revenue of over $1,000,000,000.36 MPHJ Technology, as described above, represents a much less transparent model; it relies on indiscriminate patent assertions (including against small businesses and nonprofits) through shell subsidiary companies in an attempt to complete quick licensing agreements.37 “Lottery-ticket” PAEs attempt to litigate their patent holdings against large companies in court in search of a substantial award.38 The “hybrid” PAE model features a PAE controlled by, or financially responsible to, a parent company.39 Although somewhat outside the technical definition of a PAE, “hybrid” PAEs still have the potential to act abusively where their targets are unaware of the connection between the PAE and its controlling company.40

37. Complaint, supra note 1, at 1.
40. This model is troubling insofar as it may allow an operating company to target their competitors, but without the target company being aware of any link between the PAE and the operating company. This prevents the target company from bringing a patent infringement countersuit and is a parallel to how some PAEs such as MPHJ use shell companies to disguise the real party in interest. A good example of this is the story of Round Rock Ventures. Round Rock began operations upon purchasing 20% of the patent holdings of Micron, which it then proceeded to assert against Micron’s competitors. It has since come to light, however, that the patent purchases were likely part of a complex transaction between Micron, Round Rock, and Intellectual Ventures (itself a widely known patent aggregator and licensor founded by Nathan Myhrvold, the former Chief Technology Officer of Microsoft). Ultimately, it appears that Round Rock operated under some control from Micron. See Patrick Anderson, Micron Retains Interest in Round Rock Patent Monetization Process, GAMETIME IP (May 9, 2012), http://gametimeip.com/2012/05/09/micron-retains-interest-in-round-rock-patent-monetization-proceeds/.
B. SUCCESSFUL MONETIZATION EXPLANATIONS

These business models, while varying in strategy, have found success in monetizing patents. After all, if PAEs were not profitable, their business models would cease to exist.\footnote{Shapiro, Presentation, supra note 39, at 28 (arguing that PAEs must be effective monetizers based off their enduring business model). Additionally, the growth of PAE use has been consistently confirmed. A study using random samples of patent lawsuits from 2007 to 2011 estimated that the percentage of suits brought by entities most approximating patent monetizers (a term similar in definition to PAE) rose from 22% in 2007 to 40% in 2011. Sara Jeruss, Robin Feldman & Joshua Walker, The America Invents Act 500: Effects of Patent Monetization on US Litigation, 11 DUKE L. & TECH. REV. 357, 377 (2012). See also Shapiro, Presentation, supra note 39, at 28–29.} It is therefore important to consider the factors that many have theorized as leading to the PAEs’ success.

First, many agree that PAEs likely have a comparative advantage in legally asserting patents relative to operating companies because PAEs have no production arms that generally allow for countersuit by the target of patent assertions.\footnote{See John M. Golden, “Patent Trolls” and Patent Remedies, 85 TEX. L. REV. 2111, 2133 (2007); Lemley & Melamed, supra note 38, at 2162. When the patent holder competes in the same market as the alleged infringer (as opposed to operating as a PAE), the infringer can effectively deter a patent infringement suit since it will likely have the ability to bring a counter patent infringement suit. This has been referred to as patent détente. Golden, supra note 42, at 2154.} This immediately changes the calculus of going to court for PAEs, since they are unlikely to have to deal with burdensome and costly discovery stemming from a countersuit.\footnote{Golden, supra note 42, at 2133; but cf. Jason Rantanen, Slaying the Troll: Litigation as an Effective Strategy Against Patent Threats, 23 SANTA CLARA COMPUTER & HIGH

Not so for operating companies (especially large companies), where the ease of countersuit ensures that if one company brings a patent infringement suit against another, both will end up incurring significant legal costs.\footnote{Lemley & Melamed, supra note 38, at 2162; see also Golden, supra note 42, at 2128–29 (observing that most legal costs are incurred in discovery and that expected litigation costs are substantial).} These costs do not always prevent patent suits between large companies,\footnote{E.g., Shara Tibken, Samsung Owes Apple $290M More in Damages, Jury Says, CNET.COM (Nov. 21, 2013), http://news.cnet.com/8301-13579_3-57613390-37/samsung-owes-apple-$290m-more-in-damages-jury-says/.} but they do provide a significant deterrent. PAEs are not similarly constrained, which allows them to bring suit relatively cheaply as compared to their targets.\footnote{Golden, supra note 42, at 2133; but cf. Jason Rantanen, Slaying the Troll: Litigation as an Effective Strategy Against Patent Threats, 23 SANTA CLARA COMPUTER & HIGH
These legal costs also act as part of the leverage some PAEs use to bait settlements. A 2011 survey of members of the American Intellectual Property Law Association (AIPLA) estimated that the median cost to litigate a patent claim is $650,000 where less than $1 million is in controversy. If $25 million is at risk, the cost balloons to around $5 million. A different study found that the median direct legal costs for a litigation defense was around $230,000 for a large company and $70,000 for small or medium companies. However, when considering the mean costs, the direct legal costs skewed to nearly $1.52 million and $420,000, respectively. The targets of PAEs must determine whether incurring those costs is more expensive than settling for a licensing agreement or taking an alternative action such as designing a non-infringing substitute product. John M. Golden has explained that a target of a PAE will assess the costs of an alleged patent infringement as: “Expected cost from patent infringement suit = Expected damages award from a patent suit times the probability of losing the patent suit + Expected cost of complying with a permanent injunction times the probability of losing the patent suit + Expected litigation costs.”


[48] Id. at 5.


[50] Id. at 399.

[51] See Golden, supra note 42, at 2126, 2130 (discussing how accused infringers must evaluate the decision between litigating, agreeing to a license, or designing around the infringement); see also Mark A. Lemley & Carl Shapiro, Patent Holdup and Royalty Stacking, 85 TEX. L. REV. 1991, 1995–96 (2007) (describing how patent holders and targets of assertions bargain throughout the process keeping in mind the costs of litigation, licensing, and redesign).

[52] Golden, supra note 42, at 2127. The second factor on the right side of that equation (expected cost of complying with a permanent injunction) is included because Golden was assuming that a patent infringer would almost always be prevented from continuing to produce or use the infringing product if found liable. Id. That has since changed, but the second factor remains relevant since judges still have the discretion to issue post-liability permanent injunctions. Golden himself explains that the expected costs of a permanent injunction would now be more properly multiplied by the chance that the presiding judge would grant a permanent injunction. Id. at 2127 n.58; see also eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006) (raising the standard for judges to issue permanent injunctions in patent infringement suits).
Golden’s equation reveals the difficult decision targets must make when confronted with an allegation of patent infringement. The large legal costs of a suit are just the beginning, as the target must also assess whether it can defeat the patent assertion in court. Even if it feels relatively confident about success, the firm must still consider the potential impact of an adverse decision to understand its risk. When aggregating these potential costs, the total can swell quickly given that the bare legal costs of going to court tend to be large, as the AIPLA survey indicated. Golden highlights that while not all legal costs are necessarily independent of success in court, the majority of costs are incurred at the end of discovery, meaning that the costs are likely to be incurred before many cases can be resolved by summary judgment and may not be recoverable regardless of an eventual victory.

The implication of these cost interactions is that targets of PAEs are likely to realize that defending against any patent infringement suit will be expensive. Even frivolous patent assertions still likely carry with them the considerable legal costs of going through discovery. This leaves a targeted firm in a diffi-

53. A patent assertion could be defeated either by showing that there is no infringement taking place or by showing that the patent being asserted is invalid.
54. Lewis Letter, supra note 47, at 5. Golden himself notes that for relatively weak patent infringement suits brought, the main driver of a target’s decision to settle will be the legal costs of challenging the alleged patent infringement. See Golden, supra note 42, at 2128–29.
55. Clearer suits, for instance, may only go so far as summary judgment rather than through an entire trial.
56. Golden, supra note 42, at 2128 (“[A]ccording to the 2005 economic survey of the American Intellectual Property Law Association (AIPLA), most litigation costs are apparently incurred by the end of discovery, which commonly may be expected to precede motions for summary judgment.”).
58. Discovery costs can commonly be expected to precede motions for summary judgment. Golden, supra note 42, at 2128–29. It should also be noted that patent infringement cases have been exempt from rising pleading standards since the Federal Rules of Civil Procedure have a patent infringement complaint in its appendix. This is because Rule 84 indicates that the forms in the appendix “suffice under these rules and illustrate the simplicity and brevity that these rules contemplate.” Fed. R. Civ. P. 84; Dennis Crouch, Heightened Pleading Requirements: Patent Reform through the Supreme Court and Judicial Conference, PATENTLYO.COM (Feb. 11, 2014), http://patentlyo.com/patent/2014/02/heightened-requirements-conference.html. These legal developments together
cult spot; it must compare these substantial legal costs and the risk of losing the suit to the cost of agreeing to a licensing agreement or to the cost of designing around the infringing technology. This highlights how many PAEs can effectively monetize their patents: they exploit situations where it is cheaper for targeted firms to settle than to pursue litigation or design around the alleged infringement.59

Additionally, as a patent infringement suit by a PAE becomes more likely to succeed, the expected losses from a court verdict can rise substantially, thereby further incentivizing firms to settle patent infringement suits.60 While this is intuitive at a certain level,61 another problem can develop where the threat of a permanent injunction becomes the main driver of the target’s decision of how to react.62 For instance, a firm relying on a product or technology that gets enjoined from its use will have to redesign or reinvent around the infringing aspect on the fly.63 These are essentially switching costs. By adding them to the mix, firms have an incentive to reach a licensing agreement that exceeds what otherwise might be calculated as “damages.”64 This situation has previously been referred to as the problem of “patent holdup,”65 which, if realized, can lead to payment of especially large royalty fees in licensing agreements.66 It is no surprise,

ensure that before the suit can be resolved (regardless of how frivolous a suit is) the alleged patent infringer will be exposed to discovery, a large and draining expense. See Lewis Letter, supra note 47, at 5 (“Patent discovery can account for much of this extreme expense; it involves millions of documents and a large number of witnesses to depose, producing a huge drain on company resources and personnel.”).

59. The costlier the litigation or redesign is expected to be, the more favorable the licensing agreement will be. See Lemley & Shapiro, supra note 51, at 2000 (describing that the royalty rate agreed to will be based off what the practicing firm’s best strategy will be in the event that licensing negotiations break down).

60. Golden, supra note 42, at 2130.

61. A higher rate of success in the suit likely indicates the infringement was more obvious and/or the patent is more valid.

62. See Golden, supra note 42, at 2130 (observing that a stronger patent case can cause damages and injunction concerns to dominate an alleged infringer’s approach to settlement); Lemley & Shapiro, supra note 51, at 2000 (observing that if an accused infringer’s alternative to a license takes into account a redesign due to the risk of a permanent injunction, the patent holder’s position improves).

63. Lemley & Shapiro, supra note 51, at 1996.

64. Id. at 1993.

65. Id.; see also Lemley & Shapiro, Reply, Patent Holdup and Royalty Stacking, 85 TEX. L. REV. 2163, 2164 (2007) [hereinafter Lemley & Shapiro, Reply] (Patent holdup is “a form of market failure that leads to inefficiency, primarily by discouraging what would otherwise be socially desirable investments.”).

66. Lemley & Shapiro, supra note 51, at 2009 (emphasizing that patent holdup is not a theoretical problem and that firms do in fact often settle for more than the patent holder
then, that many businesses would agree to hefty settlements rather than see a core product shut down.

The factors considered thus far help explain how PAEs have actively made the interaction of the legal system and the patent system work for them. However, the patent system itself has also helped precipitate the rise of PAEs. As Andre Hagiu and David B. Yoffie argue, PAEs have grown in part because the patent market is illiquid and inefficient.\footnote{Hagiu & Yoffie, supra note 30, at 46.} Put differently, the market for patents often fails and can be a challenge for buyers and sellers to navigate without an intermediary.\footnote{Id. at 47.} There are several explanations for this market condition: (1) patents are more difficult to value given that they often lack “comparables”—similar or complementary products used to estimate the value of a new product; (2) the patent market has high “search” costs;\footnote{This means that it is difficult for patent owners and buyers to find all prior art and patents that apply to their or others’ products. Id. at 47.} and (3) patent transactions generally happen through some form of litigation, thereby imposing large transaction costs.\footnote{Id. at 46–48.} Hagiu and Yoffie further highlight that the increased use of the United States International Trade Commission (ITC) as the battlefield for patent disputes over imported products has exacerbated patent holdup.\footnote{Id. at 48.} The ITC is much quicker to resolve patent disputes than federal courts (12–15 months versus several years) and is much more likely to issue injunctions.\footnote{Id.; see Colleen V. Chien & Mark A. Lemley, Patent Holdup, the ITC, and the Public Interest, 98 CORNELL L. REV. 1, 19–22 (2012) (observing that the ITC views patents as in the public interest and stating that in only three cases has the ITC found that the public interest in the infringing products has outweighed the need to exclude the goods).} This intensifies problems of patent holdup and further encourages settlements.\footnote{See Chien & Lemley, supra note 72, at 25 (“The ITC cases applying the public interest exception, however, have generally not found much of a public health and welfare interest in information technology products, where the holdup problem is most acute.”); id.
Hagiu and Yoffie also identify two external factors benefitting PAEs.\textsuperscript{74} First, they argue that the rise of the Internet has made it easier for inventors to find intermediate buyers for their patents, allowing PAEs to find streams of patents to buy.\textsuperscript{75} Second, Hagiu and Yoffie assert that the rise of PAEs has tracked the increase in profits and revenues associated with intellectual property-intensive industries.\textsuperscript{76} They point to information and communication technology sectors such as software, semiconductors, and mobile communications as examples of fields where PAE activity has concentrated in response to the likelihood of patents with “fuzzy boundaries” and overlapping ownership.\textsuperscript{77}

Mark Lemley and Douglas Melamed go further, arguing that PAEs are merely opportunistic entities exploiting systematic problems within the patent system.\textsuperscript{78} One particular flaw they dissect is the sheer number of broad patents being issued, particularly in the IT industry.\textsuperscript{79} “Functional claiming” has exacerbated the problem, as patent holdings are in some cases hardly commensurate with the invention that inspired the patent.\textsuperscript{80} This creates an environment in which PAEs can thrive, as there are many patents that can be brought to bear against targeted entities.\textsuperscript{81}

A similar conception of this problem is the idea of “patent thickets.” A patent thicket is defined as “an overlapping set of

\textsuperscript{at 2 (observing that ITC jurisdiction has fallen outside of attempts to fix patent holdup and has caused PAEs to flock to the agency in search of injunctions or the threat of injunctions); Hagiu & Yoffie, supra note 30, at 48.}

\textsuperscript{74.} Hagiu and Yoffie utilize the term “non-practicing entity” in their paper as opposed to PAE, but the underlying ideas apply equally to both terms.

\textsuperscript{75.} Hagiu & Yoffie, supra note 30, at 51. This method of finding undervalued intellectual property has replaced the largely serendipitous method prior to the Internet of intermediaries relying on personal connections with inventors or buying patents in sales of distressed assets. \textit{Id.}

\textsuperscript{76.} \textit{Id.}

\textsuperscript{77.} \textit{Id.}

\textsuperscript{78.} Lemley & Melamed, \textit{supra} note 38, at 2170. Lemley and Melamed utilize the term “patent troll,” but again, that term is interchangeable with PAE, its negative connotation notwithstanding.

\textsuperscript{79.} \textit{Id.} at 2173. This can also create a paradoxical situation where multiple inventors own patents for more or less the same creation despite the goal of the patent system to only reward one inventor. \textit{Id.}

\textsuperscript{80.} \textit{Id.} (“Software patent claims, for example, are often ridiculously overbroad because they are based on claims to the goal being achieved, not the program or approach that achieved that goal—what one of us has called ‘functional claiming.’ Patent claims should be commensurate with the actual invention.”).

\textsuperscript{81.} \textit{Id.} This is again the problem of “royalty stacking.” \textit{See} sources cited \textit{supra} note 66 and accompanying text.
patent rights requiring that those seeking to commercialize new technology obtain licenses from multiple patentees.\textsuperscript{82} Patent thickets are advantageous for PAEs because the overlapping intellectual property rights surrounding one potential product can provide for an especially permissive environment for patent holdup.\textsuperscript{83} This is a direct result of the fragmented ownership of intellectual property in a patent thicket and risks directly harming innovation.\textsuperscript{84} Patent thickets also create substantial risk that even the largest, most savvy firms are going to eventually step on a patent they did not see.\textsuperscript{85} As such “[t]he result will be that some companies avoid the mine field altogether, that is, refrain from introducing some products out of fear of holdup.”\textsuperscript{86}

In describing PAE behavior and how it has become profitable, there are many factors that appear to have converged: (1) PAEs

\textsuperscript{82} Carl Shapiro, \textit{Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting}, \textit{1 Innovation Pol'y. & Econ.} 119, 119 (2000). Patent thickets are closely related to the property concept of “tragedy of the anticommons,” and are particularly problematic in industries where there are only a few products but hundreds or thousands of patents surrounding the industry. \textit{See} Michael A. Heller & Rebecca S. Eisenberg, \textit{Can Patents Deter Innovation? The Anticommons in Biomedical Research}, \textit{280 ScI.} 698, 699 (1998) (“The result has been a spiral of overlapping patent claims in the hands of different owners, reaching ever further upstream in the course of biomedical research.”); Shapiro, \textit{supra} note 82, at 126.

\textsuperscript{83} Patent thickets are so advantageous for PAEs because the fragmented patent rights around one product can allow PAEs to holdup firms for one product despite owning perhaps only a small fraction of the intellectual property surrounding the product in question. Timing concerns as to a patent assertion are still present for this holdup problem. Shapiro, \textit{supra} note 82, at 124–26. It must be noted though that patent thickets can be advantageous for practicing companies too. It is telling that in his original work on patent thickets, Shapiro made no mention of “patent trolls,” “non-practicing entities,” or PAEs. \textit{Id.} This lends further credence to the idea that PAEs are perhaps only opportunistic actors taking advantage of systematic flaws with the patent system. \textit{See} Lemley & Mela med, \textit{supra} note 38, at 2170.

\textsuperscript{84} \textit{See}, e.g., Heller & Eisenberg, \textit{supra} note 82, at 701 (“[The privatization of biomedical research] promises to spur private investment but risks creating a tragedy of the anticommons through a proliferation of fragmented and overlapping intellectual property rights.”). This is again a very similar to concerns over royalty stacking, which focuses on the negative effects of a downstream firm having to “stack” the royalties it owes to two or more patent holders for patents bearing on a single product. Lemley & Shapiro, \textit{supra} note 51, at 2010. Royalty stacking is not merely a question of summing up royalties paid, as Lemley and Shapiro note that the royalty rate negotiated by one patent holder is “affected by the rates the downstream firm pays to other patent holders, so a proper analysis must account for the joint determination of all the royalty rates.” \textit{Id.} at 2011. The ultimate harm of royalty stacking and its related ideas is that ultimately firms will reduce their output, increase their prices and thus create deadweight loss, or, more drastically, may reduce R&D where royalty stacking makes product development too costly. \textit{Id.} at 2015–16.

\textsuperscript{85} Shapiro, \textit{supra} note 82, at 126.

\textsuperscript{86} \textit{Id.}
learning how to successfully leverage a comparative advantage in bringing suit; (2) large legal costs for patent infringement suits; (3) patent holdup; (4) a patent system characterized by problems of market failure; and (5) too many patents issuing too broadly, resulting in patent thickets. The rise of the Internet and information and communication technology industries have further created an environment ripe for PAEs to profit. Given these complex conditions that have allowed PAEs to thrive, it is no surprise that the questions PAEs present in today’s modern economy are heavily debated.

C. DEBATE OVER ACTUAL EFFECTS OF PAES

Carl Shapiro has stated that there are two main narratives surrounding PAEs, both of which stem from their potential effect on innovation.87 One view is that PAEs effectively and efficiently monetize patents for those who may not be able to otherwise use them properly to reap the benefits of holding those patents.88 Under that theory, PAEs are beneficial to small inventors since the PAE, to hold the patent themselves, financially compensates the inventor at a rate ideally based on the expected return of any licensing or assertion of the patent sold.89 This transaction shifts the risk and costs of asserting the patent on to the PAE. The second position argues that PAEs act as a tax on innovation.90 This view argues that PAEs are essentially rent-seekers, extracting money from those enterprises that innovate and contribute to the market by forcing them to pay for patents after the business has already put those technologies into use.91

In trying to reconcile these two views, Shapiro suggests that the impact of PAEs remains unclear because it has yet to be established precisely how well-compensated patentees are relative to the costs of assertions and licenses on the targets of patent assertions.92 If the costs to the target of patent assertions well exceed the benefits that flow back to the original patentee, then the

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87. Shapiro, Presentation, supra note 39, at 23–24.
88. Id.
89. Id.
90. Id.
91. Id.; see also Merges, supra note 31, at 1588–89 (arguing that there is a difference between a reward for true innovation and a legal instrument that permits rent-seeking).
92. Shapiro, Presentation, supra note 39, at 31–33; Shapiro, Patent Assertion Entities, supra note 39, at 12.
money flowing to PAEs is not positive for innovation, as this imbalance would discourage more investment at target companies than it would encourage for supplier patentees. On the other hand, PAE activity could be positive for innovation if the prices paid to original patentees outweigh the total costs of later asserting those patents, as this would indicate that the value of the asserted patents reflect true invention.

Other commentary has not shown as much restraint when evaluating whether PAEs hamper competition and innovation. In a report released in June 2013, the Executive Office of the President concluded that PAEs “significantly retard innovation in the United States and result in economic ‘dead weight loss’ in the form of reduced innovation, income, and jobs for the American economy.” The report highlighted the burdens on the economy imposed by PAEs, such as the direct costs to firms (i.e. legal and licensing costs), private costs of lost opportunities to commercialize technology, and the social costs of reduced innovation. The report further criticized PAEs as unfairly targeting entities that are unable to easily fend off their encroachment, such as small and inventor-driven companies.

Though harshly critical of PAEs, the report found much of its support in recent empirical work on the topic of non-practicing entities (NPE). A 2012 study done by James Bessen and Michael J. Meurer made several damning conclusions about NPEs: (1) that small to medium-sized companies were 90% of the defendants to NPE lawsuits and mounted 59% of the defenses; (2) that only 7% of NPE licensing revenue is paid back to independent...
ent inventors who originally owned the intellectual property;\(^{100}\) and (3) that the aggregate direct costs (both legal and licensing costs) of NPE patent assertions totaled a staggering $29 billion in 2011 (up from $7 billion in 2005).\(^{101}\) Strikingly, this study thoroughly undermines pro-PAE arguments as framed by Carl Shapiro. Not only were costs staggeringly high (and rising), but PAEs were also shown to target predominantly small and medium companies while offering only a fraction of the return to inventors.

Even so, the study has not been without its critics. Jay Kesan and David Schwartz have argued: (1) that the $29-billion estimation is likely to be the upper-bound of cost estimates due to sample bias and the real number is likely to be much lower;\(^{102}\) (2) that Bessen and Meurer used too broad of a definition of non-practicing entities;\(^{103}\) and (3) that the benefits of NPEs were sampled off information from ten publicly traded companies, not a survey of all NPE plaintiffs.\(^{104}\) They further assert that to get a proper empirical view of PAEs, a baseline for comparison must be developed (to ensure that the problems highlighted are specific to NPE litigation), and better data on NPE settlements, length, and attorneys fees paid must be compiled to fully understand the problem.\(^{105}\)

100. Id. at 411. The authors further estimated that this number actually overstated the portion of the licensing revenue that flows back to individual inventors since the study compared current licensing revenue to current patent-acquisition payments and did not factor in that there are likely to be future licensing revenue later gained. Id. Demonstrating the challenge of defining NPEs versus PAEs, the authors do note that if NPE R&D costs are subtracted (such as those that universities or start-ups might engage in), the percentage of total cost to defendants that flows back to all inventors is 20%. Id.

101. Id. at 408. The study utilized a survey of 250 companies and a database of NPE lawsuits to develop statistics on the costs, trends, and overall impact of NPE patent assertions. Id. at 389, 394.


103. Id. at 440.

104. Id. at 442–43.

105. Id. at 448–50. Bessen and Meurer have responded to this criticism. First, they point out that a previous study suggested that the total impact of NPEs is $80 billion a year, thereby indicating that $29 billion for direct costs is a plausible figure. Bessen & Meurer, supra note 49, at 412–14; see James Bessen, Jennifer Ford & Michael J. Meurer, The Private and Social Costs of Patent Trolls, 34 REGULATION 26, 26 (2011) (“During the last four years, the lost wealth has averaged over $80 billion per year.”). That 2011 study used a stock market impact method to estimate the total costs of NPE activity. Bessen and Meurer further argue that their results were similar to other methods of estimating patent litigation costs, as well as data on licensing revenue derived from the records of publicly traded PAEs. Bessen & Meurer, supra note 49, at 415. They also point out that the $29 billion in costs act as a tax on innovation given that most of the costs are chewed
Other empirical work in this area has only compounded the disagreement. A recent study by Colleen Chien attempted to clarify the role of PAEs within the patent system. Her findings include: (1) that PAEs initiated 62% of all patent litigation in 2012 (up from 2011);\(^{106}\) (2) that 55% of all PAE targets make less than $10 million a year;\(^{107}\) and (3) that PAEs brought 35% of complaints at the ITC.\(^{108}\) These findings would seem to suggest that PAEs are still growing and turning to smaller business and non-tech companies as targets. Chien takes care to clarify that some of the rise in patent suits may be artificially inflated by the new joinder rule in the America Invents Act (or AIA),\(^{109}\) which prevents PAEs from naming multiple unrelated defendants in the same patent suit.\(^{110}\)

Sara Jeruss, Robin Feldman and Tom Ewing, in a similar study on patent monetizer trends, concluded that suits by patent monetizers rose from 22% of all patent suits in 2007 to 40% of all patent suits in 2011.\(^{111}\) In a later, expanded version of the study, they found that patent monetizers brought the majority of patent litigation in the United States (58.7% in 2012).\(^{112}\) In all the years they studied, the top ten parties filing the most litigation were all patent monetizers.\(^{113}\) They also found that 52% of all patents asserted had been transferred between owners prior to being asserted and that the average patent was transferred just under twice each (1.85 transfers).\(^{114}\)

up by legal and operating costs, thereby indicating that NPEs hardly return wealth back to the original inventors. \textit{Id.} at 417. It is their belief that so long as the “aggregate value of patent-based incentives is smaller than the aggregate value of negative incentives,” they must be doubtful of any claim that NPEs provide an incentive for innovation. \textit{Id.} at 418.


\(^{107}\) \textit{Id.}

\(^{108}\) \textit{Id.}


\(^{111}\) Jeruss, Feldman & Walker, \textit{supra} note 41, at 357. “Patent monetizers” is their term for non-operating patent entities. \textit{Id.} at 361.


\(^{113}\) \textit{Id.} at 10.

\(^{114}\) \textit{Id.} at 11–12, 98. Jeruss, Feldman, Ewing also focused on the age of patents asserted. Their study showed that the average age for a patent being asserted was six
Not all empirical studies on PAEs conclude that the situation needs immediate attention, however. Christopher Cotropia, Jay Kesan, and David Schwartz found that there was no explosion in PAE litigation between 2010 and 2012. Their data for utility patent lawsuits indicated that the total number of parties in such suits, excluding the patentees, dropped slightly from 9,894 in 2010 to 9,419 in 2012. They explain that the increase in patent lawsuits filed was a response to the new joinder rules of the America Invents Act and conclude that studies pointing to that increase as indicative of the need for government action are chasing a “myth.” A different empirical study performed by Sannu Shrestha found that patents asserted by NPEs were actually more valuable (as judged by four proxies) than other randomly selected litigated patents, thereby challenging notions that NPE patents are weak or valuable only because of opportunism.

However framed, it is clear the academy lacks consensus on the issue of PAEs’ impact on the economy. While many empirical studies (as demonstrated above) tend to show that patent litigation by PAEs has increased over the past decade and that there are substantial costs incurred by their assertions, other studies (and commentaries on studies) see the PAE-hysteria as over-

years, with a quarter of all patents asserted being more than ten years old. Id. at 100-01. However, the difference in age between patents asserted by operating companies and those asserted by monetizers was less than a year, thereby somewhat attacking any notion that PAEs assert older patents. Id. at 102. Brian Love had previously reached a different conclusion on that question. See Brian J. Love, An Empirical Study of Patent Litigation Timing: Could a Patent Term Reduction Decimate Trolls Without Harming Innovators?, 161 U. PA. L. REV. 1309, 1346 (2013). He found that less than 14% of patent litigations instigated by operating companies concerned patents with less than three and a half years left until their expiration. Id. at 13091332. For non-practicing entities, 59% of their litigation events dealt with such patents. Id. Love also found that NPEs file about twice as many suits per patent as operating companies and assert each patent against more than four times as many alleged infringers. Id. at 1336.

116. Id. at 19 n.62.
117. Id. at 7. Their argument is that because the same number of defendants were ultimately sued, the rise in patent lawsuits referenced in other studies must have been caused by the fact that the AIA, by limiting joinder, forces PAEs to file more suits per the number of defendants they wish to sue. Put differently, the authors believe that if a rising number of PAE lawsuits were actually indicative of PAE growth, more defendants would have been sued. Id. at 2.
118. Sannu K. Shrestha, Note, Trolls or Market-Makers? An Empirical Analysis of Nonpracticing Entities, 110 COLUM. L. REV. 114, 148–49 (2010). The four proxies used to determine patent value were number of citations received (“forward cites”), number of technology classes covered by the forward cites (“generality”), number of technology classes covered by prior art patent references (“originality”), and the number of claims. Id. at 141–43.
blown. The debate on the impact of PAEs is far from over and promises to rage for the foreseeable future as new studies are completed and Congress undertakes new measures of its own.

III. PREVIOUS, CURRENT, AND FUTURE ATTEMPTS AT CURBING PAE ACTIVITY

The ongoing debate about the effects of PAE activity has not ceased influential political figures from taking action within the patent system. This history includes judicial, legislative, and executive actions, none of which have yet meaningfully decreased the prevalence of PAE activity. This section will cover past, current, and likely future attempts at deterring PAE activity.

A. JUDICIAL ATTEMPTS

In 2007, a law review article was published with a title asserting that the Supreme Court had begun waging war on patent trolls.\footnote{119}{See Todd Klein, Comments, Ebay v. MercExchange and KRS Int'l Co. v. Teleflex, Inc.: The Supreme Court Wages War on Patent Trolls, 112 Penn St. L. Rev. 295, 295 (2007).} The Supreme Court had just decided eBay, Inc. v. MercExchange\footnote{120}{eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).} which notably overruled years of precedent on the issue of permanent injunctions in patent infringement suits and demonstrated the Supreme Court’s awareness of PAE activity. In a lower court decision, the Federal Circuit had stated that “the general rule is that a permanent injunction will issue once infringement and validity have been adjudged.”\footnote{121}{MercExchange, L.L.C. v. eBay, Inc., 401 F.3d 1323, 1338 (Fed. Cir. 2005).} The Supreme Court found this standard inappropriate, reversed the Federal Circuit, and concluded that patent infringement suits should be evaluated under the four-part test traditionally applied in courts of equity to determine whether a permanent injunction should issue.\footnote{122}{eBay, 547 U.S. at 391–92 (observing that the traditional equity test for an injunction should apply to the Patent Act and that nothing indicates that Congress intended to depart from this standard). This meant that for a permanent injunction to be issued in future cases, a plaintiff would have to demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction. Id.} The Court’s opinion focused on Congress’s failure to leg-
isolate a different standard in the Patent Act and argued that the equity standard was consistent with the Court’s treatment of injunctions under the Copyright Act. 123

Justice Kennedy’s concurrence in the case was noteworthy for its observations about the use of injunctions in patent suits. Joined by Justices Stevens, Souter and Breyer, Justice Kennedy argued that historical arguments lack force today 124 and stated that “[a]n industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees.” 125 This led to his admonition that “[w]hen the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.” 126 This concurrence was the first time the Supreme Court had touched on PAE activity and reflected a concern about its effects.

Following eBay, smart money predicted that permanent injunctions would be exceedingly more difficult to obtain for patent litigants. 127 Given the Court’s sudden shift away from precedent, eBay did change how district courts issued permanent injunctions in patent cases; an empirical study indicated that the permanent injunction rate for district courts in patent cases dropped from 95% pre-eBay to 75% post-eBay. 128 Even more promising, injunction denial rates (where the injunction was contested) for actions brought by PAEs have risen to over 90%. 129

However, a side effect of eBay has been to shift more PAE cases to the ITC, where non–practicing-entity suits have risen from 7% to 25% of the docket from 2006 to 2011. 130 The ITC is an agency empowered to prevent the importation of products that infringe on patented material. 131 Because most technology is now

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123. Id. at 391–93.
124. Id. at 396.
125. Id.
126. Id. at 396–97.
127. Nina Medlock, Robert Resis & Joslyn Barritt, The Non-Practicing Patentee’s Right to A Permanent Injunction Restraining Patent Infringement: Going Once, Going Twice, Gone?, 18 INTELL. PROP. & TECH. L.J. 1, 3 (2006). This was a very important development given the role that the threat of permanent injunctions plays in furthering patent holdup.
129. Id. at 10.
130. Id. at 16–17.
manufactured overseas and Congress has relaxed the domestic industry requirement, the ITC can now hear most patentee complaints.\textsuperscript{132} The difficulty with this scheme is that the ITC’s sole remedy has been to permanently enjoin importation of infringing material; it has declined to follow the standard of \textit{eBay}, hears only limited infringement defenses and cannot issue damages or hear countersuits.\textsuperscript{133} Accordingly, PAEs have increasingly picked the ITC as a forum in an effort to holdup firms for royalties.\textsuperscript{134}

It may be a lesson to courts that \textit{eBay} expressly changed how freely permanent injunctions are issued and yet in practice only shifted the location of patent holdup. Still, since \textit{eBay}, the Supreme Court has attempted to further redefine and clarify the boundaries of the patent system. A year after \textit{eBay}, the Supreme Court tackled \textit{KSR International Company v. TeleFlex Inc.}\textsuperscript{135} The Federal Circuit had reversed a lower court’s patent invalidation on the grounds that the lower court did not properly apply the teaching-suggestion-motivation (TSM) test.\textsuperscript{136} The Supreme Court reversed, holding that the Federal Circuit, by constraining its consideration of obviousness to the TSM test, had erred in turning a general principle into a “rigid rule.”\textsuperscript{137} The decision appeared to provide lower courts with greater tools to invalidate patents.\textsuperscript{138} In application, the opinion has significantly affected

\begin{itemize}
\item § 1337, which declares that importing material that infringes on “a valid and enforceable United States patent” is unlawful and authorizes the International Trade Commission to investigate any alleged violations. See 19 U.S.C. § 1337 (2006).
\item 132. Chien & Lemley, \textit{supra} note 72, at 14–15.
\item 133. \textit{Id.} at 14; see also \textit{Spansion, Inc. v. ITC}, 629 F.3d 1331, 1359 (Fed. Cir. 2010) (explaining the court’s approval of the ITC not applying the \textit{eBay} standard). The ITC can also remedy these complaints much faster than normal federal courts as a result of these limits on ITC action. Chien & Lemley, \textit{supra} note 72, at 14.
\item 134. Chien & Lemley, \textit{supra} note 72, at 15 (“Nearly every patentee can bring an ITC complaint, and nearly every accused infringer is a potential ITC defendant, converting the ITC into a mainstream venue in which to file patent grievances.”).
\item 136. Teleflex Inc. v. \textit{KSR Int’l Co.}, 119 F. App’x. 282, 285–86, 288 (Fed. Cir. 2005). The TSM test is used to determine if the prior art, the problem’s nature, or the knowledge of an ordinary person with skill in the art would suggest to combine prior art, thereby rendering the patent obvious. \textit{Id.}
\item 137. \textit{KSR Int’l Co.}, 550 US at 419.
\item 138. See Justin Lee, \textit{Note, How KSR Broadens (Without Lowering) the Evidentiary Standard of Nonobviousness}, 23 BERKELEY TECH. L.J. 15, 46 (2008) (arguing that the evidentiary burden was not lowered but that nonobviousness was turned back into a question of law rather than a question of fact); see also Klein, \textit{supra} note 119, at 312–13 (predicting that \textit{KSR} would hamper patent trolls as more of their patents would be invalidated). This would be important for PAEs insofar as it would make it easier for targets of PAEs to challenge the underlying patents as invalid.
\end{itemize}
the Federal Circuit’s approach to obviousness questions: not only has the Federal Circuit found obviousness more frequently in the wake of *KSR Technology*, but it has also used the TSM test far less often, even despite the Supreme Court’s approval of a less-rigid version. Despite these results, *KSR Technology* has undergone a divergence in “judicial and real-world success.” Academics and practitioners alike have lamented that *KSR*’s subjective-factor test has been difficult to apply and even tougher to labor under.

In *Bilski v. Kappos*, the Court found that a patent claimed for the invention of a process by which buyers and sellers in the commodity market for energy can hedge against price changes was rightfully rejected as an “abstract idea.” The “abstract idea” exception the Court bolstered in *Bilski* has been described as less concerned with defining “abstract idea” than with “preventing patentees from claiming broad ownership over fields of exploration rather than specific applications of those fields.” And in *Microsoft v. i4i Ltd. Partnership*, the Court affirmed the Federal Circuit’s finding that a defense of patent invalidity had to be proven by “clear and convincing evidence” rather than by a preponderance of the evidence.

Overall, these four decisions demonstrate the Supreme Court’s recent, concerted effort to clarify the judicial process for patents. In *eBay*, this effort was informed by the prevalence of PAE activity. Future action by the Court in this realm is guaranteed, as the Court recently agreed to hear a case on the topic of awarding attorneys fees to targets of patent infringement suits.

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140. *Id.* at 754–55.


144. *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S.Ct. 2238, 2242, 2244 (2011). This clearly has important ramifications for PAEs, as the case had the potential to lower the standard for finding patent invalidity, thereby making it much easier for targets to fend off assertions by attacking the underlying patents.

B. CONGRESSIONAL ATTEMPTS

Congress has been more direct in its attempts to address patent issues. In 2011, Congress passed the America Invents Act (AIA), which represented a major reform to the patent system and changed the method of issuing patents from first-to-invent to first-to-file.146 Included in the bill were provisions aimed at inhibiting frivolous PAE activity. For example, section 19 of the bill requires a basis for joinder or consolidation of patent infringement suits beyond the fact that multiple defendants had infringed the same patent.147 Legislators sought to force PAEs to file individual lawsuits against those businesses or individuals whom they wished to assert their patents against.148 Commenters recognized that this provision had the potential to deter PAE activity.149

Other AIA changes further focused on altering patent validity challenges, thereby indirectly affecting PAEs. A post-grant review provision in the AIA allows third parties to petition for a United States Patent and Trademark Office (USPTO) review of an approved patent to examine if the patent is in fact valid.150 The provision also empowers courts to stay patent infringement litigation once a party initiates a USPTO post-grant review.151 This provision has already been praised as a cheaper, quicker avenue for would-be PAE targets to challenge the validity of asserted patents.152 The AIA also liberalized the definition of “prior

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148. Bryant, supra note 146, at 700.
149. See, e.g., id. at 703–04 (arguing that provision may result in fewer defendants being sued because it will increase patent trolls’ litigation costs). David O. Taylor further suggested that limiting joinder would lower litigation costs of alleged patent infringers, who must confront especially complex patent litigation if joined with other accused infringers. David O. Taylor, Patent Misjoinder, 88 N.Y.U. L. REV. 652, 673–75 (2013).
151. Id. § 325, 125 Stat. at 307.
152. Ryan R. Klimczak, Note, *i4i and the Presumption of Validity: Limited Concerns Over the Insulation of Weak Patents*, 27 BERKELEY TECH. L.J. 299, 320–21 (2012). This provision is nonetheless somewhat limited in its possible effect given that the patent can only be challenged through a post-grant review for nine months. Id.
This has important implications for those looking to defend patent validity, as proof of prior art can render a patent obvious and therefore invalid. Finally, the AIA expanded several patent infringement defenses, most notably the prior use commercial defense.

Given that many of these changes have only taken hold in the last two years, it is still too early to judge how effective these provisions are or can be, recent praise notwithstanding. However, Congress does not appear to be as optimistic that the AIA provisions are sufficient to address the perceived costs of PAE activity. Instead, the past year has been dominated by the introduction of bills explicitly targeting PAEs, often still referred to as patent trolls. Since the passage of the AIA, nine new bills have taken aim at the problems PAEs pose. These bills include reforms across them such as: fee-shifting for assertion targets, transparency in patent ownership, USPTO post-grant review changes, heightened pleading requirements, new joinder and intervention rules, and bond requirements. Only one bill, however, the Innovation Act (H.R. 3309) has made it out of committee and been

passed by a chamber of Congress. It remains to be seen if any of these bills will become law. Given these many proposals though, it appears evident that Congress is close to establishing further constraints on PAEs in the near future.

C. EXECUTIVE ACTION

President Obama has been vocal about his wish to meaningfully deter PAE activity. During a “fireside chat” in February 2013, he expressed his desire to pursue further patent reform aimed at entities that are “just trying to essentially leverage and hijack somebody else’s idea and see if they can extort money out of them.” He followed through on this issue in June 2013, when his office not only issued a report on PAEs, but also issued seven legislative recommendations and five executive actions. The legislative recommendations included: (1) requiring patentees and applicants to disclose the “Real Party-in-Interest”; (2) permitting more discretion in awarding fees to prevailing parties in patent infringement suits; (3) expanding the USPTO’s transitional program for covered business-method patents and to permit wider challenges to already-granted patents; (4) protecting downstream consumers and businesses using allegedly infringing products they bought off the shelf; (5) changing the ITC standard for obtaining an injunction; (6) using demand letter transparency to curb abusive suits; and (7) ensuring that the ITC has adequate flexibility in hiring qualified administrative law judges. Many of these recommendations are included in the

159. Edward Wyatt, House Bill Raises Bar for Suits Over Patents, N.Y. TIMES (Dec. 5, 2013), http://www.nytimes.com/2013/12/06/business/house-bill-raises-bar-for-suits-over-patents.html?_r=0; see also Innovation Act, supra note 158 (listing the latest action as the bill having been read twice and referred to the Committee on the Judiciary).


163. Id.
nine bills put forth for patent reform. President Obama subse-
quently urged Congress to take further action in his 2014 State of
the Union address.164

President Obama also targeted the USPTO for reform via ex-
ecutive actions. His executive actions included: (1) beginning
the USPTO rulemaking process of requiring patent applicants and
owners to regularly update ownership; (2) providing more target-
ed training to USPTO examiners and adopting strategies to im-
prove patent claim clarity; (3) publishing (through the USPTO)
educational and outreach information for those end-users target-
ed by PAEs; (4) holding high-profile events on the impact of PAEs
and expanding the USPTO Edison Scholars Program to sponsor
distinguished academics in their research of abusive litigation
issues; and (5) to have the ITC and Customs and Border Protec-
tion (CBP) review their inter-agency procedures used to evaluate
exclusion orders and to make enforcement efforts more transpar-
ent, effective and efficient.165

These recommendations and orders come at a time when other
federal agencies are increasing their interest in PAE activity.
The FTC and DOJ held a joint workshop on the topic of PAEs on
December 10, 2012, and on September 27, 2013, the FTC an-
ounced that it was commissioning a study of PAE activity under
its section 6 powers.166 The study is to be conducted by examin-
ing the business records of twenty-five of the leading PAEs and is
aimed at examining “how PAEs do business and [to] develop a
better understanding of how they impact innovation and competi-
tion.”167

As with recent legislative action, it is difficult to foresee what
the results of the President’s recommendations and actions will
be. If nothing else, these actions by the President, Congress and
agencies like the FTC highlight that federal policymakers at all
levels are ready to tackle the issue of PAEs.

164. Obama Urges Congress to Pass Anti-Patent Troll Bill, REUTERS (Jan. 28, 2014),
166. Press Release, Fed. Trade Comm’n, supra note 14; Patent Assertion Entity Activi-
4, 2013).
ing the FTC broad authority to require persons, partnerships and corporations to file
information with them for the purposes of investigating compliance or publishing reports).
D. STATE ACTION

State lawmakers and officials have also begun to take action against PAEs. As mentioned previously, Vermont Attorney General Sorrell filed suit against MPHJ. Both New York and Minnesota have reached pre-litigation settlements with MPHJ to prevent it from continuing to send demand letters to businesses and other entities within their borders. Nebraska has notified MPHJ that its practices may violate the state’s laws against unfair and deceptive business practices. Many other state AGs have announced that PAEs are a growing problem and should be investigated by the FTC.

In addition to its ground-breaking suit against MPHJ, Vermont became the first state to pass a consumer protection law against “Bad Faith Assertions of Patent Infringements.” Governor Peter Shumlin signed the law on May 22, 2013, the same day AG Sorrell filed against MPHJ. The statute lists factors that courts should take into account when determining whether a bad faith assertion was made, allows both the state AG and assertion targets to bring suit, and gives judges the power to require patent asserters to post a bond estimated at the cost of the patent litigation if there is a reasonable likelihood that the patent assertion was made in bad faith. Although similar legislation has yet to be passed in other states, it is just a matter of time before they too follow Vermont’s example.

169. See supra Part I.
170. See Bjorhus, supra note 13; Stempel, supra note 13.
174. VTDIGGER.ORG, supra note 1.
175. See Vt. STAT. ANN. tit. 9, §§ 4195–99 (West 2013).
IV. TAKING THE NEXT POLICY STEP IN TRYING TO DETER ABUSIVE PAE ACTIVITY

As Part III demonstrated, PAE activity has been an extremely hot topic for policymakers at all levels. Although the academic debate continues to lack clear consensus, policymakers have understandably found it difficult to ignore studies that have estimated the per-year cost to the economy of NPEs at $29 billion. Accordingly, if PAE activity is to be deterred, it bears considering what the best approach is for doing so. This Part will modestly attempt to determine the best way to reduce harmful PAE activity.

A. LIMITS ON CURRENT APPROACHES

In evaluating the proper method of deterring PAE activity, it is important to recognize that all actions by the four political bodies covered in Part III of this Note have limitations. This section will evaluate those limits and put them in the context of PAE activity.

1. Limits on Judicial Actors

For judicial actions, recent cases demonstrate the limits courts face in affecting change to the patent system and, by extension, the business model of PAEs. The case that most directly targets PAEs, eBay, is almost eight years old, and PAE activity has only increased in its wake. The rule that eBay instituted has been partially circumvented by those PAEs turning to the ITC to recreate the problem of patent holdup. Furthermore, both KSR Technology and Bilski demonstrate that the Court has identified

177. See Shapiro, Presentation, supra note 39, 31–33 (arguing that more information is necessary); James F. McDonough III, Comment, The Myth of the Patent Troll: An Alternative View of the Function of Patent Dealers in an Idea Economy, 56 Emory L.J. 189, 204 (2006) (arguing that patent trolls serve a valuable purpose as market makers for patents); Bessen & Meurer, supra note 49, at 421 (arguing that their empirical study demonstrates that the patent system needs significant reform to discourage troll-like behavior).

178. See Bessen & Meurer, supra note 49, at 408.


180. See, e.g., Jeruss, Feldman & Walker, supra note 41 (finding that patent monetizer litigation rose from 22% in 2007 to 40% in 2011).

181. Chien & Lemley, supra note 72, at 16–17 (concluding that PAE suits represented 25% of ITC cases in 2011 as compared to 7% in 2006).
aspects of the patent system it finds intolerable—for example, a rigid TSM test or patenting a commodity-hedging process—but that it has also struggled to delineate the future of those limits. In both cases, the Court left significant guesswork for lower courts to interpret its holdings. Moreover, *i4i Limited Partnership* emphasizes the Court’s continued belief in the strictest presumption of validity for patents, even when it comes at the expense of those targeted by patent infringement suits. All four of these cases highlight the Court’s difficult position in adjudicating patent cases as it walks the line of staying true to the principles of the patent system while simultaneously adapting to modern needs. Most disturbingly, these episodes cast doubt that courts will soon provide an effective remedy to the systematic patent issues that have allowed PAEs to thrive.

Still, there is some historical evidence to support the notion that courts will be key in solving the PAE puzzle. In an article comparing the current patent “crisis” to previous patent crises, Colleen Chien notes that courts were critical in resolving the Railroad Patent Crisis. The courts kept the patent system un-

183. See Ermer Simic, *The TSM Test is Dead! Long Live the TSM Test! The Aftermath of KSR, What Was All the Fuss About?*, 37 AIPLA Q.J. 227, 247, 249 (2009) (noting that most Federal Circuit decisions post-*KSR* have construed its holding narrowly but that a different Federal Circuit decision seemed to do away with the TSM test altogether); Rantanen, *supra* note 139, at 762–63 (arguing that while the TSM test framework was disparaged, the new lack of a clear analytical framework for obviousness may yet be frustrating for patent holders and challengers); Lemley, Risch, Sichelman & Wagner, *supra* note 143, at 1322 (concluding that debate about *Bilski*’s holding is ongoing as the Federal Circuit has made contradictory statements as to the role of the machine-or-transformation test).
185. Klimczak, *supra* note 152, at 309 (“In *i4i*, Microsoft contended that the clear and convincing standard hinders the goal of patent law by dampening innovation and shielding spurious patents from invalidity challenges.”). An interesting aspect of the *i4i Ltd. Partnership* decision was that the Supreme Court extended a heightened standard to patents that it has not extended to other areas in intellectual property. Irina Oberman, *Maintaining the Clear and Convincing Evidence Standard for Patent Invalidity Challenges in Microsoft Corp. v. I4I Limited Partnership*, 131 S. Ct. 2238 (2011), 35 HARV. J.L. & PUB. POL’Y 439, 446–447 (2012).
186. In the introduction to her article, Chien declares that the patent system is in crisis, as it is no longer living up to its promise to promote progress but is instead now often blamed for stifling innovation. Chien, *supra* note 19, at 327.
187. *Id.* at 349–50. The Railroad Patent Crisis grew out of the surge in industrial development that overwhelmed many government institutions, including the USPTO. A patent backlog arose and soon the railroad companies found themselves subject to many high-profile patent infringement suits brought by competitors and patent speculators. *Id.* at 346.
encumbered by abstract concepts and supported formidable defense efforts by collective groups of railroad companies to fend off patent claims through self-help.\(^{188}\) This research appears to indicate that courts are well suited to conservatively facilitate change without wildly shifting the Court’s view of patent law.

2. **Limits on Legislative Action**

Despite the prospect for favorable court-led advances in the area, federal legislation may be well situated to deter PAE activity. As detailed above, multiple bills await vote in Congress,\(^{189}\) many of which deter PAE litigation by making it more difficult, costly, and risky to bring.\(^{190}\) Several bills’ multi-faceted approach addresses not only patent litigation but also broader issues like patent owner transparency.\(^{191}\)

Still, there is reason to be cautious about how much any legislation in this area can actually accomplish. The brief period in which the AIA has been in place suggests that legislation may merely shift how PAEs operate and that PAEs may not be as sensitive to costs as previously thought. For example, though new joinder rules were meant to deter PAE activity,\(^{192}\) the number of lawsuits jumped following their implementation.\(^{193}\) Multiple commenters have pointed out that this was likely due to the AIA itself, since many wanted to file before the law took effect and others had to file multiple lawsuits afterwards.\(^{194}\) Commenters agree, however, that the number of defendants actually sued has not significantly dropped despite the added costs of the joinder rule.\(^{195}\)

Another obstacle for deterring abusive PAE activity via legislation may lie in challenges that are much broader than those targeted by the bills thus far proposed. It is possible that the

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188. *Id.* at 349–50.
189. *See supra* Part III.B.
190. *E.g.*, *Saving High-Tech Innovators from Egregious Legal Disputes Act of 2013, supra* note 158; *see also* ELECTRONIC FRONTIER FOUND., *supra* note 157.
191. *E.g.*, *End Anonymous Patents Act, supra* note 158.
192. *See Bryant, supra* note 146, at 702 (concluding that it is reasonable to infer that Congress enacted the joinder rule changes in the AIA with patent trolls in mind).
193. *Chien, supra* note 106 (finding that PAE suits had risen to 62% of all patent litigation in 2012).
195. Cotropia, Kesan & Schwartz, *supra* note 110, at 19 n.62 (concluding that the number of defendants dropped from 9,894 in 2010 to 9,419 in 2012).
true drivers of profitable PAE activity have been patent thickets and systemic issues with how easily patents are issued, specifically in industries such as information technology.\textsuperscript{196} If that is the case, most of the bills proposed would be inadequate to deter PAE activity since none clearly focus on USPTO patent issuance.\textsuperscript{197} Some bills have included provisions expanding the role of post-grant review,\textsuperscript{198} but even that process faces meaningful limitations.\textsuperscript{199} Furthermore, even if a bill were proposed that could address larger systemic concerns, it remains unclear whether that bill would have a net socially beneficial effect since any reform in patent-issue protocol would also affect small inventors, operating companies, start-ups, and universities.\textsuperscript{200} This risk of overreach has already been discussed by those skeptical of changes to the current patent litigation system, and additional

\textsuperscript{196} See Shapiro, supra note 82, at 119 (describing the problem of patent thickets); Lemley & Melamed, supra note 38, at 2180 (concluding that patent trolls are merely symptoms of much larger problems with the patent system).

\textsuperscript{197} See supra Part III.B.


\textsuperscript{199} Post-grant review can only be filed for within nine months of the patent being issued and is only available against those patents issued after March 16, 2013, i.e. those that are generally subject to the first-to-file provisions of the AIA. Stoll, supra note 198, at 3; see 35 U.S.C. § 321(c) (2012). There are advantages though to post-grant review, namely that any post-grant review will be decided within a year and any decision will create issue estoppel in any civil action over the validity of the patent. 35 U.S.C. §§ 325(e)(2), 326(a)(11) (2012). The AIA did create \textit{inter partes} review, a method of patent review that can take place after nine months. 35 U.S.C. § 311 (2012). However this method can only attack the issuance of a patent on the grounds of novelty or non-obviousness and requires a demonstration that the petitioner has a reasonable likelihood of prevailing. 35 U.S.C. §§ 311(b), 314(a). For comparison’s sake, post-grant review requires a demonstration that it is more likely than not that at least one of the patented claims is patentable. 35 U.S.C. § 324(a) (2012). It must be noted that the aspect of estoppel for these types of patent review, could be effective in getting litigants to utilize the more stream-lined USPTO process, but it does require all arguments to be made at the time of the USPTO proceeding, Stoll, supra note 198, at 5, thereby making post-grant review somewhat impractical due to its time limit.

\textsuperscript{200} Cf. Chien, supra note 19, at 347–48 (arguing that broad legislative reform failed to be passed in previous railroad crises because of concerns that changing the system to help the railroad and agrarian industries would cause problems for other industries and inventors). This risk of overreach is undoubtedly real, as patent reform that is truly systemic would not truly be tailored around the activities of PAEs. For example, Chien notes in the same article that changing maintenance fees for software patents would not only affect patent trolls, but also startups and large companies that are invested in software patents. \textit{Id.} at 362.
legislation-induced systemic reforms would undoubtedly draw a louder call for caution. Legislators face a difficult position then: current bills may not address broad patent problems, but true reform may prove too costly amidst concerns of over-inclusiveness.

Historical evidence also suggests legislatures may not be capable of solving the PAE issue. In the same article that praised judges for their role in solving previous patent crises, Chien found that broad-based legislative reform was not passed during these crises, largely because other non-affected parties worried that broad reform would negatively affect them. Moreover, Chien found that several of the reforms proposed today were previously proposed during past crises and were nonetheless resisted due to concerns about unintended collateral consequences. Chien concluded from this historical evidence that “rather than seek broad-based legislative reform, patent reformers would be well-advised to focus on incremental court and market-based reform.”

Ultimately, whether legislative reform offers a real chance at deterring PAE activity remains to be seen. No bill has been passed yet and the potential effectiveness of any legislation remains completely speculative given the variance in current bills’ scope and aim. Between the difficulty of tailoring legisla-

201. E.g., Mullin, supra note 160 (detailing how some senators have expressed concern about not only inadvertently harming universities with too broad of reform, but also about reducing access to the courts for small inventors).
203. Id. at 377–78 (noting that an agrarian reform proposal would have shifted fees in favor of the defendant in low-value cases even where the plaintiff prevailed); id. at 365 (describing how an independent invention defense was proposed in the 1870s but was resisted as undermining the patent reform system). An independent invention defense has recently been discussed by notable patent scholars. See Carl Shapiro, Patent Reform: Aligning Reward and Contribution, 8 INNOVATION POLY & ECON. 111, 127 (2008).
204. Chien, supra note 19, at 390. When Chien refers to “market-based reform” she is referring to collective action organizations such as RPX that buy up threatening patents on behalf of their members. Id. at 388. This fits with the historical evidence that suggested collective action among railroads during the Railroad Patent Crisis was a large part of what solved the crisis. Id. at 349–50. It is worth noting that RPX’s actions are referred to as defensive patenting, even though they are a third party shielding operating companies. Cf. Colleen V. Chien, From Arms Race to Marketplace: The Complex Patent Ecosystem and its Implications for the Patent System, 62 HASTINGS L.J. 297, 321 (2010) (“This defensive strategy has consisted of obtaining a large portfolio of patents for cross-licensing in order to avoid licensing fees and to prevent competitors from blocking its products.”).
205. The Innovation Act, H.R. 3309, remains in the Senate Judiciary Committee. Innovation Act, supra note 158.
206. See supra Part III.B.
tion to the contours of the problem and historical evidence to the contrary, legislative reform does not seem to be viable as the principal vehicle for targeting PAE activity.

3. Limits on Executive Action

Future executive branch attempts to curb PAE activity would almost assuredly come through federal agencies, as President Obama has already issued executive orders and legislative proposals on the topic. For instance, the FTC could follow up on its recently initiated section 6 study of PAE activity by bringing suit against some PAEs under its section 5 powers. However, any such suit by the FTC would be unable to target the patent assertions themselves. The Supreme Court declared in Professional Real Estate Investors v. Columbia Pictures Industries that a suit is only considered sham litigation if it is “objectively baseless.” With such a low standard, the FTC could not bring suit against any PAEs with anything even remotely approaching good faith. Therefore, any legal claim brought by the FTC against PAEs would have to focus on aspects of PAE behavior before the actual filing of any lawsuit rather than the litigation element of a patent assertion. The complaint filed by Vermont

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207. Press Release, The White House, supra note 15; see supra Part III.C.
210. 508 U.S. 49, 60 (1993). The Supreme Court also outlined a second step in the sham litigation determination, that being a required showing that any baseless lawsuit was meant to conceal an attempt to “interfere directly with the business relationships of a competitor.” Id. at 60–61. This second step is important, as the collateral, subjective purpose of the lawsuit must be to inflict an anticompetitive injury. See S.W. O’Donnell, Unified Theory of Antitrust Counterclaims in Patent Litigation, 9 VA. J. L. & TECH. 8, *26 (2004). A finding of “sham litigation” creates an exception to the Noerr-Pennington doctrine, which “contemplates that activities aimed at influencing government action, either by petitioning the government or commencing or supporting litigation, are immune from the federal antitrust laws.” James B. Perrine, Defining the “Sham Litigation” Exception to the Noerr-Pennington Antitrust Immunity Doctrine: An Analysis of the Professional Real Estate Investors v. Columbia Pictures Industries Decision, 46 ALA. L. REV. 815, 815 (1995).
211. The standard was described by the Supreme Court as meaning that “the lawsuit must be objectively baseless in the sense that no reasonable litigant could realistically expect success on the merits.” Prof’l Real Estate Investors, 508 U.S. at 60.
against MPHJ would be a good example to emulate, as Vermont sued MPHJ for using demand letters that were allegedly both unfair and deceptive.\textsuperscript{212}

Still, making the FTC the main monitor of PAE activity would not come without drawbacks. The FTC, as a federal agency with a limited number of resources, would have to be judicious in its choice of targets.\textsuperscript{213} Relying on the FTC would also mean that the major enforcement mechanism would be litigation, or the threat thereof, which could prove time-consuming and would require faith in the courts to be receptive to the idea that PAE actions such as mailing deceptive demand letters could constitute “unfair or deceptive acts or practices.”\textsuperscript{214} Finally, there are legitimate critiques of possible section 5 use against PAEs. For instance, a FTC Commissioner recently expressed his belief that section 5 should not be used against PAEs as an “end-around” to avoid the traditional antitrust economic analysis of effects on competition.\textsuperscript{215} The Commissioner pointed to the dangers of condemning a practice before fully understanding it.\textsuperscript{216}

4. \textit{Limits on State Action}

State action carried out by state attorneys general and state legislatures faces many of the same constraints that federal policymakers do. Over-inclusiveness and the challenge of effectively targeting PAEs raise difficult questions for state lawmakers to wrangle with. Notably, state attempts at handling the problem have diverged markedly from those at the federal level. While proposed federal reforms have focused on patent litigation or review,\textsuperscript{217} corollary state legislation has concentrated on consumer

\begin{itemize}
  \item \textsuperscript{212} Complaint, \textit{supra} note 1, at 8–10.
  \item \textsuperscript{213} \textit{The FTC at 100: Where Do We Go From Here?: Hearing Before the Subcomm. on Commerce, Mfg., and Trade of H. Comm. on Energy and Commerce}, 113th Cong. 7 (2013) (statement of Edith Ramirez, Chairwoman, FTC) [hereinafter Ramirez] (“Like other governmental organizations, the Commission seeks ways to do more with less. Resource constraints, despite a growing workload, remain a constant challenge. The FTC will continue to leverage its resources through careful case selection and by partnering with public and private entities on enforcement and educational efforts.”).
  \item \textsuperscript{214} See 15 U.S.C. § 45.
  \item \textsuperscript{216} \textit{Id.}
  \item \textsuperscript{217} \textit{E.g.}, Innovation Act, \textit{supra} note 158.
\end{itemize}
protection.\textsuperscript{218} States like New York and Minnesota have reached cease and desist settlements with MPHJ with the express aim of protecting state citizens.\textsuperscript{219}

That state and federal approaches have diverged is not surprising, as state legislatures and attorneys general cannot take action on issues of federal court procedure or the patent system generally. This also exposes a potentially fatal weakness of state legislative action in this area: preemption. Patent law has long been recognized as a federal issue, and multiple commenters have observed that Vermont’s legislation regarding bad faith patent assertions may be preempted.\textsuperscript{220} Preemption is a distinct possibility given the Federal Circuit’s ruling in Ultra-Precision Mfg. v. Ford Motor Co. that observed:

Federal patent law reflects the objectives of Congress, which include seeking to foster and reward invention, promoting disclosure of inventions to stimulate further innovation and to permit the public to practice the invention once the patent expires, promoting the stringent requirements for patent protection . . . to assure that ideas in the public domain remain there for the free use of the public, providing a “clear federal demarcation between public and private property,” and promoting nationwide uniformity in patent law. A state cause of action that frustrates these objectives is preempted.\textsuperscript{221}

\textsuperscript{218} See Goldman, supra note 173; Karmasek, supra note 176.

\textsuperscript{219} See Stempel, supra note 13; Bjorhus, supra note 13.

\textsuperscript{220} See Goldman, supra note 173 (“First, due to federal preemption doctrines, states cannot enact their own patent laws, and that preemption principle may apply to this law.”); Mike Masnick, Vermont Declares War on Patent Trolls; Passes New Law and Sues Notorious Patent Troll, TECHDIRT.COM (May 23, 2013), http://www.techdirt.com/articles/20130523/10255025186/vermont-declares-war-patent-trolls-passes-new-law-sues-notorious-patent-troll.shtml. On the other hand, there are some commenters who are more optimistic that the law passed by Vermont appears to be crafted carefully enough to avoid preemption. See, e.g., Michael Sherby, Vermont’s Move to Target Patent Trolls, BAKER BOTTAS (July 2013), http://www.bakerbotts.com/file_upload/IPReport201307-VermontsMovetoTargetPatentTrolls.htm (“Vermont’s lawsuit and Bad Faith Assertions of Patent Infringement law appear to be carefully crafted to avoid preemption and attempts to address tangential issues created by some instances of NPE patent infringement assertion within the purview of state unfair trade practices and consumer protection laws.”).

\textsuperscript{221} Ultra-Precision Mfg., Ltd. v. Ford Motor Co., 411 F.3d 1369, 1378 (Fed. Cir. 2005); see also Bonito Boats, Inc. v. Thunder Craft Boats, 489 U.S. 141, 152 (1989) (“Thus our past decisions have made clear that state regulation of intellectual property must
Vermont’s legislation arguably already disrupts national uniformity and raises questions as to how it affects federal patent law’s goal of “promot[ing] the stringent requirements for patent protection.”

Furthermore, even if states are allowed to continue pursuing non-legislative solutions for curbing PAE activity (such as bringing a suit under a consumer protection act), there are still inherent limits to state action. The most important limit is the natural collective action problem that will result if the issue is left to the states. Some states will pursue new or continued action while others will undoubtedly stay silent. Uniformity and a federal initiative to protect PAE targets seem preferable. This would not only help curb PAE activity nationwide (especially since PAEs like MPHJ operate across many states), but it would also prevent turning PAEs into an issue where state discrepancies frustrate consumer protection.

B. SECTION 5 OF THE FTCA AS THE BEST CHOICE FOR ACTION

Given these limits on how various political actors can target PAE activity, there is a clear need for an innovative approach in curbing patent abuse by PAEs. With that in mind, the FTC should use its section 5 powers—which states in part that “[t]he Commission is hereby empowered and directed to prevent persons, partnerships, or corporations . . . from using unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce”—to target PAEs that utilize unfair and deceptive practices in asserting their patent rights. This will not capture all PAE activity, and the FTC is not without limitations. However, section 5 is the best current compromise that can be effective yet narrowly tailored.

Since 1938, the FTC has had the authority to prevent “unfair or deceptive acts.” This power has often been understood in

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222. Ultra-Precision, 411 F.3d at 1378.
223. One could imagine a situation where patent assertion entities simply move state to state targeting consumers in those states where protection or enforcement is minimal. Arguably MPHJ has already shown signs of that behavior given that it has shifted its operations state to state. See supra notes 1, 20.
225. The FTC was originally founded by the Federal Trade Commission Act (FTCA) in 1914. The early operations of the FTC focused on enforcing the Clayton Act (also signed in.
terms of its potential for usage in antitrust law, such as the recent decision in *Federal Trade Commission v. Actavis.* However, the FTC’s enforcement power has been recognized to extend well beyond the reach of the Sherman and Clayton Acts. Indeed, the FTC’s primary goal is broader than merely regulating competition: it aims to protect consumers.

In that vein, the FTC can and should adopt a policy towards PAEs similar to those strategies that several state attorneys general have implemented. Such a policy would focus not on the PAE suit itself, but on how PAEs assert their rights. In the Vermont lawsuit against MPHJ, the attorney general asserted that MPHJ had acted deceptively and unfairly over the course of its mailing campaign in multiple ways, including threatening litigation without the intent to ever file suit, using shell corporations to hide the true owners of patents, and leading businesses to believe that MPHJ had a reasonable basis for believing that they were infringing on their patents. Following this lead, the FTC’s strategy would be to declare a general policy that similar PAE strategies are “unfair or deceptive” and to then sue con-

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1914) and absorbing the work of the Bureau of Corporations. The FTCA also empowered the FTC to challenge "unfair methods of competition." In 1938, the Wheeler-Lea Act amended section 5 of the FTCA to proscribe "unfair or deceptive acts or practices." In 1973, Congress further amended the FTC’s role to allow it to seek preliminary and permanent injunctions. In 1975, the FTC was given express authority to promulgate rules addressing unfair or deceptive acts or practices. Ramirez, supra note 213, at 2–3.

226. 133 S.Ct. 2223 (2013) (holding that reverse payments by a patent holder to a generic manufacturer were unfair restraints on trade). The FTC’s complaint “alleged that respondents violated § 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, by unlawfully agreeing ‘to share in Solvay’s monopoly profits, abandon their patent challenges, and refrain from launching their low-cost generic products to compete with AndroGel for nine years.’” Id. at 2230.

227. “The ‘Unfair methods of competition’, which are condemned by § 5(a) of the Act, are not confined to those that were illegal at common law or that were condemned by the Sherman Act. Congress advisedly left the concept flexible to be defined with particularity by the myriad of cases from the field of business. It is also clear that the Federal Trade Commission Act was designed to supplement and bolster the Sherman Act and the Clayton Act, to stop in their incipiency acts and practices which, when full blown, would violate those Acts, as well as to condemn as ‘unfair method of competition’ existing violations of them.” Fed. Trade Comm’n v. Motion Picture Adver. Serv. Co., 344 U.S. 392, 394–95 (1953) (citations omitted).

228. Fed. Trade Comm’n, supra note 24 (listing the number one strategic goal as “Protect Consumers: Prevent fraud, deception, and unfair business practices in the marketplace.”).

229. Complaint, supra note 1, at 8–10.

230. Again, the practices that the FTC should target would be those where patent assertions are made in ways that are not transparent, clear or reasonable. In addition to Vermont’s example, another source to look for in targeting PAE activities would be the many legislative proposals on the topic. For instance, the Transparency in Assertion of
continuing abusers under section 5.  Given that PAEs that conduct business like MPHJ negatively impact consumers, a practice as frivolous and abusive as mass-mailing demand letters with misleading information can be framed as “unfair or deceptive.”

Much like in Vermont, the FTC suits should focus on requiring that any PAE activity be conducted transparently (who is suing, for which patents), clearly (what is the specific infringement Patents Act lays out nine different disclosures that it would require of patent asserters and three rules specifying those acts that would be “unfair or deceptive.” See Transparency in Assertions of Patents Act, S. 2049, 113th Cong., available at http://beta.congress.gov/bill/113th-congress/senate-bill/2049/text. Although it is unclear if this bill will pass, there are well-established schools of thought (be it in Vermont or Congress) as to what should be required of patent assertions.

231. An additional option would be to declare those assertion methods as “unfair or deceptive” through the FTC’s rulemaking procedures. See 15 U.S.C. § 46 (2012); 15 U.S.C § 57a(g) (2012). The downside to this approach though is that rulemaking can be very time-consuming, as previous FTC experience with rulemaking shows. See Harry and Bryant Co. v. FTC, 726 F.2d 993, 996 (4th Cir. 1984) (describing how the FTC’s efforts to promulgate a rule for the funeral home industry took twelve years from the beginning of the investigation to the effective date of the rule). It makes more sense for the FTC to rely on the exception to Section 553 of the Administrative Procedure Act which allows “interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice” to go forward without agency notice or a hearing. 5 U.S.C § 553(b)(A) (2012). Nothing in the FTCA requires the FTC to provide notice or a hearing for general statements of policy or interpretative rules. See 15 U.S.C. § 57a(a)(1)(A).

232. This has been a point of argument for those critical of the possibility of FTC involvement. See, e.g., Jessica M. Karmasek, Law Professor: McCaskill’s Legislation Has Potential to be ‘Most Destructive’ of Patent Troll Bills, LEGAL NEWSLINE (Mar. 6, 2014), http://legalnewsline.com/news/247736-law-professor-mccaskills-legislation-has-potential-to-be-most-destructive-of-patent-troll-bills (noting that questions have been raised as to why the FTC, without making the connection to how PAEs are harming consumers, should be responsible for their regulation). The best response to this point is that (a) there is significant evidence that PAEs inflict large costs on companies, which are then almost assuredly passed on to consumers, and (b) PAEs have asserted patents against businesses in their capacity as consumers. For example, in the MPHJ case in Vermont, the PAE was asserting a patent that allegedly bore on the combination of an e-mail system and a scanner system, but neither one alone (thereby explaining why MPHJ did not target those larger producers). As such, the businesses were not being targeted because they were producing a product that infringed on the PAE patents or because they were using a similar production process, but rather because they had ultimately bought two separate products and used them together as any other consumer would. See, e.g., Complaint, supra note 1, at Ex. A (a copy of a demand letter sent by MPHJ).

233. Not only was this argument of Vermont, see Complaint, supra note 1, at 8–10, but Congress has defined what it means for a practice to be unfair: one that “causes or is likely to cause substantial injury to consumers which is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to consumers or to competition.” 15 U.S.C. § 45(n) (2012). Again, the potential for consumer harm by PAE is clear. See sources cited supra note 232 and accompanying text.

234. Transparency requirements, such as including the real-party-in-interest, have been a large focus of those calling for reform as seen in proposed Congressional bills and President Obama’s legislative recommendations. See, e.g., End Anonymous Patents Act, supra note 158. The concept of transparency could also be extended to requiring PAEs to
alleged and what is the basis for suspecting said infringement), and reasonably (providing targets with reasonable demands for how to respond to an assertion). Transparency, clarity, and reasonableness are not only elements of concern that have consistently shown up in executive, legislative, and state PAE reform attempts, but they are also aspects of consumer protection that the FTC has a long history of enforcing.

There would be several advantages to allowing the FTC to act as the main monitor of PAE assertion methods. First, in focusing on the process of patent assertions rather than the assertions themselves, the FTC would likely sidestep any difficult legal implications of the Supreme Court’s well-understood position that a suit must be “objectively baseless” to constitute a possible antitrust violation. Second, unlike relying on state action, the FTC can institute a nationwide program to target hyper-abusive PAEs, thereby ensuring national uniformity and that no citizen is left unprotected. A third advantage to this approach is that divulge whether or not they are acting as a “hybrid” PAE (i.e. operating under the control of a parent company). See sources cited supra note 39. This would alleviate concerns about PAEs being used to outsource patent assertions so as to avoid the risk of a counter-infringement suit. See generally supra p. 8 and note 40 (describing why the hybrid-PAE model, one that relies on a lack of transparency, is troubling).

Clarity and reasonableness were large themes of Vermont’s consumer protection efforts against MPHJ. See Complaint, supra note 1, at 8–10.

Additionally, it is important to note that these concerns are not exclusive of all others in potential suits. The FTC has broad powers to consider broader anticompetitive abuses of patents as well. A notable example would be the law’s recognition that Section 7 of the Clayton Act can apply to the acquisition of patents. See SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1210 (2d. Cir. 1981). Although courts have thus far been wary of pure antitrust claims in the patent context, they have given some indication that a narrow hypothetical could in the future give rise to antitrust liability. See, e.g., Princo Corp. v. Int’l Trade Comm’n, 616 F.3d 1318, 1331–32 (Fed. Cir. 2010) (holding that competitors horizontally fixing patent licenses did not give rise to a defense of patent misuse in a patent infringement case); but see also Intellectual Ventures LLC v. Capital One Fin. Corp., No. 1:13-cv-00740, 2013 WL 6682981, at *9 (E.D. Va. Dec. 18, 2013) (holding that a violation of section 7 of the Clayton Act would require a showing that patent acquisitions lessened competition by, for instance, concentrating all substitute patents).

See Prof’l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc., 508 U.S. 49, 60 (1993) (holding that litigation must be objectively baseless to be considered sham litigation).

The counter-argument to this might be that if PAEs have unclear effects, why should the problem not be left to the states to experiment with? The problem with this argument is that it focuses too heavily on the overarching problem of the effects of all PAEs. As described above, there is likely to never be consensus on that point. Here, this proposal focuses on curing what is almost assuredly bad, i.e. the abuses and manipulations inherent in PAEs like MPHJ. Varied experimental approaches are less helpful than a national approach that may not only solve the obvious problem, but also will fully target cross-border operations like MPHJ.
section 5 suits would approach the problem of PAE abuse with the nuance it deserves. Insofar as there is any consensus on the theory or effects of PAEs in general, most agree that PAEs such as MPHJ utilize a business model that relies on exploiting the patent system. By pursuing actions against those PAEs on many of the same grounds as Vermont pursued MPHJ, the FTC could ensure that only the worst of the worst PAEs would be brought to court, while non-abusive PAEs would be allowed to carry on their activities for the time being.

This approach would also gracefully avoid the possible pitfall of taking too stringent of a position on PAEs overall and inadvertently deterring positive PAE behavior, or, even worse, deterring non-PAE activity. Targeting PAEs like MPHJ would only represent a judgment that their strategies are a deceptive misuse of the patent legal system that can have negative consequences for consumers, not that all PAE uses of the legal system are unfair and/or negative. Just as crucially, patent law would remain relatively unchanged for the time being. This comports with the historical lesson of past patent crises—that narrowly tailored reform and a conservative but important role for courts is what ultimately brings positive change.

Allowing the FTC the first shot at targeting those most abusive PAEs would take a scalpel to a problem that legislative reform might otherwise fix with a saw. If the scalpel fails, the saw is always an option.

This is not to say that structuring PAE reform around the FTC is foolproof. Courts will have to effectively facilitate FTC suits against PAEs, the FTC will have to operate within resource

239. PAEs such as MPHJ have been referred to as “bottom-feeders” and have received particular scorn from policymakers and commenters. Indeed it was a concern over these type of PAEs that led Sen. Claire McCaskill to introduce the Transparency in Assertion of Patents Act. Jessica Karmasek, McCaskill Introduces Own Legislation Aimed at ‘Bottom-Feeder’ Patent Trolls, LEGAL NEWSLINE (Mar. 6, 2014), http://legalnewsline.com/news/federal-government/247632-mccaskill-introduces-own-legislation-aimed-at-bottom-feeder-patent-trolls.

240. The fact that the FTC has the ability to control which PAEs it would pursue is extremely important. Whereas legislative reform or official rulemaking risks being over-inclusive, FTC discretion should obviate any concerns about PAE targeting leaking into those patent assertions or licensing communications that have valid and non-exploitative explanations. This will not do anything to satisfy those that claim FTC enforcement will be expensive, see Karmasek, supra note 232, but that concern should be limited given that this method of addressing PAEs is narrowly tailored compared to the broader reforms included in many of the various legislative proposals on this topic, see Part III.B. Concerns about cost also ignore the fact that if well-executed, FTC enforcement should deter future PAEs modeled like MPHJ, thereby reducing the need for active FTC enforcement.

constraints,\textsuperscript{242} and the FTC will have to be mindful of the effects of any future legislative patent reforms. There are also those, such as FTC Commissioner Joshua Wright, who would discourage section 5 suits against PAEs because such suits avoid traditional antitrust analysis in favor of conforming the law to condemn a disapproved practice.\textsuperscript{243} This latter apprehension construes the purpose of the FTC too narrowly. The FTC is not just an antitrust agency. Its main purpose is to protect consumers,\textsuperscript{244} and it actively oversees consumer protection problems even where traditional antitrust analysis is not implicated.\textsuperscript{245} Moreover, given that much of the scholarship and empiricism on the topic calls for action,\textsuperscript{246} FTC enforcement should not be contingent on Congressional action or scholarly consensus, neither of which may occur. It is enough that there is demonstrable abuse of the patent system at the expense of small businesses and consumers,\textsuperscript{247} and that the FTC, the main consumer protection agency, can take effective action to curb this abuse.

\textsuperscript{242} See Ramirez, supra note 213, at 7 ("Resource constraints, despite a growing workload, remain a constant challenge.").

\textsuperscript{243} Wright, supra note 215, at 23.

\textsuperscript{244} FED. TRADE COMM’N, supra note 24 (listing the number one strategic goal as to “Protect Consumers: Prevent fraud, deception, and unfair business practices in the marketplace”).


\textsuperscript{246} Carl Shapiro’s framing of the issue of PAEs is particularly instructive as to why action should be taken against PAEs such as MPHJ. He suggests that if the money from patent assertions is not flowing back to the original inventors, PAE activity is not positive for innovation. Shapiro, Presentation, supra note 39, at 32–33. MPHJ’s operation, one that involved sending 16,000 initial demand letters to small businesses, see Joe Mullin, Patent Stunner: Under Attack, Nation’s Most Notorious “Troll” Sues Federal Government, ARSTECHNICA (Jan. 14, 2014), http://arstechnica.com/tech-policy/2014/01/patent-stunner-under-attack-nations-most-notorious-troll-sues-federal-govt/, was aimed at trying to obtain a handful of licenses from businesses without any regard for the exact measure or reasonableness of possible infringement. This operating procedure would appear to express little concern about actually recognizing and protecting the original inventor as much as it does MPHJ’s wish to exploit the patent system and small businesses. As such, there is likely no benefit to innovation from the actions of MPHJ.

\textsuperscript{247} Again, there have been those who have questioned whether PAE activity really harms small business or consumers. See sources cited supra note 232 and accompanying text. This critique misses the point that patent assertions impose costs on businesses (whether they be legal, operating, etc.) that are passed on to consumers. If by no other measure, the costs imposed are obvious from the fact that the business model of MPHJ can be profitable. Even if out of 100,000 demand letters MPHJ only extracts licensing agreements from a small number of consumers and businesses, that money changing hands still represents costs sufficient to justify the FTC’s involvement. This becomes all the more clear when the unfair and deceptive methods used to extract the money are considered.
C. RECENT DEVELOPMENTS

Sensing that FTC intervention would be a credible threat to its business model, MPHJ Technology filed a preemptive lawsuit against the FTC in the Western District of Texas on January 13, 2014, claiming that the FTC could not file suit against them under its section 5 powers.\(^{248}\) MPHJ alleged that the FTC recently threatened them with legal action under section 5 for its practices across the United States.\(^{249}\) MPHJ also argued, among other things, that the FTC did not have jurisdiction,\(^{250}\) that MPHJ’s conduct is fully protected by the First Amendment,\(^{251}\) that the FTC’s pre-suit investigation violated the “Separation of Powers Doctrine” and unconstitutionally interfered with the rights of federal courts under Article III,\(^{252}\) and that the FTC interfered with MPHJ’s constitutional right to counsel.\(^{253}\) MPHJ sought declaratory and injunctive relief with respect to its contentions that it is immune from FTC-initiated litigation, as well as an award of fees and costs.\(^{254}\) This suit was dismissed upon a motion by the FTC on September 16, 2014.\(^{255}\)

Nevertheless, in an exhibit attached to the originally filed complaint, MPHJ disclosed a prepared complaint sent to it by the FTC laying out the FTC’s case.\(^{256}\) The complaint names MPHJ Technology, Jay Mac Rust (the only officer of MPHJ), and Farney Daniels (the law firm acting on MPHJ’s behalf) as defendants.\(^{257}\) The statement of the case in the complaint is as follows:

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\(^{248}\) Joe Mullin, supra note 246.


\(^{250}\) Id. at 31.

\(^{251}\) Id. at 36.

\(^{252}\) Id. at 40.

\(^{253}\) Id. at 45.

\(^{254}\) Id. at 51–54.


\(^{257}\) Id. at 1.
The Defendants have violated Section 5(a) of the Federal Trade Commission Act, 15 U.S.C. § 45(a), through deceptive representations made in letters sent to small businesses located across the country. As part of their campaign to sell licenses for a portfolio of U.S. patents, the Defendants falsely threatened thousands of small businesses with imminent patent infringement litigation when, in truth, the Defendants did not intend to take and did not take such action. In addition, the Defendants falsely represented that substantial numbers of businesses had responded to their letters by purchasing licenses from the Defendants when, at the time of the representations, the Defendants had not sold any licenses to letter recipients.258

This complaint, even if only created as a threat, is a step in the right direction for the FTC. By targeting PAEs like MPHJ, the FTC is well positioned to force change upon the “bottom-feeder” PAEs that are most abusive of the patent system and almost assuredly add no innovation value. This strategy will not only protect consumers and businesses, but will also ensure that future patent reform can be framed without reference to those PAEs that only exploit the patent system. Hopefully the FTC’s complaint is a sign of greater things to come. Indeed, the FTC should embrace its capacity to police these types of PAEs.

V. CONCLUSION

This Note examines the three faces of patent assertion entities: as non-practicing firms profiting from intellectual property, as the subjects of much academic debate over their effect on the economy and innovation, and as the past, current, and future targets of policymakers at the federal and state level. PAEs present a difficult subject for consensus, as numerous factors contribute to their success, multiple narratives exist to describe their impact, and many potential remedies have been proposed. Policymakers have targeted PAEs now as never before. Nine bills sit in Congress on the topic, the President has spoken out and taken action against abusive PAE practices, and state attorneys general have vocally expressed their disdain for PAEs. Within this con-

258. Id. at 3–4.
text, action is needed but political actors face key limitations in providing effective and narrowly tailored solutions.

This Note makes the case that the FTC should be the primary driver of PAE policy in the near future. This would consist of the FTC targeting “bottom-feeder” PAEs that are most abusive of patent assertion processes, utilizing its section 5 powers to punish and deter their activity, and fulfilling its main strategic goal of protecting consumers and businesses. The FTC can approach the problem with a nuance that legislative reform lacks, and can provide for a national uniformity that state action cannot. The FTC can also ensure that the reaction to the PAE problem is narrowly tailored and effective in emphasizing the importance of transparency, clarity and reasonableness in patent assertions. The recently filed MPHJ lawsuit against the FTC is promising on this front, as it indicates the FTC has already considered the application of “unfair and deceptive acts” to the abusive actions of firms like MPHJ. The threatened complaint sent to MPHJ should be only the beginning. The FTC must live up to its role as the primary federal consumer protection agency and enforce section 5 against those firms aiming to both exploit the patent system by harassing and misleading their patent assertion targets.