

AMERICA INVENTS ACT: FIRST-TO-FILE AND A RACE TO THE PATENT OFFICE

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I. INTRODUCTION

On September 16, 2011, President Barack Obama signed into law the Leahy-Smith America Invents Act (AIA).¹ This law marks the first significant overhaul of the patent system in almost sixty years and will completely change the way companies file for patents.² The previous patent system, while successful, operated using different standards of review than most of the world.³ Additionally, waiting for the Patent and Trademark Office (PTO) to examine and approve a patent under the old system could take years.⁴ The AIA aims not only to bring the patent system in America closer in line with the rest of the world, but also to simplify the process of filing for patents, reduce costs and wait times for small businesses and provide greater protection for existing patents.⁵

As stated, the AIA made numerous significant changes to the U.S. patent system. Perhaps the most significant change is the switch from a “first-to-invent” system—where a patent would be awarded to the person able to show that they invented a particular product first—to the more common “first-to-file” system.⁶ Most of the world uses the first-to-file patent system, which awards patents to the inventor who first files the patent application.⁷ Additionally, the AIA made significant changes to the

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¹ Jeffrey Shieh, *What the America Invents Act Means for the Small Investor*, NETWORK WORLD (Oct. 5, 2011), <http://www.networkworld.com/news/tech/2011/100511-america-invents-act-251630.html>.

² Amy Schatz, *Patent-Overhaul Bill Clears House*, WALL ST. J. (June 23, 2011), <http://online.wsj.com>.

³ See Ryan K. Dickey, *The First-to-Invent Patent Priority System: An Embarrassment to the International Community*, 24 B.U. INT’L L.J. 283, 305 (2006); see also Doug Harvey, *Reinventing the U.S. Patent System: A Discussion of Patent Reform Through an Analysis of the Proposed Patent Reform Act of 2005*, 38 TEX. TECH L. REV. 1133, 1140 (2006).

⁴ See John Koenig, *The America Invents Act Is Better for Small Business*, JOHNKOENIG.COM (Sept. 21, 2011), <http://johnkoenig.com/the-america-invents-act-is-better-for-small-business/>.

⁵ *Id.*; see also Harvey, *supra* note 3, at 1137.

⁶ See Wendell Ray Guffey & Kimberly Schreiber, *America Invents Act: The Switch to a First-to-File Patent System*, 68 J. MO. B. 156, 156 (2012).

⁷ *Id.*

term “prior art,” expanding its scope by having it apply to most public disclosures made in the United States or abroad.⁸ The AIA also created a “micro entity” status, which grants companies reduced fees when filing patent applications if they meet certain requirements.⁹ Finally, the PTO now has the authority to set its own fees, which have been raised fifteen percent for most patent-related fees.¹⁰

While a goal of the AIA may be to ease the cost burden of maintaining intellectual property for small businesses, the law will likely fail to achieve this objective. Large corporations have the financial capabilities to win races to the PTO, which is essentially now the test for being awarded a patent. No reform can change the fact that large corporations have more available resources to acquire patents than small businesses and individual inventors. Nonetheless, small businesses can publicly disclose their inventions in order to invoke a one-year grace period. Unfortunately, this makes filing a patent overseas much more difficult since foreign countries often do not recognize a public disclosure grace period. Additionally, the costs of hiring an attorney and filing for patents are still burdensome for small businesses, even with the creation of the micro entity. In fact, the fees for filing a patent are only a small fraction of the total cost of obtaining a patent, given that lawyer fees can cripple an inventor’s chance of getting a patent. Finally, the AIA failed to significantly address the ever-growing problem of patent litigation. This includes the growing patent troll situation, where entities that exist solely to bring patent lawsuits sue unsuspecting small businesses that cannot afford litigation.

Nonetheless, the AIA represents a positive, albeit small, step forward for the U.S. patent system. One of the main problems of the old patent system, in addition to the prohibitive cost, was the backlog of patents faced by the PTO. It could take years for the PTO to examine patents, which, for some industries, is far too long to make owning a patent worth the trouble. However, in many ways the AIA simplifies the process of obtaining a patent, and it stands to reason that in time the PTO will become more efficient in their examination of applications, meaning shorter wait times for inventors. Now that the PTO is permitted to set its own fees, the PTO can finally modernize their facilities and streamline the patent application process.¹¹ As part of this new fee-setting authority, the PTO is lowering fees for electronic filing, which should incentivize inventors to file electronically and help the PTO to more efficiently examine applications.

⁸ See 35 U.S.C. § 102(a) (Supp. V 2011); see also Robert A. Armitage, *Understanding the America Invents Act and Its Implications for Patenting*, 40 AIPLA Q.J. 1, 39–40 (2012).

⁹ 35 U.S.C. § 123; see also Shieh, *supra* note 1.

¹⁰ See Patrick M. Boucher & Daniel J. Sherwinter, *The America Invents Act*, 41 COLO. LAW. 1, 47, 55 (2012).

¹¹ See *id.*

Additionally, bringing the U.S. system in line with the rest of the world should make it easier for small businesses to obtain patents in foreign countries.

This note will first briefly discuss the first-to-invent standard and why reform was necessary in the first place.¹² Second, it will explain in detail the changes instituted by the AIA.¹³ Third, this note will outline the ways that the AIA and the first-to-file system negatively affect small businesses and individual inventors.¹⁴ This note will then outline some of the positives behind the AIA.¹⁵ Finally, the note will advise small corporations and inventors how they can best take advantage of the AIA and protect their intellectual property.¹⁶

II. PROBLEMS WITH THE FIRST-TO-INVENT STANDARD

Prior to the enactment of the AIA, the United States was one of the last countries in the world still using the first-to-invent standard for awarding patents.¹⁷ This was problematic for many reasons. For one, this lack of uniformity with the international community made filing for patents in foreign countries difficult for less sophisticated businesses because of the different standards and disclosure rules.¹⁸ Additionally, inventors trying to prove that they were indeed the first to invent a particular invention would rack up significant costs in litigation during interference proceedings.¹⁹ Proponents of the first-to-invent system claimed that it actually protected small entities because they could fight to prove that they were the first inventors.²⁰ In practice, however, small entities did not have an advantage in the old system, and first-to-file will likely not hurt their ability to file for patents any more than first-to-invent.²¹

A. *First-to-Invent and Interference Proceedings*

Under the first-to-invent rule, a person would be entitled to a patent if he or she could prove that they were the original inventor.²² Therefore,

¹² See *infra* Part II.

¹³ See *infra* Part III.

¹⁴ See *infra* Part IV.

¹⁵ See *infra* Part V.

¹⁶ See *infra* Part VI.

¹⁷ See Schatz, *supra* note 2.

¹⁸ See Guffey & Schreiber, *supra* note 6.

¹⁹ See Bernarr R. Pravel, *Why the United States Should Adopt the First-to-File System for Patents*, 22 ST. MARY'S L.J. 797, 798 (1991).

²⁰ See Dickey, *supra* note 3, at 298.

²¹ *Id.*

²² See 35 U.S.C. § 102(a) (Supp. V 2011) (“[T]he invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent . . .”).

being the first inventor to file for a patent did not guarantee that a patent would be awarded.²³ A person who claimed to be the original inventor could challenge a patent that had already been filed and offer proof that he or she was in fact the original inventor.²⁴ This process, called an interference proceeding, was very expensive and time consuming.²⁵ When an interference proceeding was initiated, the time it took to examine a patent application was extended by the amount of time it took to resolve the interference.²⁶ In addition, the amount of discovery that was permitted during these proceedings was extensive, which would make the process longer and more expensive.²⁷ The cost of protecting patents in interferences proved especially costly for small entities and individual inventors.²⁸

Because of these interference proceedings, patent holders had an obligation to take wide-ranging precautions to protect against interference proceedings and litigation.²⁹ Inventors needed to thoroughly document all stages of the formation of a particular invention.³⁰ In addition, a witness would usually need to corroborate the records in order for them to be entered into evidence in an interference proceeding.³¹ All of these considerations made interference proceedings very expensive, and potentially crippling for small businesses.³²

B. *Small Entities Did Not Benefit from First-to-Invent*

Proponents of first-to-invent typically argued that the system was more beneficial to small businesses and individual inventors because they had

²³ See Harvey, *supra* note 3, at 1139.

²⁴ *Id.*

²⁵ See Pravel, *supra* note 19 (“An interference can be a relatively complex proceeding in which the parties are permitted to take testimony, produce documents, and in effect go through a trial-like procedure before experienced members of a Patent Office Board of Patent Appeals and Interferences.”).

²⁶ *Id.*

²⁷ See *id.*; Harvey, *supra* note 3, at 1139 (“For example, navigating through the complex first-to-invent system requires significant expertise and funds. Moreover, litigation over who actually invented first involves high costs and difficult subject matter.”).

²⁸ Dickey, *supra* note 3, at 304 (“Again studies estimate the cost of determining inventorship to be anywhere from \$100,000 to \$500,000 on average. These studies have also found that interference proceedings take an average of two and a half years to complete. In the end, interferences become cost prohibitive for many applicants, especially small entities and independent investors.”).

²⁹ Harvey, *supra* note 3.

³⁰ *Id.*; see also *Wiesner v. Weigert*, 666 F.2d 582, 588 (C.C.P.A. 1981) (holding that actual proof of invention’s successful operation is necessary to show reduction to practice).

³¹ Pravel, *supra* note 19.

³² *Id.* at 799 (“Because interference proceedings are complex and time consuming, the interferences commonly cost far in excess of the normal costs of preparing and prosecuting a patent application. The legal costs of an interference may be hundreds of thousands of dollars and may be difficult to avoid.”).

more trouble affording a lawyer to help them file for a patent.³³ However, empirical evidence does not support this conclusion. As already demonstrated, the interference proceedings that accompanied the first-to-invent system were costly and forced inventors to keep meticulous records and documentation.³⁴ Additionally, statistics show that in both a first-to-file system and a first-to-invent system, larger corporations overwhelmingly secure the majority of patents.³⁵ The numbers vary from study to study, but in all of them, the small entity does not have an advantage in one system over the other, and the extra costs and uncertainty that come with first-to-invent are not helping the individual inventors.³⁶ In addition, interference proceedings are typically initiated by larger corporations, meaning that the small business is less likely to be able to protect its invention even if it was the first inventor.³⁷ The main argument made by proponents of the first-to-invent system was that it protected small entities, but that has proven not to be the case. Small entities are at a disadvantage almost by default as a result of their fewer resources. As a result, a switch to first-to-file became necessary as part of a greater reform to the U.S. patent system.

III. REFORMS TO THE U.S. PATENT SYSTEM UNDER THE AMERICA INVENTS ACT

The AIA completely overhauled the patent system in the United States. The primary reform, and the change earning the most media attention, is the switch to a first-to-file system.³⁸ However, many other key aspects of the American patent system have changed under the AIA, many of which are aimed at reducing the cost of acquiring a patent. Changes to how the term “prior art” is used will alter how an inventor can publicly disclose his or her invention.³⁹ Additionally, the “fast track examination” will decrease the wait time for certain patent examinations, allowing inventors to more easily obtain a patent.⁴⁰ Furthermore, the AIA introduces new patent-challenging proceedings that provide more cost-efficient methods of challenging the

³³ See Dickey, *supra* note 3, at 297 (“Supporters of retaining the American Rule claim that it protects these small entities, ‘who may not have the resources to file patent applications quickly and may therefore lose a patent race to large companies who invented after they did.’”).

³⁴ Harvey, *supra* note 3, at 1139–40.

³⁵ See Dickey, *supra* note 3, at 298 (“[P]rotection of small entities cannot justify retaining the American Rule [first-to-invent] unless, at the very least, the rule protects more small entities than it harms.”).

³⁶ *Id.*

³⁷ See *id.* at 298–99 (“[L]arge, sophisticated entities are more likely [to understand the patent system, including the rather arcane interference process, and use it to their advantage.” (citations omitted)).

³⁸ See Guffey & Schreiber, *supra* note 6.

³⁹ See Armitage, *supra* note 8, at 40.

⁴⁰ See 37 C.F.R. § 1.102 (2012); see also Koenig, *supra* note 4.

validity of a patent.⁴¹ The discussion that follows will explain these and other major changes being instituted by the new law of which all inventors need to be aware.

A. *First-to-File*

Changing from a first-to-invent standard to first-to-file is a significant change for the United States. Accordingly, most of the media attention is focused on this aspect of the law. The AIA brings the United States in line with the rest of the world by switching to the first-to-file rule.⁴² Generally under this rule, the first person to file a patent application will be awarded the patent, provided that he or she was the actual inventor.⁴³ No longer does the original inventor have absolute invention rights.⁴⁴ As a result of this change, there is no longer a need to conduct interference proceedings to determine the identity of the original inventor.⁴⁵ The United States, however, will keep its one-year grace period where an inventor can disclose the invention one year prior to filing and still be entitled to the patent.⁴⁶ The rest of the world for the most part does not follow this grace period.⁴⁷ The first-to-file system is intended to streamline the process for filing patents by reducing both cost and wait times.⁴⁸ The first-to-file change took effect on March 16, 2013.⁴⁹

B. *Disclosure and Prior Art*

The methods used by inventors to disclose their inventions, and thus trigger the one-year grace period, have also changed. Public disclosure, as outlined in 35 U.S.C. § 102(a) and (b), occurred when someone patented an invention or described the invention in a printed publication in any country.⁵⁰ However, the courts' application of this did not require that the "public use" actually be public in order to destroy a patent application.⁵¹ Actions conducted in secret, such as offers for sale, would amount to a public disclosure.⁵² Further, disclosures by third parties counted as public

⁴¹ See 35 U.S.C. § 135(b) (Supp. V 2011).

⁴² Guffey & Schreiber, *supra* note 6.

⁴³ *Id.* (noting that this system is often referred to as a "race to the patent office").

⁴⁴ See *id.*

⁴⁵ See Pravel, *supra* note 19, at 800.

⁴⁶ Mark J. Patterson & M. Andrew Pitchford, *First to File*, TENN. B.J., Nov. 2011, at 14, 15 ("When one-year grace period is invoked by a public disclosure, any subsequent disclosures are not considered prior art against the filed application.").

⁴⁷ See *id.*

⁴⁸ See Sarah S. Brooks, *How Patent Filing Changes Will Impact Your Business and Its Inventions*, SMART BUSINESS (Nov. 1, 2012), <http://www.sbnonline.com>.

⁴⁹ Guffey & Schreiber, *supra* note 6.

⁵⁰ See 35 U.S.C. § 102(a)–(b) (Supp. V 2011); see also Brooks, *supra* note 48.

⁵¹ Armitage, *supra* note 8, at 42.

⁵² *Id.* at 43.

disclosures under the old patent system. The United States is one of the only countries in the world to offer this grace period for public disclosure.⁵³

Now, the term “prior art” has merged into disclosure; accordingly, under the AIA, disclosure is the sole way to establish prior art.⁵⁴ In order to publicly disclose an invention, the AIA requires that the inventor actually make the invention available to the public—secret disclosures no longer apply.⁵⁵ Furthermore, the public disclosure must have occurred before the effective filing date.⁵⁶ However, the inventor still has only one year to file an application for the claimed invention after disclosure.⁵⁷ By making these changes, Congress wanted the new prior art in the AIA to aid the PTO in determining if an invention is valid and “sufficiently different” from a claimed prior art.⁵⁸

⁵³ See Margo A. Bagley, *Academic Discourse and Proprietary Rights: Putting Patents in Their Proper Place*, 47 B.C. L. REV. 217, 266–67 (2006) (“The [Japanese Patent Office] has a general six-month grace period, but the [European Patent Office] operates on an absolute novelty basis, with only limited exceptions for certain types of disclosures occurring within six months of the application filing date—quite different from the grace period provided in 35 U.S.C. § 102(b).”).

⁵⁴ See Armitage, *supra* note 8, at 29 (“Congress did not intend that ‘descriptions’ would no longer constitute prior art, but instead determined that a single term, ‘disclosed,’ could encompass any means or method of disclosure for subject matter qualifying as prior art under § 102(a)’s definition for the term.”).

⁵⁵ See *id.* at 44.

⁵⁶ See *id.* at 15–16 (“[T]he default date for the ‘effective filing date’ is the actual patent application filing date in the case of a still-pending patent application. Similarly, the default effective filing date for a claimed invention in a patent is the filing date of the actual application on which a patent has issued.”).

⁵⁷ 35 U.S.C. § 102(b) (Supp. V 2011); see also Guffey & Schreiber, *supra* note 6, at 158. Guffey and Schreiber describe a scenario in which Inventor A discloses an invention prior to Inventor B’s filing for a patent for the same invention. *Id.* Since the invention was made available to the public prior to filing, Inventor B cannot obtain a patent. Inventor A can obtain a patent so long as he or she files the application less than one year after the disclosure. *Id.*

⁵⁸ See Armitage, *supra* note 8, at 22. Application of the new disclosure and prior art rules are explained by Armitage as such:

[O]nce the AIA fully takes hold, the validity of a claimed invention in an issued U.S. patent should typically depend on the satisfaction of *four core tests* for patent validity—*sufficient differentiation* from the prior art, *sufficient disclosure* of the claimed invention, *sufficient definiteness* in claiming, and *sufficient concreteness* in characterizing the product or process for which the patent is sought.

Given the preceding cruise through the new definitions in the statute, the first of the four tests—*sufficient differentiation*—can now be expressed more meaningfully using the new statute’s defined terminology:

Is the *claimed invention* sufficiently different from the *prior art*, which consists of—(1) *disclosures made available to the public* (i.e., subject matter made *publicly accessible*) before

C. *Micro Entity*

Before the AIA, inventors and companies that met certain qualifications could qualify as “small entities,” which entitled them to reduced fees. That is still the case; now an additional group labeled “micro entities” has been created that aims to make filing for a patent as affordable as possible.⁵⁹ A business is a small entity for purposes of reduced filing fees if it has fewer than 500 employees and has not assigned the rights to an invention to anyone that would not also qualify as a small entity.⁶⁰ For an individual inventor to qualify as a small entity, all that is required is that he or she not assign the invention to a party that does not qualify as a small entity.⁶¹ Small entities are entitled to a fifty percent reduction on most fees.⁶² A micro entity must meet the same criteria as the small entity; the AIA also requires the inventor not to have been named as an inventor on four previously filed patent applications in the United States.⁶³ Additionally, the inventor may not have a gross income exceeding three times the median household income and can not have assigned the invention to anyone that does not qualify as a micro entity.⁶⁴ Universities can also qualify for this micro entity status.⁶⁵ Micro entities are generally entitled to a seventy-five percent reduction in fees.⁶⁶ This micro entity status should make it more affordable for small businesses and individual investors to quickly file an application for a patent and thus take advantage of the first-to-file system.

D. *Fee-Setting Authority and Increased Fees*

The AIA grants the PTO the authority to set its own fees and additionally includes a fifteen percent surcharge on most patent-related fees.⁶⁷ This ability to raise fees allows the PTO to cover its costs more effectively and ideally upgrade the patent examination process by

the *effective filing date* of the *claimed invention*, and (2) *descriptions* in earlier U.S. (and U.S.-designating Patent Cooperation Treaty patent filings), *naming another inventor*, that subsequently became *available to the public* (i.e., were *published or issued as patents*).

Id. at 22–23.

⁵⁹ See 35 U.S.C. § 123.

⁶⁰ 13 C.F.R. § 121.802 (2012); 37 C.F.R. § 1.27(a) (2012).

⁶¹ See 37 C.F.R. § 1.27(a)(1).

⁶² 35 U.S.C. § 41(h)(1).

⁶³ 35 U.S.C. § 123(a)(2).

⁶⁴ 35 U.S.C. § 123(a)(3)–(4).

⁶⁵ See 35 U.S.C. § 123(d).

⁶⁶ Shieh, *supra* note 1.

⁶⁷ See Boucher & Sherwinter, *supra* note 10, at 55. The new fees can be viewed at www.uspto.gov/web/offices/ac/qs/ope/fee092611.htm.

modernizing its facilities.⁶⁸ Along with the change to a first-to-file system, which should reduce the amount of time spent evaluating a patent, the increase in revenue should allow the PTO to operate more efficiently. The PTO can only increase fees to the extent that they cover any increase in costs, however, which may limit its revenue raising abilities.⁶⁹ Lastly, inventors can now avoid a \$400 surcharge by submitting their application electronically.⁷⁰

E. *Fast-Track Examination*

Inventors can now pay a premium in order to expedite the patent examination process.⁷¹ Generally, inventors that do not fall into the small or micro entity labels must pay an extra \$4800 as a prioritized examination fee, while small and micro entities pay an extra \$2400.⁷² An extra fee for micro entities has yet to be determined. If the reason for filing the fast-track examination is for a specific reason allowed by the AIA, however, the fee is waived, regardless of whether the inventor qualifies for micro entity status.⁷³ The fast-track process does not require the inventor to submit the results of a prior art analysis, making the application process less burdensome.⁷⁴ This process should appeal to high-tech companies that require a quick turnaround on patent applications.⁷⁵ The old process for software patents would have been essentially useless for inventors because the technology was likely to become old news by the time a patent could be awarded. Close to 1000 fast-track applications were filed within the first few months of the fast-track option being made available.⁷⁶

F. *The Review Process and Patents Challenges*

As interference proceedings are no longer necessary because of the switch to the first-to-file system, the AIA has introduced other methods to

⁶⁸ See Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 10(a)(2), 125 Stat. 284, 316 (2011) (“Fees may be set or adjusted under paragraph (1) only to recover the aggregate estimated costs to the Office for processing, activities, services, and materials relating to patents (in the case of patent fees) and trademarks (in the case of trademark fees), including administrative costs of the Office with respect to such patent or trademark fees (as the case may be).”).

⁶⁹ See *id.*

⁷⁰ Koenig, *supra* note 4.

⁷¹ See 37 C.F.R. § 1.102 (2012); see also Koenig, *supra* note 4.

⁷² See 37 C.F.R. § 1.17.

⁷³ See *id.* § 1.102(c) (“A petition to make an application special may be filed without a fee if the basis for the petition is: (1) The applicant’s age or health; or (2) That the invention will materially: (i) Enhance the quality of the environment; (ii) Contribute to the development or conservation of energy resources; or (iii) Contribute to countering terrorism.”).

⁷⁴ Boucher & Sherwinter, *supra* note 10, at 52.

⁷⁵ *Id.*

⁷⁶ *Id.*

challenge patents. Derivation proceedings, which determine if an invention was derived from another inventor's work without authorization, replace the interferences.⁷⁷ The PTO will deny any patent deemed to be a derivation of a prior work.⁷⁸ There are two ways to initiate a derivation proceeding. First, the owner of a patent may file a civil action where the court will judge the validity of any interfering patent.⁷⁹ The owner of a patent may also petition for a proceeding before the Patent Trial and Appeal Board (PTAB), which has its own standards and does not allow the same depth of discovery that a regular trial would, making it a less expensive option.⁸⁰

The AIA includes two other primary methods of challenging a patent: post-grant review, which existed in the old system, and *inter partes* review. A petitioner can file a post-grant review within nine months of the date the PTO grants a patent to determine its validity.⁸¹ Generally, the only disputes that will arise during a post-grant review are related to the new first-to-file rules.⁸² However, a post-grant review can be used to challenge a patent on any grounds of invalidity.⁸³ The downside to using post-grant reviews, however, is that any claim of invalidity raised in the post-grant review cannot be raised in another proceeding.⁸⁴ In other words, if an inventor fails to invalidate a patent on particular grounds in a post-grant review, he or she cannot bring up those same grounds in a separate forum.

An *inter partes* review allows parties to challenge prior art as well as the novelty of the patent. When the AIA was first passed, the petition for a review had to be filed within nine months after the window of eligibility for

⁷⁷ See 35 U.S.C. § 135(b) (Supp. V 2011) (“In a derivation proceeding instituted under subsection (a), the Patent Trial and Appeal Board shall determine whether an inventor named in the earlier application derived the claimed invention from an inventor named in the petitioner’s application and, without authorization, the earlier application claiming such invention was filed.”).

⁷⁸ See 35 U.S.C. § 135.

⁷⁹ See 35 U.S.C. § 291; see also *id.* § 146.

⁸⁰ See *id.* § 326 (a)(5) (“[S]etting forth standards and procedures for discovery of relevant evidence, including that such discovery shall be limited to evidence directly related to factual assertions advanced by either party in the proceeding.”); see also Boucher & Sherwinter, *supra* note 10, at 51.

⁸¹ See 35 U.S.C. § 321(c).

⁸² See Dennis Crouch, *Post Grant and Inter Partes Reviews Now Being Filed*, PATENTLYO (Sept. 18, 2012), <http://www.patentlyo.com/patent/2012/09/post-grant-and-inter-partes-reviews-now-being-filed.html> (“Generally, PGR will only be available to challenge patents issued under the new first-to-file rules of the AIA. However, under the AIA, the PGR system can currently be used to challenge financial business method patents that fit the description provided by the statute.”).

⁸³ See Julie Beck & Steven Seidenberg, *Cheat Sheet: How to Challenge Patents Under the America Invents Act*, INSIDE COUNSEL (Dec. 11, 2012), <http://www.insidecounsel.com/2012/12/11/cheat-sheet-how-to-challenge-patents-under-the-ame?t=ip>.

⁸⁴ *Id.*

a post-grant review.⁸⁵ However, this waiting period was removed by Congress during a revision of the AIA.⁸⁶ Additionally, *inter partes* reviews limit discovery, and proceedings are more streamlined, making it a more cost-effective option than regular litigation.⁸⁷ Furthermore, the PTO claims that all *inter partes* reviews are completed within twelve months.⁸⁸ Both of these review methods are appealable to the United States Courts of Appeals.⁸⁹

IV. HOW FIRST-TO-FILE AND THE AMERICA INVENTS ACT NEGATIVELY IMPACT INDIVIDUAL INVENTORS

The reforms instituted by the AIA offer some new advantages created with small business and entrepreneurs in mind. The new rules aim to streamline the process of filing a patent application and reduce fees for small businesses.⁹⁰ However, the rules overwhelmingly favor larger corporations, and small businesses and individual inventors will struggle to protect their inventions if they are not able to file them right away.⁹¹ Additionally, the AIA largely fails to address the problem of non-practicing entities (NPEs), also known as “patent trolls.”⁹² The increase in patent litigation over the past decade will likely continue under the AIA,⁹³ hurting small businesses that cannot afford to litigate. Lastly, the patent office is going to continue to see massive increases in the amount of patent applications being filed, and it is possible that the first-to-file system will fail to effectively expedite the examination process.⁹⁴

A. *First-to-File Increases Costs*

Now that first-to-invent is no longer a factor for determining the validity of a patent application, the critical factor now becomes which inventor first filed for a patent or which inventor disclosed first. Assuming two parties invent something, “the determination of who has priority to an

⁸⁵ See 35 U.S.C. § 311; see also Karl Renner, *Inter Partes Review*, FISH & RICHARDSON, <http://www.fr.com/reexam-services-post-grant-ipreview/> (last visited Mar. 30, 2013).

⁸⁶ Davies Collison Cave & Robert Finn, *America Invents Act Revised*, LEXOLOGY (Jan. 23, 2013), <http://www.lexology.com>.

⁸⁷ Beck & Seidenberg, *supra* note 83.

⁸⁸ *Id.*

⁸⁹ See 35 U.S.C. § 329.

⁹⁰ See Boucher & Sherwinter, *supra* note 10, at 48.

⁹¹ *Id.*

⁹² See Sara Jeruss, Robin Cooper Feldman & Joshua Walker, *The America Invents Act 500: Effects of Patent Monitization Entities on US Litigation*, 11 DUKE L. & TECH. REV. 357, 359–60 (2012).

⁹³ See generally *id.*

⁹⁴ See Charles Duhigg & Steve Lohr, *The Patent, Used as a Sword*, N.Y. TIMES, Oct. 7, 2012, <http://www.nytimes.com>.

invention effectively hinges not simply on who wins the race to the Patent Office, but also on who wins the race to disclosure.⁹⁵ The concern here is that smaller companies and individual investors do not always have the funds or legal counsel necessary to quickly file an application for a patent.⁹⁶ Larger corporations, on the other hand, likely have armies of intellectual property lawyers on retainer and the deep pockets necessary to file a large number of patent applications. The new system should allow the PTO to operate more efficiently; however, this comes at a cost for small inventors.

Apple, Inc. is a compelling example of a large corporation using its incredible resources to file as many patents as possible. After settling a patent infringement case with Creative Technology in 2006, Apple instituted a policy where any new idea would be patented, even if the company never intended to use the idea.⁹⁷ This defensive tool not only helps prevent Apple from being sued for patent infringement, but it also allows the company to be aggressive against those it feels are infringing against them.⁹⁸ In furtherance of this policy, Apple's engineers would meet with patent lawyers for monthly "invention disclosure sessions." In these sessions, the engineers would describe a piece of software or a modification to a popular application, and the patent lawyers would mark these down as patents that would be filed.⁹⁹ Even if the patents were unlikely to be approved by the PTO, filing would prevent other companies from trying to patent the same idea.¹⁰⁰ Apple is an extreme example since it is one of the largest companies in the world; however, its actions illustrate some of the steps large corporations will take in order to establish intellectual property rights. Small businesses and individual inventors simply do not have the resources to file patents in a similar manner.

Even though the AIA has created the "micro entity" to go along with the "small entity" as a means of making filing for patents more affordable for small businesses, raising the funds necessary to quickly file a patent remains an issue for small businesses alone. It takes time to raise the funds necessary not only to invent a product, but also to afford a patent application. However, fees represent a very small percentage of the cost that goes into obtaining—and enforcing—a patent.¹⁰¹ Before an inventor has to worry about filing fees, he or she first must be able to afford a patent

⁹⁵ Boucher & Sherwinter, *supra* note 10, at 50.

⁹⁶ *Id.*

⁹⁷ See Duhigg & Lohr, *supra* note 94.

⁹⁸ *See id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ Jeff A. Ronspies, Comment, *Does David Need A New Sling? Small Entities Face a Costly Barrier to Patent Protection*, 4 J. MARSHALL REV. INTELL. PROP. L. 184, 194 (2004) ("[U]nfortunately for small entities, the fees required by the USPTO constitute only a small percentage of the costs all too often required to enforce the rights conveyed by a patent grant.").

attorney that can effectively fill out and file the application. The attorney's fees for even simple patents can run in the thousands of dollars, while those that are more complex may cost an inventor as much as \$15,000.¹⁰² Furthermore, conducting a prior art search before filing the application is another time-consuming and costly hurdle that will cause small businesses to struggle.¹⁰³ Now that the rule is first-to-file, inventors may no longer fall back on being able to prove that they were the original inventor. This makes it more important than ever for individual inventors and small businesses to either disclose their invention or file a patent application as quickly as possible. However, the cost barriers that often have nothing to do with the PTO fees make it hard for small businesses to file as quickly as they might need.

The AIA does retain the grace period for public disclosures of inventions, distinguishing the United States from the rest of the world. An inventor that publicly discloses his or her invention is given a one-year grace period to file an application for a patent.¹⁰⁴ This, in effect, gives inventors one year to raise the necessary funds and weigh the benefits of filing a patent application while still being protected from larger companies in the United States patenting for the same idea. However, foreign countries do not offer this same grace period for public disclosure by inventors. As a result, making a public disclosure prior to a patent application will make it almost impossible for an inventor to have his or her idea patented in another country.¹⁰⁵ Moreover, what amounts to a disclosure has been limited by the AIA, and a third-party disclosure will no longer allow an inventor to receive a one-year grace period.¹⁰⁶

B. The AIA Will Fail to Deter Patent-Related Litigation

The increase in patent-related litigation that has occurred during the past decade has been a massive drain on patent-holder resources, but the AIA largely failed to address this growing problem. While lawsuits involving technology giants—such as Apple, Samsung and Motorola—have

¹⁰² Gene Quinn, *The Cost of Obtaining a Patent in the U.S.*, IPWATCHDOG (Jan. 28, 2011), <http://www.ipwatchdog.com/2011/01/28/the-cost-of-obtaining-patent/id=14668/>. A patent that is more detailed will give the inventor more protection in the event of a lawsuit; however, it will be more costly. *See id.*

¹⁰³ *See* Matthew B. Zisk, *Let the Cat Out of the Bag: Why IP Diligence Matters in Tech Heavy Deals*, N.J. LAW., June 2009, at 21 (“Presently, a global FTO [Freedom-to-Operate] search of reasonable scope performed by a reputable search firm typically costs between \$3,000 and \$5,000, and a patentability search costs between \$4,000 and \$8,000.”); *see also* Ronspies, *supra* note 101, at 200 (“Many prior art searches fail to discover relevant, pre-existing innovations. But even when the search for prior art is limited, an opinion based on the findings may cost upwards of \$10,000.”).

¹⁰⁴ *See* 35 U.S.C. § 102(b) (Supp. V 2011).

¹⁰⁵ *See* Patterson, *supra* note 46, at 15.

¹⁰⁶ *See* 35 U.S.C. § 102(a)–(b); *see also* Brooks, *supra* note 48.

earned most of the media attention, this litigation can cripple small businesses due to the high costs involved.¹⁰⁷ Additionally, non-practicing entities (NPE, or patent trolls) account for forty percent of all patent lawsuits, and the AIA only took minor measures to curb NPEs from filing frivolous lawsuits.¹⁰⁸ The AIA will thus result in more litigation than before, because it is now easier than ever to obtain a patent under the first-to-file system; while the AIA creates low cost alternatives to lawsuits, these alternatives do not exclude litigation in federal courts.¹⁰⁹

While the reduced fees for smaller inventors may help with costs, the costs of protecting an invention in court are so significant that small businesses can be litigated to death by larger corporations.¹¹⁰ A study by the American Intellectual Property Law Association found that lawsuits with claims worth less than \$1 million have a median legal cost of \$650,000, while claims worth under \$25 million have a median legal cost of \$2.5 million.¹¹¹ These costs are a lot for small inventors to handle, especially considering how large corporations are in the position to easily outspend smaller inventors.¹¹² Furthermore, the prevailing party at trial is rarely awarded attorney's fees.¹¹³ As a result, even in situations where the small business is victorious over the larger corporation at trial, it is often a Pyrrhic victory where the amount of money spent to protect the patent is greater than any award that might be given by the court. Small inventors are aware of these high costs, and typically they will settle out of court when sued for patent infringement.¹¹⁴

Many of the lawsuits filed against small businesses and individual inventors come from NPEs, less lovingly referred to as "patent trolls." While there is no set definition for a patent troll, it generally fits the following description:

[A] patent troll is an entity that neither develops novel technologies nor uses those technologies to provide goods

¹⁰⁷ See Ronspies, *supra* note 101, at 195.

¹⁰⁸ See Jeruss et al., *supra* note 92, at 360.

¹⁰⁹ See Steven Overly, *Q&A: What to Watch as New Patent Rules Take Hold*, WASH. POST (Oct. 7, 2012), <http://www.washingtonpost.com>.

¹¹⁰ See Ronspies, *supra* note 101, at 195 ("The largest cost potentially contributing to diminished innovation amongst small entities is that of the legal actions often required to protect, enforce and ultimately recoup the sunk costs invested in the patent.").

¹¹¹ Jim Kerstetter, *How Much Is that Patent Lawsuit Going to Cost You?*, CNET (Apr. 5, 2012), http://news.cnet.com/8301-32973_3-57409792-296/how-much-is-that-patent-lawsuit-going-to-cost-you/.

¹¹² See Ronspies, *supra* note 101, at 197 ("In fact, another survey concluded that small companies are less likely to litigate to protect their patents even though many small companies believe that their patents are infringed upon at a higher frequency than those held by large corporations.").

¹¹³ *Id.* at 199.

¹¹⁴ See Jeruss et al., *supra* note 92, at 375.

or services to the market. Rather, a patent troll acquires 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. Typically, the troll will acquire the patent at a relatively low cost from an innovator, although some trolls may obtain their patents in-house. In this way, a patent troll acts as a speculator, paying for patent rights based on the hope that, in the future, it will be able to use the patent to obtain a higher reward.¹¹⁵

Terms such as “NPEs” or “patent monetization entity” are less controversial titles and are defined generally as entities that do not manufacture a product.¹¹⁶ Typically, NPEs will target companies that appear to be infringing on their patent, and then send the companies a letter offering to license the patent or else they will file a lawsuit.¹¹⁷ The patents are typically broad, and companies of all sizes are targeted.¹¹⁸ NPEs accounted for forty percent of all patent lawsuits filed in the United States in 2011, up from twenty-two percent in 2007.¹¹⁹ This number does not include situations where a licensing agreement was entered into before litigation ensued.¹²⁰

Given the high cost of litigation and the effect it has on small inventors, NPEs represent a significant problem that small businesses are rarely in a position to address.¹²¹ The lawsuits brought by NPEs are often frivolous, yet the cost of defending the invention in court is so large that inventors often have little choice but to enter into a licensing agreement.¹²² Unfortunately, the AIA largely passed on the opportunity to significantly protect legitimate patent holders. Congress directed the Government Accountability Office to conduct a study on the consequences of patent troll litigation, suggesting that future legislation may further address the issue.¹²³ Until then, small businesses will continue to have difficulty defending their patents.

¹¹⁵ Jason Rantanen, *Slaying the Troll: Litigation as an Effective Strategy Against Patent Threats*, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 164 (2006).

¹¹⁶ See Jeruss et al., *supra* note 92, at 369.

¹¹⁷ Caroline Coker Coursey, *Battling the Patent Troll: Tips for Defending Patent Infringement Claims by Non-Manufacturing Patentees*, 33 AM. J. TRIAL ADVOC. 237, 239 (2009).

¹¹⁸ See *id.*

¹¹⁹ Jeruss et al., *supra* note 92, at 377.

¹²⁰ See *id.* at 372–73, 377.

¹²¹ See Sarah McBride, *Patent Troll Fights Heat Up for Start Ups*, HUFFINGTON POST (Sept. 17, 2012), http://www.huffingtonpost.com/2012/09/17/start-ups-fight-back-as-p_n_1889938.html.

¹²² See *id.* A typical licensing agreement might run from \$100,000 to \$750,000, which is still a significant cost for small businesses. See *id.*

¹²³ See Jeruss et al., *supra* note 92, at 360.

C. The PTO's Extra Workload Could Increase Examination Periods

The first-to-file system makes filing for a patent as easy as it ever has been; ideally, it will make the examination process easier for the PTO. The PTO no longer needs to spend time determining who invented a product or idea first,¹²⁴ which should reduce the time it takes to examine an application. Additionally, the new fast-track examination offers inventors an option to shorten the examination time period if they are willing to pay extra.¹²⁵ However, in practice, it is possible that the PTO will face longer examination periods than ever before. The number of patents being filed each year has risen more than fifty percent in the last decade.¹²⁶

Now that the AIA has created a “race to the patent office,” the trend of increasing patent applications is likely to continue. The race to the patent office creates an incentive for businesses to file as many patent applications as possible, and as a result the workload for the PTO could worsen.¹²⁷ Furthermore, in the hurry to get to the patent office first, patent applications are likely to be rushed, and their lack in quality will further drag down the patent examination system.¹²⁸ The fast-track examination has proven popular so far, with almost 1000 fast-track applications filed within the first few months of the option being made available.¹²⁹ However, this has the potential to eventually hurt those small inventors who choose not to spend the extra money to get the fast-track service. If enough patent applications are filed seeking the fast-track examination, it could slow down the regular examination process.

V. POSSIBLE BENEFITS FOR SMALL BUSINESSES AND INDIVIDUAL INVENTORS UNDER THE AMERICA INVENTS ACT

The benefits of the AIA do not directly favor small businesses over larger corporations; nonetheless, the new rules being implemented should help the PTO—which in turn helps any inventor looking to secure a patent.¹³⁰ Despite its negatives, the first-to-file system is extremely predictable and eliminates the need to conduct time wasting proceedings

¹²⁴ See generally Guffey & Schreiber, *supra* note 6.

¹²⁵ See 37 C.F.R. § 1.17 (2012).

¹²⁶ Duhigg & Lohr, *supra* note 94. Tech giants are among the leaders in being awarded patents. Since 2000, Microsoft has been granted 21,000, Apple has been granted 4100 patents and Google has been granted 2700 patents. *Id.*

¹²⁷ See David W. Trilling, Note, *Recognizing a Need for Reform: The Leahy-Smith America Invents Act of 2011*, 2012 U. ILL. J.L. TECH. & POL'Y 239, 248 (2012).

¹²⁸ See Brad Pedersen & Vadim Braginsky, *The Rush to a First-to-File Patent System in the United States: Is a Globally Standardized Patent Reward System Really Beneficial to Patent Quality and Administrative Efficiency?*, 7 MINN. J.L. SCI. & TECH. 757, 767 (2006); see also Trilling, *supra* note 127.

¹²⁹ See Boucher & Sherwinter, *supra* note 10, at 52.

¹³⁰ See Pravel, *supra* note 19, at 805.

that determine the original inventor.¹³¹ Additionally, by granting the PTO the authority to set its own fees, Congress has given it the means needed to raise the funds required to keep up with the increase in patent applications that is sure to come its way.¹³² The fast-track examination is not significantly more expensive than the regular examination process, especially for micro entities, when considering the other costs necessary for securing a patent, and it is a very viable option for small inventors.¹³³ Finally, the AIA brings patent law in this country closer to the rest of the world.¹³⁴ This harmonization of systems should make it easier for large and small businesses alike to obtain international patent protection.¹³⁵

A. Switching to First-to-File Creates a Predictable System

The first-to-file system is certainly not without its flaws, especially in the context of small businesses or individual inventors. However, the system is more predictable for inventors who now no longer have to worry about proving that they were the original inventor.¹³⁶ Interference proceedings to determine the first inventor, while not overly common, were nonetheless a drag on the system and an unnecessary cost that disproportionately hurt small inventors.¹³⁷ The derivation proceedings instituted by the AIA should be more cost effective than interferences on account of less discovery than what is normally allowed in civil court.¹³⁸ Discovery is one of the more costly and time-consuming aspects of any patent litigation, and the new derivative proceedings should be more affordable as a result of this decreased discovery.¹³⁹ Litigation is still, as always, a legitimate threat to any inventor.¹⁴⁰ The first-to-file system does allow certain proceedings to be more predictable; thus, it should save all inventors money in the long run.

The global harmonization that comes with the AIA should also simplify the process for inventors looking to patent their invention globally. Previously, many felt that the U.S. patent system was overly complex and created higher costs for doing business in a global marketplace.¹⁴¹ While different systems of first-to-file exist worldwide, the U.S. system largely aligns itself with the rest of the world, with the exception of public

¹³¹ *See id.*

¹³² *See* Boucher & Sherwinter, *supra* note 10, at 48.

¹³³ *See* 37 C.F.R. § 1.17 (2012).

¹³⁴ Dickey, *supra* note 3, at 308.

¹³⁵ *See id.* at 309–10.

¹³⁶ *See* Pravel, *supra* note 19, at 800.

¹³⁷ *See id.* at 799.

¹³⁸ *See* Overly, *supra* note 109.

¹³⁹ *Id.*

¹⁴⁰ *See id.*

¹⁴¹ Liza Vertinsky, *Comparing Alternative Institutional Paths to Patent Reform*, 61 ALA. L. REV. 501, 540 (2010); *see also* Trilling, *supra* note 127, at 246–47.

disclosure.¹⁴² This harmonization will also help create more certainty with patent ownership, further reducing the need for expensive interference proceedings.¹⁴³

B. *The PTO's Fee-Setting Authority Will Aid Examination Efficiency*

Congress gave the PTO greater control over patent application fees and its ability to raise the funds it needs to handle the high volume of patent applications it receives every year.¹⁴⁴ The AIA limits the PTO's new fee-setting authority by only allowing it to raise fees to cover its costs.¹⁴⁵ However, currently the PTO has a backlog of over 700,000 patents and struggles with efficiently examining these applications.¹⁴⁶ New third-party proceedings and prioritized examinations should also help the PTO raise more revenue.¹⁴⁷ Ideally, these funds will be used to update the office's computer systems and increase its capacity to examine applications by hiring more patent examiners. Additionally, fees collected by the PTO in excess of the amount appropriated by Congress are kept by the PTO.¹⁴⁸ By giving the PTO the authority to set and keep its own fees, Congress is allowing the PTO to fix its efficiency problems and hopefully reduce the examination period for all inventors.¹⁴⁹

So far, the effects of this extra revenue stream are apparent, and the PTO is becoming more efficient with its patent examination.¹⁵⁰ Even though the PTO has seen a five percent increase in patent applications each year, the patent backlog has slowly been reduced.¹⁵¹ Additionally, the PTO has now opened satellite offices for the first time in Detroit, Denver, Dallas

¹⁴² See Trilling, *supra* note 127, at 246, 247 n.66.

¹⁴³ See *id.* at 246–47.

¹⁴⁴ See Boucher & Sherwinter, *supra* note 10, at 48.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* For an example of the inefficiencies of the PTO, the author quotes President Barack Obama:

Believe it or not, in our patent office—now, this is embarrassing—this is an institution responsible for protecting and promoting innovation—our patent office receives more than 80 percent of patent applications electronically, then manually prints them out, scans them, and enters them into an outdated case management system. This is one of the reasons why the average processing time for a patent is roughly three years. Imminently solvable; hasn't been solved yet.

Id.

¹⁴⁷ See *id.*

¹⁴⁸ Boucher & Sherwinter, *supra* note 10, at 48.

¹⁴⁹ *Id.*

¹⁵⁰ See Ashby Jones, *David Kappos to Leave PTO Early Next Year*, LAW BLOG (Nov. 26, 2012), <http://blogs.wsj.com/law/2012/11/26/david-kappos-to-leave-pt0-early-next-year/>.

¹⁵¹ *Id.*

and San Jose.¹⁵² Thus far, this fee-setting authority has helped the AIA achieve its goal of increasing patent examination efficiency.¹⁵³

C. *The Fast-Track Examination Could Increase Efficiency*

The fast-track examination process, which costs an extra \$4800 for non-small entities and \$2400 for small entities, provides all inventors with the opportunity to have their patent application quickly examined.¹⁵⁴ Even for small businesses and individual inventors, this extra fee is not significant compared to the fees an inventor will need to pay an attorney to file a patent application. By taking less time to have their patent applications processed and examined, businesses will be able to quickly expand their patent portfolios. Moreover, this procedure gives inventors more control over when their applications are pending. The sooner a company knows that its patent application has been accepted or rejected, the sooner that company will be able to move on with the future planning of the company. However, there is a limit of 10,000 fast-track applications that can be filed in any fiscal year, which further emphasizes the need for inventors to file as quickly as possible.¹⁵⁵

D. *Aligning the U.S. Patent System with the Rest of the World*

The majority of the industrialized world follows a first-to-file system now implemented by the AIA. Now that small businesses in the United States largely operate under the same patent regulations as the rest of the world, inventors in the United States have better opportunities to grow internationally. Small businesses and individual inventors are now able to file patent applications globally with a high degree of certainty that patents will be granted in every country. Such a harmonious system works to eliminate redundancy in granting and enforcing patents in different countries.¹⁵⁶ Ideally, first-to-file will not only decide which inventor is awarded a patent in the United States but internationally as well, reducing the need to determine the validity of a patent in multiple countries.¹⁵⁷ Some advocate for further harmonization, given that the United States' grace period remains unique to the States and patent review standards differ in other countries.¹⁵⁸ However, moving to a first-to-file system is a significant step in the right direction. Some differences remain that create inconsistencies among foreign countries and the United States, but small

¹⁵² *Id.*

¹⁵³ *See id.*

¹⁵⁴ *See* 37 C.F.R. § 1.17 (2012).

¹⁵⁵ *See* Patterson, *supra* note 46, at 16.

¹⁵⁶ *See* Dickey, *supra* note 3, at 309.

¹⁵⁷ *See id.*

¹⁵⁸ Pravel, *supra* note 19, at 806.

inventors here are more protected internationally as a result of the AIA, provided they have the means to quickly file for a patent.

E. *The AIA Limits Joining Multiple NPEs in One Lawsuit*

The AIA did institute one change that eliminates a common loophole used by NPEs in patent litigation. Section 299 of the AIA instituted a requirement that multiple parties may be joined in a single suit only if “they are accused of making, using, or selling the same product or process and there are questions of fact common to all defendants.”¹⁵⁹ NPEs sometimes join large numbers of defendants located all over the country in one lawsuit under Rule 20 of the Federal Rules of Civil Procedure, forcing defendants to litigate in the NPEs’ chosen forum.¹⁶⁰ Not all jurisdictions allowed this practice, but the Eastern District of Texas created one notable exception.¹⁶¹ The rule allowed NPEs to limit their litigation costs and make it more difficult to transfer venue.¹⁶² This codified change in section 299 of the AIA, however, will likely be of more benefit to larger corporations, because small businesses are still more likely to settle before a case gets to trial.

However, it is not yet known how courts will apply this aspect of the AIA.¹⁶³ Thus far, plaintiffs have generally complied with section 299, the section that imposed the new joinder rules.¹⁶⁴ NPEs now will file multiple lawsuits all over the country in lieu of joining all defendants into one lawsuit.¹⁶⁵ Courts in the Eastern District of Texas have even applied section 299 in pretrial motions; however, none of these cases have reached trial.¹⁶⁶ Because of this, many plaintiffs still file suits attempting to take advantage of the older joinder rules despite courts consistently severing unrelated defendants.¹⁶⁷ It remains to be seen how effective the new joinder standards will be in deterring NPEs from filing lawsuits, but the move was at least a small step from Congress toward protecting inventors from NPEs.

¹⁵⁹ Toni Tease, *New Act Brings Procedural Changes to Patent Law in the United States*, 37 MONT. LAW. 12, 13 (2012); see also 35 U.S.C. § 299 (Supp. V 2011).

¹⁶⁰ See Jeruss et al., *supra* note 92, at 360; see also FED. R. CIV. P. 20.

¹⁶¹ See Jeruss et al., *supra* note 92, at 378–79.

¹⁶² *Id.* at 379.

¹⁶³ Tease, *supra* note 159.

¹⁶⁴ *Multi-Defendant Joinder Under the America Invents Act: Much Ado About Nothing?*, JD SUPRA LAW NEWS (Dec. 20, 2012) [hereinafter *Multi-Defendant Joinder*], <http://www.jdsupra.com/legalnews/multi-defendant-joinder-under-the-america-97136/>; see also 35 U.S.C. § 299.

¹⁶⁵ See *Multi-Defendant Joinder*, *supra* note 164.

¹⁶⁶ *Id.*

¹⁶⁷ See *id.*

VI. HOW SMALL BUSINESSES SHOULD PROTECT THEIR INTELLECTUAL PROPERTY UNDER THE AMERICA INVENTS ACT

Because of the high costs of filing for and defending a patent, small businesses and inventors need to be diligent in protecting their intellectual property and taking all the necessary steps to ensure they will be granted a valid patent by the PTO. The most important thing a small business can do is file a patent as soon as possible. This was true before the AIA, but now filing is even more important. If an inventor cannot afford a lawyer to help him or her with the application process, then he or she should publicly disclose the invention right away, even if it hurts his or her ability to file patents outside the United States. Finally, inventors should mark their patented products in order to protect them from infringement lawsuits.

A. The AIA Necessitates Filing a Patent Application Immediately

Even though patent lawyers—the primary cost drivers for filing a patent application—were not touched by the AIA, the first-to-file system makes it imperative that inventors patent their inventions right away. Major corporations have the money and resources to create inventions at a rapid pace, and they are not hesitating to file patent applications. As a result, if a small business or inventor can afford to file a patent, it should not waste time. Inventors need to inform themselves of the new changes in the AIA and then create a patent strategy that will allow them to file for a patent as quickly as possible.¹⁶⁸ This will include instituting procedures that identify and document inventions, as well as hiring a good patent attorney to help with the patent application process, if it is economically feasible.¹⁶⁹

Inventors should also seriously consider fast-track examinations. These examinations do not require the applicant to conduct a prior art search, so if the inventor can afford the extra fee for this service it will help him or her save time and potentially beat another inventor to the finish line.¹⁷⁰ Since the additional fee for this is minor compared to the normal costs of filing a patent, inventors need to take advantage of this examination process. These statements were all true prior to the passage of the AIA, but first-to-file makes a fast-track examination more important because an inventor can no longer fall back on the fact that they were the original inventor.

Finally, because the AIA created the race to the patent office, making it more important than ever for small businesses to competently fill out their

¹⁶⁸ John Villasenor, *How Entrepreneurs Can Thrive Under the “First-Inventor-to-File” Patent System*, FORBES (Dec. 7, 2012), <http://www.forbes.com/sites/johnvillasenor/2012/12/07/how-entrepreneurs-can-thrive-under-the-first-inventor-to-file-patent-system/>.

¹⁶⁹ *Id.*

¹⁷⁰ Boucher & Sherwinter, *supra* note 10, at 52.

patent applications. Any mistakes on the application, such as a failure to conduct a prior art search or not describing the invention specifically enough, will likely result in a rejection by the PTO. In the event of a rejection, the inventor will have to go through the cost of hiring a lawyer to put together another application. For many, this could make the cost of acquiring a patent too great, possibly resulting in another inventor being awarded a patent for another's invention. Accordingly, it is vital that inventors hire lawyers who can file for a patent correctly the first time.

B. *Inventors Who Cannot Afford to File Should Publicly Disclose*

The reality for most small businesses is that filing an application for a patent is much easier said than done because of the costs associated with filing. It can take time for a small business to get the necessary money from investors or other avenues that will allow it to file a patent. In these situations, inventors will need to publicly disclose their inventions to start the one-year grace period. This will give the inventors one year to accumulate the funds necessary to file a patent application and to ensure the patent is detailed enough to protect them in case of a lawsuit. Enabling publication of the invention on a media that is publicly accessible, such as a newspaper or magazine, counts as a inexpensive disclosure.¹⁷¹ Unfortunately, this one-year grace period does not apply outside the United States, so the inventors would not benefit from patent protection in foreign countries. This is a risk worth taking for inventors in the United States, however, because the ability to patent elsewhere is more advantageous than not being able to patent at all.

Provisional applications are another option for inventors that can provide some of the same benefits of disclosing an invention while still keeping open the possibility of obtaining a foreign patent.¹⁷² Provisional applications can be filled out quickly and are cheaper than filing a regular nonprovisional patent application.¹⁷³ Like public disclosure, the provisional provides twelve-month protection for the invention, allowing the inventor to raise the necessary funds to file a regular application and assess the invention's commercial viability.¹⁷⁴ This twelve-month protection allows the inventor to sell his or her product or otherwise profit from it in some way while still having security against the invention being stolen.¹⁷⁵ However, if the inventor has not filed a regular application after twelve months, the provisional application is deemed abandoned by the PTO, and

¹⁷¹ *Id.*

¹⁷² Villasenor, *supra* note 168.

¹⁷³ *Id.*

¹⁷⁴ See *Provisional Application for Patent*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/patents/resources/types/provapp.jsp> (last visited Mar. 30, 2013).

¹⁷⁵ See *id.*

all the benefits that come with the provisional application are lost.¹⁷⁶ Additionally, even though a provisional application does not require as much detail as a regular patent application, if the provisional application does not contain sufficient detail, it will not be afforded any protection.¹⁷⁷ Provisional applications can be a useful tool for small businesses and individual inventors; however, they do entail increased costs over public disclosure.

C. Alternatives to Litigation with Non-Practicing Entities

Patent trolls by nature are especially problematic for small businesses because of the enormous costs that go into litigation. A NPE will often offer an inventor a licensing deal before commencing litigation.¹⁷⁸ This licensing deal will allow the inventor to continue selling his or her product at a price significantly lower than the cost of litigation.¹⁷⁹ Any licensing agreement will cut into an inventor's profits, but it is much more affordable than litigating with the NPE. If an inventor decides to agree to such a deal, it is a more cost-efficient way of dealing with trolls and something inventors should consider.

Some defensive strategies exist that could lead to a quick and relatively inexpensive, yet favorable, ruling if the inventor does decide to go through with litigation. For example, an inventor should first attempt to invalidate a patent on one of numerous grounds, such as inequitable conduct during the patent application process.¹⁸⁰ A patent will also be invalidated if a person of "ordinary skill in the art" could implement a predictable variation to prior art to discover the invention.¹⁸¹ By invalidating a patent, NPEs become unable to assert any claim against anyone.¹⁸² Furthermore, invalidating a patent avoids the long and expensive discovery process, saving inventors facing suit a significant amount of money.

Dealing with NPEs is an inevitable aspect of patent ownership. Unfortunately, the AIA does not take enough action to protect small businesses from potentially crippling lawsuits. For this reason, agreeing to a licensing deal is a valid option. While costly, it is a significantly cheaper option than litigation. If the inventor feels the need to protect its patent in

¹⁷⁶ *Id.*

¹⁷⁷ See Villasenor, *supra* note 168.

¹⁷⁸ Coursey, *supra* note 117, at 238–39.

¹⁷⁹ See *id.* at 241.

¹⁸⁰ *Id.* at 242; see also *Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1313 (Fed. Cir. 2008).

¹⁸¹ See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) ("A court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.").

¹⁸² Coursey, *supra* note 117, at 243.

court, however, attempting to invalidate the NPE's patents is the most cost-effective option at securing a quick and favorable result.

D. *Inventors Should Mark Their Patented Products*

Marking a product with a patent number serves as constructive notice for the existence of a patent.¹⁸³ Patent law has always encouraged marking products with U.S. patent numbers by restricting infringement remedies when there is a failure to mark.¹⁸⁴ Additionally, falsely marking a product is prohibited.¹⁸⁵ However, marking a product with an expired patent number will not be recognized as false marking, which is a change from the old system.¹⁸⁶

Additionally, the AIA now allows for "virtual marking," which is when patent owners mark their products with "Patent" or "Pat." and a reference to a website that lists the applicable patent numbers.¹⁸⁷ Further, only an inventor that suffers actual damages may sue for false marking.¹⁸⁸ Online virtual marking should lower the cost of complaining with patent markings, because it will be easier to perform a patent number search. Inventors should encourage manufacturers to take advantage of new virtual marking since it will reduce costs and better protect inventors from frivolous false marking suits.¹⁸⁹ Furthermore, patent holders must make sure that their patent-marking websites are continuously up to date and accurate.¹⁹⁰

VII. CONCLUSION

The America Invents Act represents a significant—and perhaps necessary—reform to the American patent system. Switching to a first-to-file system marks the most drastic change to patent law in the United States in decades. It eliminates review methods such as interference proceedings and replaces them with less costly measures. Additionally, it largely aligns patent law in this country to that of the rest of the world, which should make it easier and less costly for inventors to compete internationally. Furthermore, the creation of a micro entity and the fast-track examination process should make the patent application process more affordable and predictable for small business owners, because the fees for the micro entity

¹⁸³ *Virtual Patent Marking*, BRINKS, HOFFER, GILSON & LIONE (July 26, 2012), http://www.brinkshofer.com/news_events/3448-virtual-patent-marking.

¹⁸⁴ See Patterson, *supra* note 46, at 16.

¹⁸⁵ *Id.*

¹⁸⁶ Trilling, *supra* note 127, at 254.

¹⁸⁷ *Id.*

¹⁸⁸ See *id.*

¹⁸⁹ See *id.* ("By permitting virtual marking, Congress has made managing the patents that cover articles easier for patentees by simply listing them on a publicly accessible webpage.").

¹⁹⁰ *Virtual Patent Marking*, *supra* note 183.

label are reduced. The fast-track examination process will also greatly reduce the wait time for patent examination. Finally, the changes to the term “prior art” will make it easier for the PTO to determine the validity of a particular patent.

The switch to the first-to-file system was designed to streamline the process of filing for a patent both for the PTO and inventors while also cutting down on patent related litigation. While the new system is more predictable, overall, it does not achieve the AIA’s goal of making the patent system more accessible to small businesses and individual inventors. Small businesses do not have the resources to win the race to the patent office that has been created by the first-to-file system. The costs necessary to acquire a patent—mainly hiring a lawyer—make it very difficult to afford a patent application, even with the reduced fees. At the same time, large companies, like tech giants Apple and Microsoft, will very easily be able to file patent applications quickly and effectively. This disparity will negatively affect the individual inventors and small businesses while making it easier for big corporations to acquire patents. First-to-invent may not have helped small businesses, but first-to-file will not constitute a significant improvement.

Moreover, while the AIA creates low-cost alternatives to litigation in federal court, large corporations and NPEs will still be able to force small businesses in to court to defend their patents if they are unwilling to pay a licensing fee. Litigation is extremely expensive and can ruin small businesses and individual inventors, even if they are not infringing on any patents. More often than not, small inventors will be forced to agree to licensing agreements that will heavily cut into their profits because it is the only way they can avoid litigation. While limiting joinder in patent lawsuits hurts NPEs’ ability to file big lawsuits, small businesses simply cannot afford the discovery process of litigation.

The AIA increases the need for inventors to file their patent application as soon as possible. For small businesses, however, this is a difficult task, and unfortunately the decreased fees in the AIA do not address the main problem inventors have—affording patent attorneys. Nonetheless, once an inventor or small business has the means to file a patent application, it is imperative that they complete this right away. Publicly disclosing the invention will give protection to inventors for a year, and this is an option smaller businesses must consider. However, it will make obtaining a patent internationally much more difficult. Overall, the AIA created a race to the patent office, and in many aspects this will be a more efficient and predictable patent system. Unfortunately, small inventors will likely not reap the benefits of the changes in the same way as large corporations and will remain relatively unprotected from frivolous and company-killing lawsuits from NPEs.

