

# THE AMERICA INVENTS ACT 500: EFFECTS OF PATENT MONETIZATION ENTITIES ON US LITIGATION

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## ABSTRACT

*Any discussion of flaws in the United States patent system inevitably turns to the system's modern villain: non-practicing entities, known more colorfully as patent trolls. For many years, however, discussions about non-practicing entities have been long on speculation and short on data.*

*In 2011 Congress directed the nonpartisan Government Accountability Office to study the effects of non-practicing entities on patent litigation. At the request of the GAO, we collected and coded a set of patent lawsuits filed over the past five years. This article presents our analysis of the data and its implications.*

*The data confirm in a dramatic fashion what many scholars and commentators have suspected: patent monetization entities play a role in a substantial portion of the lawsuits filed today. Based on our sample, lawsuits filed by patent monetizers have increased from 22% of the cases filed five years ago to almost 40% of the cases filed in the most recent year. In addition, of the five parties in the sample who filed the greatest number of lawsuits during the period studied, four were monetizers and only one was an operating company.*

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## INTRODUCTION

Any discussion of flaws in the United States patent system inevitably turns to the system's modern villain: non-practicing entities.<sup>1</sup> They are known more colorfully as patent trolls, although the business model of non-practicing entities has appeared in copyright markets as well as well as in patent markets.<sup>2</sup> These entities have affected a long list of industries, including computer hardware, smartphones, electronics, information technology, pharmaceuticals, construction, manufacturing, hospitality and many more.<sup>3</sup>

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<sup>1</sup> James E. Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes* 3 (Boston Univ. School of Law, Working Paper No. 12-34, 2012), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2091210](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2091210) ("NPEs provide a way for these inventors to earn rents that they might not otherwise realize, thus providing them with greater incentives to innovate."); Christopher A. Cottropia, *The Individual Inventor Motif in the Age of the Patent Troll*, 12 YALE J.L. & TECH. 52, 62 (2009–10) ("[P]atentees who are non-producing and engage in hold-up behavior have been labeled 'patent trolls.'"); Jason Rantanen, *Slaying the Troll: Litigation as an Effective Strategy Against Patent Threats*, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 164 (2006) (describing patent trolls as "acquir[ing] patents for the sole purpose of using them to obtain a revenue stream from a firm that engages in activities arguably falling within the scope of the patent"); Elizabeth D. Ferrill, *Patent Investment Trusts: Let's Build a PIT to Catch the Patent Trolls*, 6 N.C. J.L. & TECH. 367, 367 (2005) (using the definition given by the assistant general counsel for Intel, Peter Detkin: "[S]omebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and in most cases never practiced"); Ronald J. Mann, *Do Patents Facilitate Financing in the Software Industry?*, 83 TEX. L. REV. 961, 1024 (2005) ("Essentially, trolls are serving a function as intermediaries that specialize in litigation to exploit the value of patents that cannot be exploited effectively by those that have originally obtained them. That is not in and of itself a bad thing.").

<sup>2</sup> See James DeBriyn, *Shedding Light on Copyright Trolls: An Analysis of Mass Copyright Litigation in the Age of Statutory Damages*, 19 UCLA ENT. L. REV. 79, 86 (2012) (defining copyright trolls); see also Robin Feldman, *Intellectual Property Wrongs* 42–50 (Aug. 10, 2012) (unpublished manuscript), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2127558](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2127558) (providing examples of copyright trolling).

<sup>3</sup> Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1, 14 (discussing suits by non-practicing entities against many companies including Kodak, Hewlett Packard, Samsung, Facebook, YouTube, LinkedIn, and cable providers); Christopher T. Vroutas et al., *Patent Trolls Who, What, Where & How to Defend Against Them*, 52 N.H. B.J., Autumn 2011, at 40, 41 (2011) (discussing troll activity in the hospitality industry); Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its*

Numerous variations on the theme exist. For example, in recent years we have seen the emergence of patent mass aggregators, who may acquire thousands or even tens of thousands of patents.<sup>4</sup> In some cases, companies that make products have developed their own versions of non-practicing entities, spinning their patent portfolios off into separate entities or transferring selected patents to outside entities that will assert those rights.<sup>5</sup>

For many years, discussions about non-practicing entities have featured ample speculation, but lacked empirical data. Recently, however, a few fascinating studies have presented hard data on non-practicing entities, offering some tantalizing glimpses into their practices as well as their effects on patent litigation and the patent system more broadly. We will discuss these briefly in Part 1 of this article.

Congress waded into the topic of non-practicing entities in the 2011 patent reform act, known as the “America Invents Act.”<sup>6</sup> In the debate leading up to the Act, various members of Congress expressed their displeasure over non-practicing entities. For example, one Congressman railed against individuals who “do not produce anything but lie in wait” to demand money from others.<sup>7</sup> Another complained that patent trolls have “vacuum[ed]” patents by the hundreds or thousands and that their only innovation occurs in the courtroom.<sup>8</sup>

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*Implications for the Patent System*, 62 HASTINGS L.J. 297, 327–332 (2010–2011) (discussing various classes of entities that assert patents in the high tech industry); Mann, *supra* note 1, at 1023–25 (discussing troll activity in the software industry);

<sup>4</sup> Ewing & Feldman, *supra* note 3, at 15–18 (discussing the scope of some mass aggregator activities).

<sup>5</sup> See *id.* at 85–86 (describing creation of the Round Rock aggregator by a transfer of 20% of Micron’s patent assets); Ashby Jones, *Patent “Troll” Tactics Spread*, WALL STREET JOURNAL (July 8, 2012, 8:46 PM), <http://online.wsj.com/article/SB10001424052702303292204577514782932390996.html>.

<sup>6</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

<sup>7</sup> 157 CONG. REC. H4431 (daily ed. June 22, 2011) (statement of Congressman Bob Goodlatte).

<sup>8</sup> 157 CONG. REC. H4486, (daily ed. June 23, 2011) (statement of Congressman Lamar Smith); see also *id.* at 4496 (statement of Congressman Michael Grimm) (arguing that patent trolls have made business-method patents their specialty and have attempted to influence legislation so that they can continue to exploit their low-quality patents).

The America Invents Act contained a provision directly aimed at non-practicing entities. Prior to passage of the Act, some jurisdictions had allowed patent holders to proceed against numerous companies in one action on the grounds that deciding the scope of the patent was a sufficient basis to join the parties, even if their acts of infringement were unrelated.<sup>9</sup> The Act overruled this interpretation, requiring instead that infringement must arise out of the same occurrence or transaction and involve questions of common fact in order to permit joinder.<sup>10</sup> The change was intended to disrupt the non-practicing entity's tactic of joining large numbers of disparately located defendants in one lawsuit and forcing the defendants to litigate in the non-practicing entity's chosen forum.<sup>11</sup>

In another provision of the America Invents Act, Congress directed the nonpartisan Government Accountability Office (GAO) to conduct a study “on the consequences of patent infringement lawsuits brought by non-practicing entities.”<sup>12</sup> At the GAO’s request, the authors provided data on non-practicing entities over a five-year period (2007-2011) using a database from Lex Machina, formerly the Stanford IP Clearinghouse. The GAO requested only the coded data without analysis, and we provided this with the understanding that we would publish our own analysis of the data at a later time. This article presents our analysis. We note that although the cases were compiled at the

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<sup>9</sup> See, e.g., *MyMail, Ltd. v. Am. Online, Inc.*, 223 F.R.D. 455, 456–57; see also Jared Bobrow, *The New World of Patent Litigation Under The America Invents Act*, THE METROPOLITAN CORPORATE COUNSEL, June 2012, at 15 (“Before the enactment . . . some patent owners were filing suits in which they named 20, 30, 40 or even more defendants in the same lawsuit.”).

<sup>10</sup> 35 U.S.C. § 299(b) (2011) (“[A]ccused infringers may not be joined in one action as defendants or counterclaim defendants, or have their actions consolidated for trial, based solely on allegations that they each have infringed the patent or patents in suit.”); 157 CONG. REC. S5429 (daily ed. Sep. 8, 2011) (statement of Sen. Jon Kyl) (“This new section bars joinder of accused infringers as codefendants, or consolidation of their cases for trial, if the only common fact and transaction among the defendants is that they are alleged to have infringed the same patent. This provision effectively codifies current law as it has been applied everywhere outside of the Eastern District of Texas.”) (citing *Rudd v. Lux Prods. Corp.*, 2011 WL 148052 (N.D. Ill. January 12, 2011)).

<sup>11</sup> Tracie L. Bryant, Note, *The America Invents Act: Slaying Trolls, Limiting Joinder*, 25 HARV. J.L. & TECH. 673, 675–76 (2012) (discussing the effects of the AIA’s provision on joinder).

<sup>12</sup> 157 CONG. REC. S5441 (daily ed. September 8, 2011) (statement of Sen. Patrick Leahy).

GAO's request, all conclusions are those of the authors alone and not those of the GAO.

As an initial matter, the authors chose to use the term "patent monetization entity," to describe those entities whose primary focus is deriving income from licensing and litigation, as opposed to making products. We will explain below the way in which we believe our new terminology creates a better definitional grouping than terms employed in the past. In addition to the term "patent monetization entity," we also use the word "monetizer" as a short form.

Chief among the conclusions of the study are the following: First, based on our sample, lawsuits filed by patent monetizers have increased significantly over the five-year period. The sheer number of cases has increased, as well as the percentage of overall case filings represented by monetizers. In other words, lawsuits filed by patent monetizers are on the rise, while lawsuits filed by operating companies have fallen.<sup>13</sup>

Specifically, lawsuits filed by monetizers increased from 22% of the cases filed five years ago to almost 40% of the cases filed in the most recent year. In addition, monetizers were also heavily represented in the list of those who filed the greatest number of lawsuits. Of the 5 parties in the sample who filed the greatest number of lawsuits during the period studied, 4 were monetizers and only one was an operating company.

Of additional note, universities were almost invisible in this dataset, despite sometimes being grouped with non-practicing entities on the theory that they do not make products. Universities accounted for only 0.2% of the first-named plaintiffs who filed lawsuits in our sample. The number rises slightly when second-named plaintiffs are included, but remains quite small.<sup>14</sup>

The data also show that cases filed by patent monetizers were unlikely to advance very far in the trial process and often settled prior to a summary judgment decision. The following sections will detail these and other results of the study.

The data confirm in a dramatic fashion what many scholars and commentators have suspected: Patent monetization entities play a role in

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<sup>13</sup> See *infra* text accompanying notes 43–58.

<sup>14</sup> See *infra* text accompanying note 61.

a substantial portion of the lawsuits filed today. The results are even more striking, given that the study examined only disputes that progressed to the courtroom. From all appearances, lawsuits filed are only the tip of the iceberg, and a major operating company may face hundreds of invitations to license for every lawsuit.<sup>15</sup> Much of the bargaining, posturing, and payment concludes without any party filing suit. Thus, the findings likely understate the true impact of patent monetization entities on the patent system, and on the economy, as a whole.

## I. PRIOR LITERATURE

Although prior literature on patent monetization entities has been largely based on anecdotal evidence and projection, a few studies have illuminated portions of the landscape, and empirical work has increased over time. For example, James Bessen and Michael Meurer published one of the earliest data-based analyses in their 2008 book, *Patent Failure*.<sup>16</sup> Bessen and Meurer defined patent trolls to include only individual inventors who do not commercialize or manufacture their inventions.<sup>17</sup> Thus, the authors did not consider groups, aggregators, or other types of entities. Looking only at individuals, the authors concluded that troll behavior did not have much impact on patent litigation costs.<sup>18</sup>

In 2010, Colleen Chien published a study showing substantially stronger participation by monetizers. Using a broader definition of what constitutes a patent troll, Chien found that the share of all high-tech patent suits brought by non-practicing entities amounted to 20 percent.<sup>19</sup> Both Chien's broader definition of patent troll and her focus on the high-

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<sup>15</sup> See generally ROBIN FELDMAN, *RETHINKING PATENT LAW* 50–74 (2012) (describing bargaining in modern patents).

<sup>16</sup> JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE* 16 (2008) (arguing that outside the pharmaceutical and chemistry industries, the costs of litigating patents outweigh the earnings gained from patents, and the divide between the two is growing). The authors note that the data “understates the extent to which costs exceeded benefits for several reasons: disputes settled before a lawsuit was filed are not counted, nor are foreign disputes; this comparison ignores the costs of obtaining patents and clearance; and for a variety of reasons, the estimates of worldwide patent profits are biased upwards, while the estimates of litigation costs are biased downwards.” *Id.*

<sup>17</sup> *Id.* at 17.

<sup>18</sup> *Id.* at 16–17.

<sup>19</sup> Chien, *supra* note 3, at 334 (discussing the fallacy of defensive patenting).

tech industry may have contributed to the results indicating a greater impact. The difference may also reflect the fact that Chien's data covers years more recent than those in the Bessen and Meurer data.<sup>20</sup> Our own study will show that lawsuits from patent monetizers have been rising at a significant pace in recent years.<sup>21</sup>

Additional studies, a number of them published this year, have cast light on various aspects of patent monetization. For example, Allison, Tiller, Zyontz, and Bligh focused on a comparison of Internet-related patents to non-Internet-related patents.<sup>22</sup> The authors found that in the software industry, Internet-related patents were litigated 7.5 to 9.5 times more frequently than non-Internet patents.<sup>23</sup> The study also noted that once a lawsuit has been filed, the owners of Internet-related patents were more likely to settle before judgment than owners of non-Internet-related patents.<sup>24</sup> Other scholars have focused on the costs that non-practicing entity litigation imposes on the patent system as a whole.<sup>25</sup>

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<sup>20</sup> In particular, Chien studied data after the turn of the millennium while Bessen and Meurer studied data from 1984 to 1999. *Compare id.* at 335, with Bessen & Meurer, *supra* note 16, at Figure 1.1 (2008) (showing aggregate profits from patents and aggregate litigation costs from 1984 to 1999). *See generally* Bessen & Meurer, *supra* note 16, at Figure 1.1.

<sup>21</sup> Patent Freedom, a group providing subscription-based information service on NPEs for large operating companies, also concluded that non-practicing entity litigation has risen in recent years. The group's website displays a graph and a short paragraph description. *See All About NPEs*, PATENTFREEDOM, <https://www.patentfreedom.com/about-npes/litigations/> (last visited Nov. 26, 2012).

<sup>22</sup> John R Allison et al., *Patent Litigation and the Internet*, 2012 Stan. Tech. L. Rev. 1, 6 (2012) (discussing the difference in the rate of litigation between Internet-related patents and non-Internet related patents).

<sup>23</sup> *Id. Cf.* Brian J. Love, *An Empirical Study of Patent Litigation Timing: Could A Patent Term Reduction Decimate Trolls Without Harming Innovators?* 28–29 (Working Paper, 2012) (analyzing 100,000 patents issued from 1993 to 1994 and concluding that NPEs file more than twice as many suits per patent, assert each patent against more than four times as many alleged infringers, and on average assert patents closer to the expiration of the patent than product companies).

<sup>24</sup> Allison et al., *supra* note 23, at 6.

<sup>25</sup> *See generally* Bessen & Meurer, *supra* note 2. The Bessen Meurer study itself is based on a database developed by RPX, a patent aggregator, as well as a small survey the aggregator conducted of entities with which it has a relationship. *Id.* at 7. *See also* James Bessen, Jennifer Ford & Michael J. Meurer, *The Private and Social Costs of Patent Trolls* 2 (Boston Univ. School of Law, Working Paper No. 11-45, 2011) (“[T]he loss of billions of dollars associated with [NPE] lawsuits harms society.”); *cf.* David L. Schwartz & Jay P. Kesan, *Analyzing the*

## II. THE AIA 500: METHODOLOGY AND DESIGN

The patent reform legislation known as the America Invents Act was signed into law in September 2011. The Act directs the Government Accountability Office, the nonpartisan investigative arm of Congress, to conduct a study on the consequences of patent infringement lawsuits brought by non-practicing entities.<sup>26</sup> To support its investigation, the Government Accountability Office requested that Lex Machina provide data on non-practicing entities for the five years between 2007 and 2011. Lex Machina co-authors Sara Jeruss and Joshua Walker joined Professor Robin Feldman of UC Hastings Law to collect and analyze the data.

The GAO requested that we produce a random sample consisting of 100 of the patent infringement cases filed each year for a period of five years. We were asked to code the 500 cases to establish the types of entities involved in each of the lawsuits, as well as to examine additional details of the suits. The Agency requested that we deliver the coded data to them without analysis, and we provided the data with the understanding that we would publish our own analysis at a later time. We note that we were able to find sufficient information to classify 99 percent of the parties who filed infringement lawsuits in our sample.

The 500 cases were randomly selected from the Lex Machina database. Lex Machina is a spin-off of the Stanford IP Litigation Clearinghouse, which comprehensively mapped material patent litigation

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*Role of Non-Practicing Entities in the Patent System* 3 (Chicago-Kent Coll. of Law Legal Studies Research Paper No. 2012-13, 2012), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2117421](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2117421) (arguing that the \$29 billion estimate “of the direct cost of NPE patent assertions should be viewed as the highest possible limit”); John R. Allison, Mark A. Lemley & Joshua Walker, *Patent Quality and Settlement Among Repeat Patent Litigants*, 99 GEO. L.J. 677, 687 (2010) (finding that “most-litigated patent plaintiffs won only 10.7% of their cases, compared with 26% across all lawsuits and 47.3% in the once-litigated set”). Also, Allison, Lemley and Walker showed that product producers were responsible for 79.2% of once litigated patent suits, but 36.5% of the most litigated patents. *Id.* at 692. Finally, Allison, Lemley and Walker found that software patents accounted for 93.7% of assertions of the most litigated patents, *id.* at 696, and performed regression analysis to demonstrate an inverse relationship between the number of defendants and the likelihood of settlement. *Id.* at 699.

<sup>26</sup> Leahy-Smith America Invents Act, Pub. L. No. 112-29, §34, 125 Stat. 284 (2011).

events and outcomes.<sup>27</sup> Lex Machina continues this project by crawling the web each day and extracting data and documents from PACER (the administrative database of the United States federal courts), all 94 United States District Court websites, the International Trade Commission's EDIS website, and the Patent & Trademark Office's website.

To ensure that we would have 500 cases and be able to exclude cases that did not meet our criteria, we used the Lex Machina database to compile a randomly sampled set of 150-200 cases per year for 2007-2011, and then excluded cases until we were left with a usable set of 100 per year, for a total of 500 cases. Given our focus on patent holders who file infringement cases, we chose to exclude declaratory judgment cases. Declaratory judgment cases are filed by parties who have sufficient reason to believe they will be sued for patent infringement and therefore file an anticipatory suit to challenge the validity of the patent with which they are being threatened.

We also excluded cases where information about the asserted patents was not available electronically. Although PACER has improved dramatically over the past few years, it does not have complaints for some cases from the earlier years in our sample. To deal with this problem, we excluded these cases and focused instead on randomly sampled cases that do have records available on PACER. These cases represent a small subset of the sample, primarily from 2007.<sup>28</sup>

We then classified the parties who filed the infringement lawsuits in our sample. The data analysis focuses on the first person named in the record as filing the infringement claim, although we classified all of the parties filing. We chose to focus only on the first named plaintiff because we rarely found one type of entity filing suit jointly with entities of another type. Including secondary plaintiffs under these circumstances would have skewed the data. For example, large corporations often have several subsidiaries and affiliated entities that are included as plaintiffs—Takeda Pharmaceuticals might file a complaint as Takeda Pharmaceuticals Limited, Takeda Pharmaceuticals North America, Takeda Pharmaceuticals LLC, and Takeda Pharmaceuticals

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<sup>27</sup> For additional information on Lex Machina and its database, see LEX MACHINA, <https://lexmachina.com/about/> (last visited Oct. 13, 2012).

<sup>28</sup> Excluding this subset does not influence the study, as cases from 2007 without complaints occurred randomly (i.e. there is no systematic reason why all such PACER cases lack an electronically available complaint). In addition, we applied this exclusion uniformly and were left with 100 randomly sampled, representative cases for each year.

America, Inc. Similarly, we saw several cases of pharmaceutical corporations joining together for ANDA cases, including AstraZenica Pharmaceuticals, IPR Pharmaceuticals Inc., and Shionogi Seiyaku Kabushiki Kaisha Corp. In contrast, most of the monetizers we saw were lone entities. Including secondary named plaintiffs would thus have overrepresented operating companies in the sample. We did encounter a few cases in which an individual sued along with the individual's company, which were classified as "individual or trust." We were satisfied with that classification, given that these cases generally involved shell companies that appeared to have been formed by the inventor for the purposes of monetization.

Using court filings, SEC filings, company websites, and other publicly available information, we assigned each of the parties filing the cases to one of the nine types described in the paragraphs below. We also identified the venue for each case, the defendants' primary industry, the outcome, and other information for each case. As noted above, we were able to track down sufficient evidence to classify the parties for 99 percent of the cases in our sample.

#### A. What's in a Name?

There has been considerable variation among the terms used in the "patent troll" literature and debate, as well as the definition of those terms. More neutral than the word "troll," the term "non-practicing entity" has been used to refer generally to those who do not manufacture a product. The patent world, which has its own code-like lingo,<sup>29</sup> would say that these parties do not actually "practice" the patent that they own.

There also has been considerable disagreement about the type of entity to include in the category of "non-practicing entity." For example, many commentators have noted that universities generally do not commercialize the inventions developed in their labs. Technically, this makes them non-practicing entities. Should we put universities in the same basket as garden-variety trolls? "Non-practicing entity" is also a somewhat awkward term to use when referring to an individual who uses a patent to create a monetary stream, rather than making a product. How can one refer to an individual as an "entity"?

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<sup>29</sup> See Robin Feldman, *Plain Language Patents*, 17 TEX. INTELL. PROP. L.J. 289, 292 (describing the arcane code in which patents are written) (2009).

For an additional problem with classifying entities, consider the patent aggregator RPX. RPX buys patents, creates licenses for its members, and then transfers these patents to third parties, subject to the licenses. In other words, the third parties who buy RPX's patents are free to assert the patents against anyone other than the RPX members.

The RPX model includes buying patents from troublesome trolls on behalf of its members or for the benefit of its members. On its website, the company describes its business as helping corporations manage their exposure to patent litigation through activities that include defensive buying and acquisition syndication.<sup>30</sup> The company also pledges that it will never assert or litigate the patents in its portfolio.<sup>31</sup> In other words, the company markets itself as a troll solution.

How should one characterize an aggregator such as RPX? Does it matter that the company does not commercialize any of the patents that pass through its hands?

The RPX configuration also highlights difficulties with a term that the Federal Trade Commission (FTC) introduced in a report last year—"patent assertion entity" or "PAE" for short. The FTC described a PAE as having a business model focused on "purchasing and asserting patents against manufacturers already using the technology, rather than developing and transferring the technology."<sup>32</sup> It is unclear from the report what the FTC means when it refers to those "transferring the technology."

This highlights a problem that the FTC is likely to encounter in choosing a term that focuses only on "patent assertion." The patent market today is characterized by complex and convoluted strategic games.<sup>33</sup> In these multi-dimensional battles, entities sometimes use third-party actors to accomplish their ends.<sup>34</sup> Thus, in this environment, one

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<sup>30</sup> RPX, <http://www.rpxcorp.com> (last visited Oct. 13, 2012).

<sup>31</sup> *Id.*

<sup>32</sup> FED. TRADE COMM'N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION 8 (2011), available at [www.ftc.gov/os/2011/03/110307patentreport.pdf](http://www.ftc.gov/os/2011/03/110307patentreport.pdf) [hereinafter *Evolving IP Marketplace*].

<sup>33</sup> See generally FELDMAN, *supra* note 16, at 40–74 (describing a number of examples in which patent holders bargain with other parties to determine the boundaries of their rights post-grant).

<sup>34</sup> See Ewing & Feldman, *supra* note 3, at 3 (describing "mass aggregators" of patents); Tom Ewing, *Indirect Exploitation of Intellectual Property Rights by*

cannot consider only whether a party directly asserts patents. In other words, parties who do not assert patents against manufacturers, but make money by transferring patents to others who assert the patents against manufacturers, may create the same market distortions as those who simply assert the patents directly.

In a recent work, Ewing and Feldman describe changes in the modern patent field as having created a market for patent monetization.<sup>35</sup> We believe that the term “patent monetization” captures the behavior that many of the terms and categories above try to articulate. In essence, the term should capture various formations in which patent rights are separated from any product that would reflect the rights, and are sold, traded, grouped, regrouped, licensed, or repurposed, all for generating an income stream from the rights themselves. In all such efforts to monetize patent rights, the patent holder’s behavior is distinct from the behavior involved in creating products and services based on the innovation covered by the patent.

Many entities engage in a combination of activities. Companies that everyone would agree are in the business of producing products may also generate revenue by licensing some of their technology to others. For example, evidence in the highly publicized lawsuit between Apple and Samsung over their smartphone and tablet technologies demonstrates that both parties granted licenses to others at times for the use of their technology.<sup>36</sup> This may occur as a result of an industry-wide effort to establish standards, a friendly cross-licensing deal, a litigation cease-fire, or simply an effort to generate additional revenue. Nevertheless, the primary activities of Apple and Samsung remain product creation.

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*Corporations and Investors*, 4 Hastings Sci. & Tech. L.J. 1, (2012) (describing the emergence of privateering behavior in modern patent markets, in which a sponsor induces a third party to assert patent rights in a way that benefits the sponsor without exposing the sponsor to cost and risk).

<sup>35</sup> See generally Ewing & Feldman, *supra* note 4 (describing the emergence of a market for patent monetization and its potential positive and negative effects); see also Feldman, *supra* note 3, at 17–20 (describing and defining intellectual property monetization).

<sup>36</sup> Dan Levine & Edwin Chan, *Apple Expert Shines Light on Samsung Sales in U.S.*, REUTERS (Aug. 13, 2012, 6:28 PM), <http://www.reuters.com/article/2012/08/13/us-apple-samsung-idUSBRE87C0SC20120813> (noting that Apple licensed design patents to Microsoft and reached out to Samsung hoping to license its patents to Samsung as well); Charles Arthur & George Sandeman, *Apple-Samsung Patent Trial: A Guide to the Key Issues*, THE GUARDIAN (Aug. 23, 2012, 5:20 AM), <http://www.guardian.co.uk/technology/2012/aug/22/apple-samsung-patent-dispute> (noting that Intel licensed patents from Samsung).

In the modern patent market, however, one sees the emergence of numerous entities whose core activity is creation of an income stream from the patent market itself. These entities are developing in new and unusual ways—a reminder that any term describing such entities must be sufficiently flexible and broad.

For example, if a computer manufacturer were to spin part of its patent portfolio off into a separate entity—one that is charged with developing licensing for those rights—the spin-off should be classified as a patent monetization entity. The manufacturer itself, of course, would remain an entity whose primary activity involves the creation of products.

In short, although no linguistic representation can be perfect, we believe that the term “patent monetization entity” best captures the phenomenon developing in the modern patent market. We also use the word “monetizer” as a short form, or as a form more appropriate for individuals. The short form has the added virtue of clarity, as opposed to the confusing jumble of letters that seems to plague these discussions, such as PAE and NPE.

For the opposite designation, we chose to keep the term “operating company” to indicate an entity that uses its patented inventions to provide a product or service. The term has its own flaws. For example, there are numerous patent monetization entities that are “operating” in the plain sense of the word. Consider Acacia, a patent aggregator with a market capitalization of \$1.42 billion, whose shares are publicly traded on the NASDAQ stock exchange.<sup>37</sup> It seems to be “operating” just fine.

Despite this problem, the term “operating company” has become the generally used short form for companies utilizing their patents to provide products or services. We must confess that we have nothing better to suggest at the moment.

Finally, we chose to track universities as their own category, separate from patent monetization entities. Although universities do not manufacture products, their core activity involves education and academic research, rather than monetization of rights. As a result, we

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<sup>37</sup> *Investment Profile*, ACACIA RESEARCH CORPORATION, (Sept. 2012), available at <http://acaciatechnologies.com/docs/AcaciaFactSheet2ndqtr2012.pdf>.

classify them separately and suggest that more research would be helpful in understanding their role in patent markets.

With the various terms defined as above, we classified the cases according to one of the following nine categories:

- *Operating Company*: An entity was classified as an operating company if the company was described as such on the entity's website or in verifiable documents such as court filings and SEC filings. Entities also were classified as operating companies if they described their main source of revenue as selling a product or providing a service unrelated to patent monetization.
- *Patent Monetization Entity*: An entity was classified as a patent monetization entity if the company was described as such on the entity's website or in verifiable documents such as court filings and SEC filings. Entities also were classified as patent monetization entities if they described their main source of revenue as patent litigation or licensing, or if they were a subsidiary of a known patent-monetization entity such as Acacia.
- *Suspected Operating Company*: This category was used when evidence existed that the entity fit into the operating company category, but that evidence was not verifiable. For example, an entity described by a publication like *Bloomberg BusinessWeek* as selling a product would be categorized as a suspected operating company. As a specific example, we coded FFP LLC as a suspected operating company based on a statement in *Bloomberg BusinessWeek* indicating that FFP is “doing business as Matrix Health Group, operates as a specialty pharmacy that provides medications and supplies to children and women with hemophilia,

von willebrand, and other bleeding disorders in the United States.”<sup>38</sup>

- *Suspected Patent Monetization Entity:* We used this category when there was evidence to assign an entity to the patent monetization category, but that evidence was not verifiable. For example, an entity with no known operating activities and that a patent law blog describes as a “patent troll,” would be categorized as a suspected patent monetization entity. For example, we coded Purple Leaf LLC based on two articles calling Purple Leaf a “patent troll.”<sup>39</sup>
- *Linked to Operating Company:* We used this category for entities known to be related to operating companies (e.g. subsidiaries of major corporations), but for which we could not determine a specific role within the corporation. We did not designate a category for “linked to patent monetization entities,” because the only patent monetization subsidiaries we found were easily classified as patent monetization entities themselves.
- *Individual or Trust:* This category consisted of individuals or entities organized as a trust. Based on the results from our sample, individuals and trusts appear to function more like monetizers than operating companies. For example, the Sorensen Research and Development Trust Fund filed more patent infringement cases than any other entity in our sample. Although it is a trust rather than a corporation, Sorensen appears to make most of its money through patent monetization. Similarly, many

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<sup>38</sup> *Company Overview of FFP, LLC*, BLOOMBERG BUSINESS WEEK, <http://investing.businessweek.com/research/stocks/private/snapshot.asp?privcapId=6657799> (last visited Nov. 10, 2012).

<sup>39</sup> Abe Sauer, *NPR Exposes Patent-Trolling, But Will Reforms Result?*, BRAND CHANNEL (July 28, 2011, 12:00 PM), <http://www.brandchannel.com/home/post/2011/07/28/NPR-Exposes-Patent-Trolling-But-will-Reforms-Result.aspx>; Leena Rao, *Patent Troll Sues Amazon Over Electronic Checkout Service*, TECHCRUNCH (July 26, 2011) <http://techcrunch.com/2011/07/26/patent-troll-sues-amazon-over-electronic-checkout-service/>.

of the individuals in our sample appeared to be inventors who had tried to operate companies and, when this failed, switched to litigation as a way of monetizing their patents.

- *University:* We used a separate code because universities appear fundamentally different from either operating companies or monetization entities. Given that only one of our first named plaintiffs was a university, more research is needed to determine whether there are any patterns in how universities litigate patent cases, or in how they behave short of litigation.
- *Other:* If an entity did not fit into any of the above categories, it was classified as “Other.” These included entities with mixed patent monetization and operating company activities (e.g. operating two subsidiaries, one that focuses on selling a product and another that focuses exclusively on monetizing patents other than those related to the product). This category applied in only 8 of the 500 cases.
- *Insufficient Evidence:* If there was absolutely no information about an entity, we classified it as insufficient evidence. In the end, we were able to classify 99% of our cases, leaving only seven with insufficient evidence.

## B. Case Outcomes

We categorized the outcomes of our sample set in one the following groups:

- *A Likely Settlement:* We categorized cases as likely to have been settlements if the case was dismissed at the parties' request pursuant to Rule 41 of the Federal Rules of Civil Procedure. This includes cases in which the party who claimed patent infringement voluntarily dismissed the case before the defendant filed an answer. It also includes stipulated dismissals, in which both parties agree that the judge should dismiss the complaint without entering a judgment of fault, often because they have entered into a confidential settlement agreement.

We excluded cases in which there was a determinative outcome in the case prior to a settlement. For example, we excluded cases in which there had been a trial verdict prior to settlement or in which prior to settlement, there had been a summary judgment finding that the defendant had not infringed the patent. We also excluded cases that were dismissed for procedural reasons, such as cases dismissed under Rule 12 of the Federal Rules of Civil Procedure, which covers defenses such as the lack of jurisdiction and failure to state a claim.

- *A Procedural Disposition:* This category included cases dismissed for procedural reasons, such as those dismissed pursuant to Rule 12 of the Federal Rules of Civil Procedure, which covers defenses such as the lack of jurisdiction and failure to state a claim.
- *The Claimant Wins:* This category denotes cases in which the party filing the infringement claim has won, including consent judgments in favor of the party filing the claim. In a consent judgment, the judge enters a decision in favor of one party or the other that is binding on both parties, with the consent of both parties. For example, the parties may choose to consent to a particular decision after claim construction if the judge's construction essentially destroys one side's case. When a party sees that a loss is likely given the judge's construction of the claim, it may be in that party's interest to move straight to a final judgment, which then can be appealed to the Federal Circuit. (An appeal to the Federal Circuit cannot take place until the trial court has entered a final judgment.)<sup>40</sup>
- *Claimant Loses:* This category denotes cases in which the party defending against the claim of infringement has won, including consent judgments in favor of the defendant. As described above, in a

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<sup>40</sup> See generally James E. Pfander and David R. Pekarek Krohn, *Interlocutory Review by Agreement of the Parties: A Preliminary Analysis*, 105 NW. U. L. R. 1043 (2011) (providing a general discussion of Federal Circuit jurisdiction over final judgments).

consent judgment, the judge enters a decision in favor of one party or the other that is binding on both parties, but with the consent of both parties.

- *Ongoing Cases:* This category consists of cases that are continuing as of the time of the study, including cases that have been stayed.
- *Cases Transferred, Severed, or Consolidated:* This category denotes cases that were transferred out of the district in which they were originally filed, as well as cases severed or consolidated. For all of these cases, we also categorized the final outcome of the case after transfer, severance or consolidation. We avoided double counting by excluding cases if they appeared in our sample as the result of a transfer, rather than an initial filing.

### C. Limitations

We note that the GAO requested a sample size of only 100 cases a year and a total of 500 cases across five years. While the GAO's statistician determined that such a sample size would be representative, with an error rate of 9 percent, the sample remains much smaller than we would ideally prefer. Thus, we temper our results with the caution appropriate for the sample size. Other limitations exist, such as the exclusion of cases for which the electronically available information is insufficient.

We also note that our study did not include cases filed as declaratory judgments. Declaratory judgment cases arise when a party, threatened with a claim of patent infringement, files an anticipatory suit to challenge the validity of the patent with which it is threatened. Our study focused on plaintiffs claiming that their patents have been infringed, and declaratory judgment plaintiffs do not allege patent infringement.

This leads to what we consider the greatest limitation in a study of this kind—focusing on lawsuits that are actually filed likely misses much of the action in patent monetization. Based on anecdotal evidence—albeit a mountain of such anecdotes—a vast amount of monetization activity never progresses to the point at which the patent

holder actually files an infringement lawsuit.<sup>41</sup> Given the costs of litigating infringement suits, the uncertainty of the outcome, and the potential for outsized judgment awards, companies frequently capitulate to a patent monetizer's demands, rather than face the ordeal of a trial.<sup>42</sup> Thus, a study that focuses only on lawsuits filed misses much of the dance.<sup>43</sup>

Another limitation results from focusing mainly on entities filing lawsuits, rather than focusing on defendants in the lawsuits. As a result of this approach, our case outcome is based on the last recorded outcome in the case, and does not account for different outcomes obtained by different defendants. Where there were multiple defendants and one defendant settled while another went to trial, the case is likely to be coded as a trial outcome, rather than a settlement. Thus, the number of settlements may be slightly understated in the results.

### III. THE AIA 500: RESULTS

As described above, we analyzed a random sample of 100 of the patent cases filed each year from 2007 through 2011, for a total of 500 cases. The data show a strong increase in the number of cases filed by patent monetizers across this period. Although there are a variety of ways

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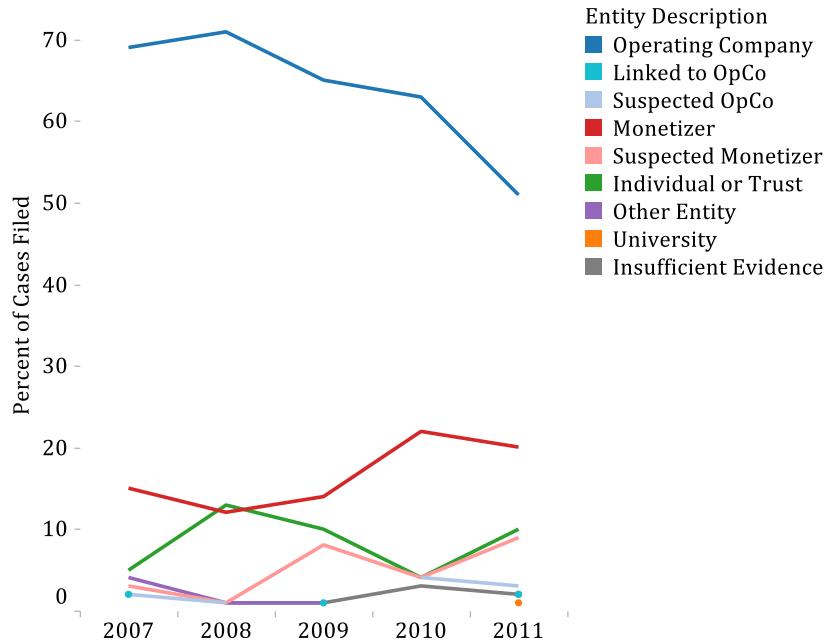
<sup>41</sup> See FELDMAN, *supra* note 16, at 50–74 (describing bargaining outside lawsuits in the modern patent system to resolve uncertainties surrounding the boundaries of patent rights); Ewing & Feldman, *supra* note 3, at 23–25 (describing why it is economically rational for manufacturing companies to capitulate to a monetizer's demands rather than to fight, even if the patents underlying the demands are weak). *See also id.* at 15, 60, 70 (describing the mass aggregator Intellectual Ventures, which has earned \$2 billion in licensing revenue since its inception in 2000 but did not file any lawsuits until 2010; the entity does appear in some cases to have transferred patents to third parties, who then filed lawsuits).

<sup>42</sup> See Feldman, *supra* note 2, at 11 (describing the way in which the combined effects of 1) the uncertainty surrounding the boundary of patent rights, 2) the lack of a quick and inexpensive way to resolve such uncertainty, and 3) the possibility of facing outsized damage awards and injunction against entire products, patent holders are able to bargain for returns well beyond the value of their patents).

<sup>43</sup> Cf. FELDMAN, *supra* note 16, at 56–65 (explaining the “dance of the sugarplum letter,” in which patent holders try to signal their intent to enforce their patent rights against someone without triggering enough of an actual case or controversy that the target can file a lawsuit to declare the patent holder’s patent invalid).

one could group the categories that we identified to reach final results, all of the approaches demonstrate a strong increase.

In particular, our data classified those who filed a patent infringement lawsuit into one of 9 categories. The rise in lawsuits filed by patent monetizers is evident, even with this highly stratified grouping. Looking at the data with all 9 categories graphed separately, the red line for cases filed by patent monetization entities rises while the blue line for cases filed by operating companies drops off sharply.



In fact, patent monetization entities filed only 14 percent of the cases in 2007, the first year of our sample. Three years later, patent monetization entities filed 22 percent of the patent infringement lawsuits, ending the survey the following year having filed 20 percent of the examined lawsuits.

In order to properly understand the data, however, it is best to aggregate some of the categories. For example, we set an extremely high bar for classifying entities as either operating companies or patent monetization entities by requiring either an entity's self-classification or a statement in a verifiable court record. However, even with those classified as suspected patent monetization entities or suspected

operating companies, we still found ample secondary evidence of their proper categorization.<sup>44</sup> As a result, we believe that operating companies and patent monetization entities should be aggregated with their suspected counterparts.

In addition, our study suggests that individuals and trusts frequently behave like patent monetizers.<sup>45</sup> This should come as no surprise. Modern patent trolling began with small entities and individuals asserting patents against larger companies that provide products or services.<sup>46</sup> In short, parties that we designated as confirmed patent monetization entities are cut from the same cloth as individuals or trusts asserting patent rights, and we concluded that they should be grouped together for this analysis.

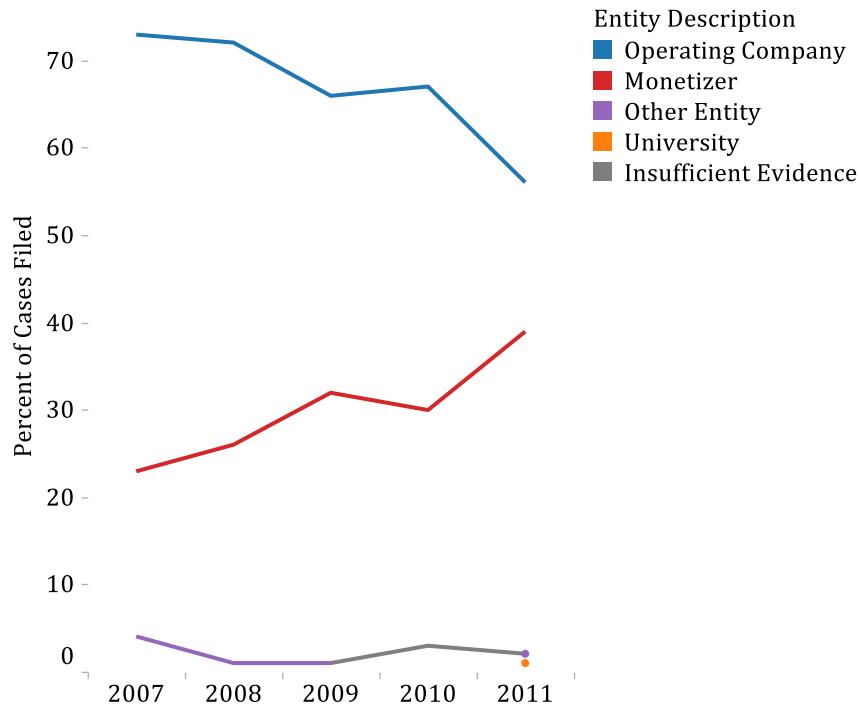
In short, we believe that the most appropriate grouping would be to combine confirmed patent monetization entities with suspected monetization entities and individuals/trusts. Looking at this group, the number of lawsuits filed by monetizers as a whole increases greatly, both in absolute terms and as a percentage of all patent infringement cases. Specifically, lawsuits filed by monetizers rose from 22 percent in 2007 to almost 40 percent in 2011. This is a remarkably high level, and it offers an indication of the extent of monetization activity in the litigation system. The graph below demonstrates the data aggregating the three monetizer categories in percentage terms. In addition, Appendix A contains a chart that provides the year-by-year numbers.

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<sup>44</sup> See *supra* notes 38–39 and accompanying text.

<sup>45</sup> See *supra* Part II.A (describing the behavior of individuals and trusts in the sample).

<sup>46</sup> See Robert P. Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1583, 1595–96 (2009) (discussing George Selden’s turn of the twentieth century suit against automobile manufacturers and Genetics Institute’s 1980s suit against Amgen); See also Jeffrey D. Sullivan, *Vanquishing the Patent Trolls*, NEWSXCHANGE, 6 (April/May 2005) <http://www.bakerbotts.com/files/Publication/46c75843-6976-45d4-982f-2e4f4c217a03/Presentation/PublicationAttachment/8c0532c0-b1b0-4b7b-bd1b-36683a5ecd90/LESBI%20April%202005.pdf> (observing that “a cottage industry has sprung up wherein opportunistic individuals form holding companies for the principal purpose of acquiring, and asserting, broadly (if vaguely) worded patents against entire industries, with the goal of extracting license fees from multiple defendants”); Donald D. Chisum, *Reforming Patent Law Reform*, 4 J. MARSHALL REV. INTELL. PROP. L. 336, 340 (2005) (noting recent concerns with patent trolls, defined as individuals, small companies or investment groups who obtain patents and do not produce anything using the patent).



In understanding the data, however, we wanted to make certain that the changes in the joinder rules were not distorting our results. As mentioned above, the recently passed America Invents Act changed the joinder rules to make it more difficult for those filing patent lawsuits to include multiple defendants in the same suit and in the patent filer's preferred jurisdiction.<sup>47</sup> The change was aimed particularly at monetizers who had been frequenting the Eastern District of Texas, among others, with lawsuits involving multiple defendants.<sup>48</sup>

Prior to the passage of the America Invents Act, many courts would not allow patent holders to join infringers in a single case if the only common fact or transaction among the defendants was that the defendants were all alleged to have infringed the same patent.<sup>49</sup> However, a small number of courts, most notably the Eastern District of

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<sup>47</sup> America Invents Act, 35 U.S.C. § 299 (2011).

<sup>48</sup> See *supra* notes 11–12 and accompanying text.

<sup>49</sup> See *Rudd v. Lux Prods. Corp.*, No. 09-cv-6957, 2011 WL 148052, at \*3 (N.D. Ill. Jan. 12, 2011) (noting that numerous states have adopted the approach that “a party fails to satisfy Rule 20(a)’s requirement of a common transaction or occurrence where unrelated defendants, based on different acts, are alleged to have infringed the same patent.”).

Texas,<sup>50</sup> had ruled that the question of a particular patent's scope was sufficient to join the parties together in one lawsuit.<sup>51</sup> As a result, by filing suit in the Eastern District of Texas, patent holders could bring suit against each alleged patent infringer in one action. Patent holders responded to the ruling by suing as many as 20, 30, or 40 patent holders in a single swoop.<sup>52</sup> The rule allowed monetizers to reduce their litigation costs and made it more difficult to transfer the case to a forum convenient for a particular defendant.<sup>53</sup> The rulings also enabled monetizers to file and keep their cases in the Eastern District of Texas, whose particular procedural rules for patent cases and generous juries had created an environment hospitable to patent monetizers.<sup>54</sup>

The America Invents Act resolved this split in the case law by establishing that, with the exception of cases related to encouraging the creation of generic pharmaceuticals under the Hatch-Waxman Act, joinder is proper only if the alleged infringement arose out of the same occurrence or transaction and involves questions of common fact that will arise in the action.<sup>55</sup> In articulating these requirements, Congress specifically rejected the interpretation of the Eastern District of Texas.<sup>56</sup>

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<sup>50</sup> H.R. Rep. No. 112-98, at 55 n.61 (2011), reprinted in 2011 U.S.C.C.A.N. 67, 85 n.61 (citing *Better Educ. Inc. v. Einstruction Corp.*, No. 2-08-cv-446-TJW-CE, 2010 WL 918307 (E.D. Tex. Mar. 10, 2010); *Mannatech, Inc. v. Country Life, LLC*, No. 3:10-CV-533-O, 2010 WL 2944574 (N.D. Tex. July 26, 2010); *Alford Safety Servs., Inc., v. Hot-Hed, Inc.*, No. 10-1319, 2010 WL 3418233 (E.D. La. Aug. 24, 2010); *Eolas Techs., Inc. v. Adobe Sys., Inc.*, 2010 WL 3835762, (E.D. Tex. Sept. 28, 2010); *Adrain v. Genetec Inc.*, No. 2:08-CV-423, 2009 WL 3063414 (E.D. Tex. Sept. 22, 2009); *Sprint Commc'ns Co. v. Theglobe.com, Inc.*, 233 F.R.D. 615 (D. Kan. 2006); *Mymail, Ltd. v. Am. Online, Inc.*, 223 F.R.D. 455 (E.D. Tex. 2004)).

<sup>51</sup> See e.g., *Mymail*, 223 F.R.D. at 456–57 (holding that alleging infringement of the same patent was sufficient to join the defendants under Rule 20(a) of the Federal Rules of Civil Procedure).

<sup>52</sup> See *supra* note 10.

<sup>53</sup> Bryant, *supra* note 12, at 688–689.

<sup>54</sup> Mark Liang, *The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities*, 19 TEX. INTELL. PROP. L.J. 29, 43 (2010) (discussing the Eastern District of Texas's attractiveness as a forum for patent suits due to the adoption of rules that “included accelerated timelines, broader discovery requirements, and severe sanctions for non-compliance”).

<sup>55</sup> See America Invents Act, 35 U.S.C. § 299(b) (2011) (“accused infringers may not be joined in one action as defendants or counterclaim defendants, or have their actions consolidated for trial, based solely on allegations that they each have infringed the patent or patents in suit”).

<sup>56</sup> See *supra* note 11 and accompanying text.

As a result, for cases filed after the Act became law on Sept. 16, 2011, infringement suits could become more difficult and expensive for patent monetization entities.<sup>57</sup>

Although the America Invents Act, in theory, should make it more difficult to file infringement suits, anecdotal evidence suggests that the new joinder rules have not yielded the intended results. Some practitioners have suggested that patent monetization entities are getting around the new joinder rules by filing a series of separate cases against different parties and then moving to consolidate the cases.

We wanted to ensure that changes in the joinder rules were not distorting our data. If monetizers could not join as many defendants together in a single lawsuit, one could speculate that the number of lawsuits might rise simply because monetizers were now suing each defendant in a different lawsuit. For example, before the new joinder rules, a patent holder could file one lawsuit against 40 companies. Afterwards, the patent holder might need to file 40 separate lawsuits. Thus, if only lawsuits are counted, then there is the potential to misattribute the cause for the upward trend.

We compensated for this possible effect by counting the number of patent assertions, that is, the number of defendants sued. Our data show that the number of defendants sued by patent monetization entities has also increased. This suggests that the rise in suits filed during 2011 did not result from the new joinder rules. We also note that the 2011 increases in both the number of cases and defendants followed the general trend of increases across the 5 years.<sup>58</sup>

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<sup>57</sup> Carl Charneski, *Impact of the AIA on Patent Litigation: Changes That May Affect Your Choice of Forum*, 4 LANDSLIDE (May/June 2012), available at [http://www.brinkshofer.com/files/article\\_landslide\\_mayjune\\_2012\\_charneski.pdf](http://www.brinkshofer.com/files/article_landslide_mayjune_2012_charneski.pdf).

<sup>58</sup> We note that the data show a drop in the number of patent defendants sued in 2010, due to a decrease in the number of suits filed by individuals and trusts. The transitory drop may be due to the small size of our sample, or to other causes that we have not identified.

Overall Number of Defendants in Lawsuits Filed, By Plaintiff Entity and Year

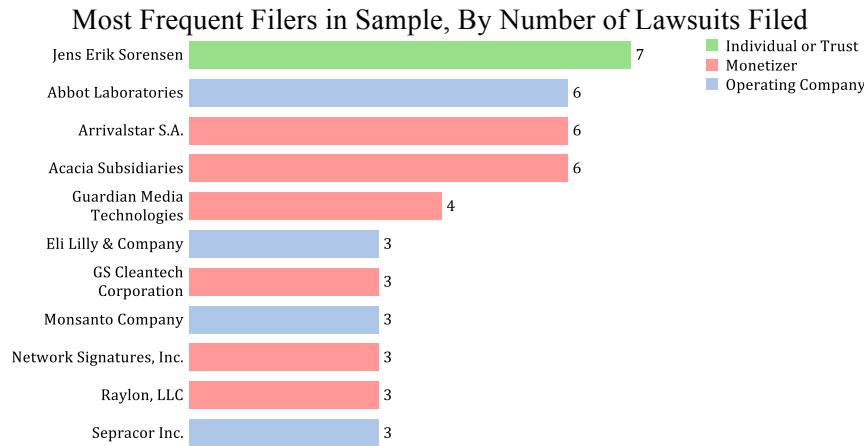
Year	Operating Company	Monetizer	Individual or Trust	Other Entity	Insufficient Evidence	University
2007	108	37	10	7		
2008	163	38	32	2	6	
2009	116	86	35	1	1	
2010	134	145	12		6	
2011	107	109	55	4	2	1

Some anecdotal evidence also suggests that monetization entities may have rushed to file infringement cases before the America Invents Act was signed into law. This could have had the effect of temporarily increasing the number of monetization lawsuits in the months leading up to passage of the Act and decreasing the number of monetization lawsuits afterwards. Any such activity, most likely, would have focused on filings to avoid the changes in joinder rules, an issue we addressed as described above. It is possible, however, that other anticipatory filing could have occurred, followed by a subsequent drop. Our data was not sufficiently grained to detect a rise occurring in the months before the Act came into effect in September of 2011 followed by a drop in the succeeding months. Rather, our analysis covers the aggregate effects across the year. It would be interesting to examine whether such an intra-year rise and drop occurred, as well as whether any effects lingered into 2012. We note again, however, that the 2011 increases, both in number of cases and in number of defendants, followed the general trend of increases across the 5 years for both numbers.

#### A. Top Lawsuit Filers

The data also show an interesting result when grouped according to how many infringement cases a particular patent holder filed in the five years covered by the sample. Looking at the data in this manner provides a view of which entities, and which types of entities, seem to be litigating most often. The data show that out of the five most litigious

patent holders in the sample, four are patent monetizers,<sup>59</sup> and only one is an operating company.<sup>60</sup>



In contrast, universities were almost invisible in this dataset. Universities accounted for only 0.2% of the first-named plaintiffs who filed lawsuits in our sample. The number rises slightly when second-named plaintiffs are included, but remains quite small.<sup>61</sup>

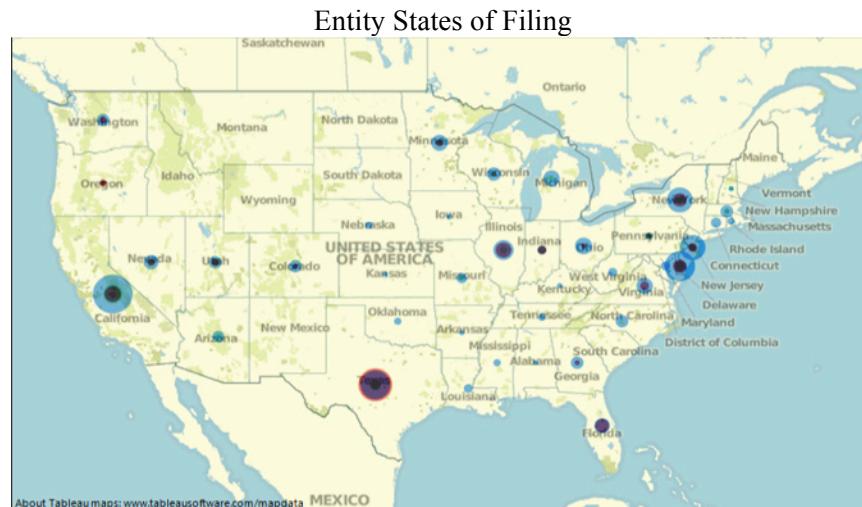
<sup>59</sup> Although Sorensen Research and Development Trust (SRDT) fund is listed as an “individual or trust” for purposes of transparency, SRDT’s litigation behavior is closer to that of a monetizer than that of an operating company, and several external sources characterize SRDT as a monetizer. See, e.g., Renee L. Jackson, Paul B. Klaas, Peter M. Lancaster & J. Thomas Vitt, *Patent Trolls: How To Avoid Being Gobbled Up*, DORSEY & WHITNEY LLP, [http://www.dorsey.com/files/upload/MP\\_CCS2010\\_Complete\\_Patent\\_Trolls.pdf](http://www.dorsey.com/files/upload/MP_CCS2010_Complete_Patent_Trolls.pdf) (last visited Nov. 10, 2012) (listing SRDT as one of the “Kings of Troll Litigation”); Scott A. McKeown, *Notorious Troll Patents Reconsidered By USPTO, PATENTS POST-GRANT* (Mar. 29, 2011), <http://www.patentspostgrant.com/lang/en/2011/03/notorious-troll-patents-reconsidered> (characterizing SRDT as an “infamous troll”); Peter Zura, *Who Cares About Health Care Reform? Patent Reform is Back!*, THE 271 PATENT BLOG (Feb. 25, 2010) [http://271patent.blogspot.com/2010\\_02\\_01\\_archive.html](http://271patent.blogspot.com/2010_02_01_archive.html) (noting that SRDT is listed as one of the most litigious non-practicing entities).

<sup>60</sup> Some patent monetization entities may be undercounted in this set. For example, the largest known patent aggregator, Intellectual Ventures, holds its patents in the form of more than 1,300 shell companies. See Ewing & Feldman, *supra* note 4, at 7. Our methodology would not have recognized any connection between these shell companies, and thus would not have calculated the number of lawsuits that the entity as a whole may have filed.

<sup>61</sup> Universities account for about 5% of all second named plaintiffs, but even including this number, universities comprise less than 1% of all plaintiffs.

## B. States of Filing and States of Incorporation

We also looked at the data to see where patent holders were incorporated and where they chose to file their lawsuits. The following two maps show the entities' states of incorporation and states of filing. Blue circles indicate operating companies, and red circles indicate patent monetizers.



We designed the visual to help differentiate between clusters that represent factors common to all patent holders—both operating companies and monetizers—and clusters that represent factors specific to

monetizers. Thus, where the charts show red dots surrounded by larger rings of blue, one can assume that the parties are drawn to the area for reasons that apply to all patent holders. For example, both maps show a cluster of cases in Delaware. We see the red ring for monetizers surrounded by a larger ring of blue for operating companies. One could speculate that entities choose to incorporate in Delaware, for example, for its well-developed corporate law and not for any reason particular to patent monetization. On the States of Filing map, New York and California also show red dots surrounded by blue rings. These could reflect the sheer number of entities located in California and New York—particularly technology companies, who are more easily embroiled in patent litigation.<sup>62</sup>

The more interesting results on the map show up as large red dots not surrounded by a ring of blue. These indicate locations that have drawn patent monetizers but have not drawn patent litigants as a whole. Looking at the States of Filing map, it is not surprising to see a giant red dot over Texas, given that state's reputation as hospitable to patent lawsuits in general and to monetization lawsuits in particular. Large red dots also appear in other places, such as Florida, Illinois, and Indiana, indicating states where many patent lawsuits are filed. On the States of Filing map, red dots appear in Texas, Florida, and Virginia, indicating where many patent litigants are incorporated.

We consider our data to be insufficient to draw any conclusions at this juncture, because the sample size is small and the causal factors behind state selection are complex and interwoven. Nevertheless, the maps may suggest tantalizing possibilities. Perhaps patent monetizers prefer areas that have local rules related to patent litigation or even a generally experienced bench. That might explain part of the attraction of Illinois, with its key area of Chicago. Perhaps states are selected due to relationships with or the expertise of local counsel. What about Florida and Indiana? Are there characteristics of these locations, including those

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<sup>62</sup> Compare PATENT FREEDOM, *Exposure by Industry*, <https://www.patentfreedom.com/about-npes/industry/> (last visited July 13, 2012) (demonstrating with data captured as of July 13, 2012 that more than 50% of non-practicing entity lawsuits are in the hardware, software, semiconductor, communications, and consumer electronics industries), with U.S. Patent and Trademark Office, 886. *Patents, by Industry*, ALLCOUNTRIES.ORG [http://www.allcountries.org/uscensus/886\\_patents\\_by\\_industry.html](http://www.allcountries.org/uscensus/886_patents_by_industry.html) (showing that patents for electronic and other electronic equipment were approximately 21.8% of the patents issued between 1980 and 1998).

related to judicial fora that patent monetizers view as favorable, or are the data simply anomalous?

### C. Case Outcomes

Finally, we examined the outcomes of the cases filed in the five-year sample. At the outset, we note that the vast majority of cases settle. This is true regardless of whether the infringement suit was filed by an operating company or by a patent monetizer. As the chart shows, more than three-fifths of all cases in our sample appear to have settled.

All Plaintiff Case Outcomes	
Likely Settlement	325
Case is ongoing	95
Favored in Consent Judgment	22
Claim Defendant Favored in Consent Judgment	2
Procedural—Dismissal	16
Loss on Summary Judgment	12
Procedural—Stay	12
Win on Default Judgment	8
Win on Trial and Judgment	3
Loss on Trial and Judgment	2
Win on Appeal	1
Loss on Appeal	1
Loss on Default Judgment	1

Looking at the timing of the settlements, the data suggest that patent monetizers rarely proceed to trial, or even to a summary judgment decision. When they do proceed to the summary judgment stage,

monetizers win even more rarely. Our sample also shows a few more operating companies proceeding to trial or summary judgment. We caution, however, that the number of such cases in the sample is so small that one cannot safely draw a conclusion.

#### Outcomes By Plaintiff Type

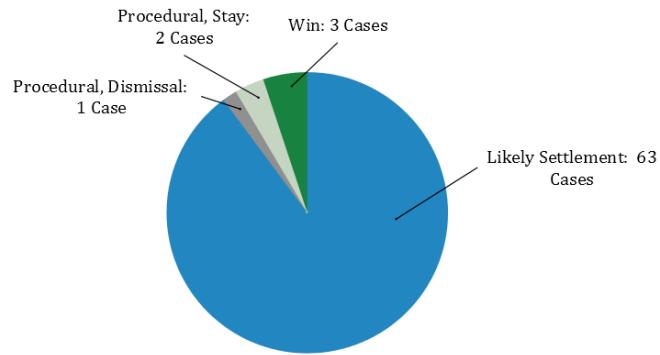
	Operating Company	Monetizer	Individual or Trust
Likely Settlement	79.30%	83.54%	78.79%
Favored in Consent Judgment	6.67%	3.80%	
Claim Defendant Favored in ..	0.70%		
Procedural—Dismissal	3.86%	1.27%	12.12%
Loss on Summary Judgment	3.16%	3.80%	
Procedural—Stay	2.46%	5.06%	
Win on Default Judgment	1.75%	2.53%	3.03%
Win on Trial and Judgment	0.70%		3.03%
Loss on Trial and Judgment	0.70%		
Win on Appeal	0.35%		
Loss on Default Judgment			3.03%
Loss on Appeal	0.35%		

In addition, we note that the operating companies in our sample were slightly less likely to settle and slightly more likely to end the case with a win in some fashion. Again, we caution that the number of cases in which operating companies proceeded to trial or a win is so small and the differences between settlement rates for operating companies and monetizers in our sample are so slight that one cannot draw meaningful conclusions.

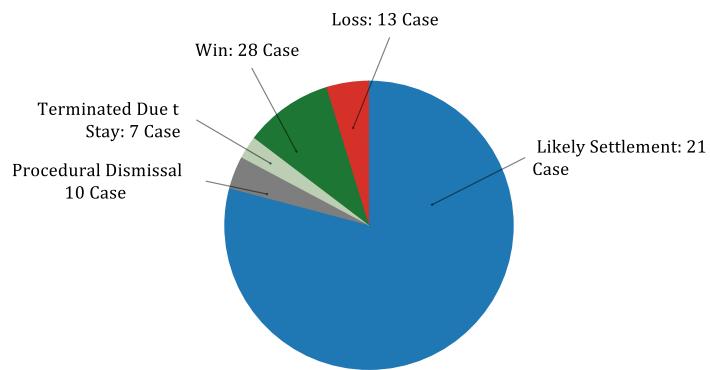
With the same sample size caveat in mind, we note that the category composed of individuals and trusts has a much higher procedural dismissal rate, as well as a slightly higher rate of loss by default judgments. It is possible that individuals and trusts are not as adept at navigating the legal system as corporations or larger monetizers,

which could lead to greater procedural failures. We also note that individuals and trusts continue to trial more often than others. Although the data permits no more than speculation, possible explanations could include that individuals and trusts have a greater emotional investment in the case or that operating companies do not consider individuals to be much of a threat and therefore are reluctant to settle. These issues would benefit from further data and exploration.

Monetizer Outcomes



Operating Company Case Outcome



## CONCLUSION

For some time, courts and commentators have grappled with the question of whether patent monetization entities are having an effect on modern patent litigation. We have attempted to help answer this question.

A random sample of 500 cases from 2007 to 2011 suggests that the impact of patent monetization entities on patent litigation is both dramatic and growing over time. We note in particular that lawsuits filed by patent monetizers have increased from 22 percent of the cases filed to almost 40 percent of the cases filed, and that the increase has occurred in only five years.

We also note that of the five litigants who filed the most patent infringement claims in the period covered by the data, four were monetizers and only one was an operating company. On the opposite end of the spectrum, universities barely registered on the scale, filing only 0.2 percent of the lawsuits in our sample.

Finally, the data also show that cases filed by patent monetization entities were unlikely to advance very far in the trial process and generally settled early in the litigation. The number of cases of any type proceeding to final disposition is small, however, making reliable conclusions impossible to draw.

We hope the data will not only help to answer Congress's initial question concerning the impact of non-practicing entities on patent litigation, but also will spur legislators to look for ways to address the impact that patent monetization entities are having on the United States patent litigation system, as well as on the economy as a whole.

**Appendix A: Aggregated Entities by Year**

Year	Individual or Trust	Insufficient Evidence	Monetizer	Operating Company	Other Entity	University
2007	5	7	14	70	4	
2008	13	3	12	71	1	
2009	10	10	13	66	1	
2010	4	10	22	64		
2011	10	17	19	51	2	1