

Congress of the United States
U.S. House of Representatives
Committee on Small Business
2361 Rayburn House Office Building
Washington, DC 20515-6515

Memorandum

To: Members, Committee on Small Business
From: Committee Staff
Date: May 13, 2013
Re: "Patent Reform Implementation and New Challenges for Small Businesses"

On May 15, 2013 at 1:00 p.m., the Committee on Small Business will meet in Room 2360 of the Rayburn House Office Building to examine the changing landscape of patent law and its effects on small firms. The American Invents Act (AIA)¹ signed into law on September 16, 2011, made significant changes to the procedures by which the United States awards patents. Given these changes, the hearing will address how the procedural changes affect the ability of small businesses to obtain patents. In addition, the hearing will examine how patent assertion entities (PAEs) affect small firms and whether additional changes are needed in patent procedures to ameliorate the adverse consequences of PAEs on small firms.

I. Background on Patents

Innovation has consistently been a critical competitive advantage and a driver for long-term economic growth in the United States. Absent a mechanism to prevent a non-inventor from commercially exploiting an invention, there would be no economic incentive to create new ideas and inventions. The Constitution explicitly recognizes this necessity and authorized Congress "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."² Although this constitutional grant includes both patents and copyrights, this memorandum will focus on patents.

A patent may be granted to "whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement."³ In the United States there are three types of patents available for inventors: utility patents,⁴ design patents,⁵ and plant patents.⁶ Once issued, a patent constitutes a property right granted by the

¹ Leahy-Smith America Invents Act, Pub L. No. 112-29, 125 Stat. 284 (2011).

² U.S. CONST. art. I, § 8, cl. 8.

³ 35 U.S.C. § 101.

⁴ Utility patent is a right granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, composition of matter, or any new use improvement thereof. *Id.* These are what people generally think of when they think about patents.

⁵ Design patent is a right granted to anyone who invents a new, original, or ornamental design for an article of manufacture. *Id.* at § 171.

United States to an inventor “to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States”⁷ for a limited time.⁸ Someone who violates this statutory prohibition is considered to be infringing on the patent.⁹

Congress created the United States Patent and Trademark Office (USPTO) to manage the process of awarding patents, including resolving disputes among multiple claimants for the same invention.¹⁰ In 2012, there were 576,763 applications,¹¹ which resulted in 275,996 new patents.¹² The rise in applications has resulted in a long backlog of patent applications at the USPTO. As of March 2013, the USPTO has a reported backlog of 607,482 applications.¹³ As a result, the USPTO takes more than 31 months to process a patent application.¹⁴

It is critical to remember the significant role that small businesses play in generating new ideas and inventions that result in the grant of patents by the USPTO.¹⁵ Furthermore, patents granted to small innovators are often more significant in a variety of measures including growth, citation impact, and originality.¹⁶ Therefore, it is imperative that the procedures for the award of patents set out by Congress and implemented by the USPTO do not raise undue burdens on small businesses or interfere with the stimulation of innovative ideas and inventions.

II. AIA

As already noted, there is a significant backlog in patent reviews. Given the fact that patents are a key component of economic growth and American competitiveness, Congress realized that changes were necessary to maximize the effect patents have on the American economy.¹⁷ The result is the AIA which included a number of provisions aimed at strengthening the quality of patents and improving the overall process of reviewing and granting patents. Some

⁶ Plant patent is a right granted to anyone who invents or discovers and reproduces any distinct and new variety of plant. *Id.* at § 161.

⁷ *Id.* at § 154(a)(1).

⁸ Generally, patents are granted a 20 year term from the date the application was filed unless the application contains a specific reference to an earlier filed application under *Id.* at §§ 120, 121, 365(c). Individuals can determine the length of patent protection by using the USPTO’s Patent term calculator at http://www.uspto.gov/patents/law/patent_term_calculator.jsp.

⁹ 60 AM. JUR. 2D *Patents* § 782 (2013).

¹⁰ <http://www.uspto.gov/about/index.jsp>.

¹¹ This is an increase of 62 percent from the number of applications received in 2002.

http://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_counts.htm.

¹² To give some perspective, the total number of patent applications since the country was founded is over 27 million and the total number of patents granted is over 9 million.

http://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_counts.htm.

¹³ <http://www.uspto.gov/dashboards/patents/main.dashboard?>

¹⁴ *Id.*

¹⁵ ANTHONY BREITZMAN & DIANA HICKS, AN ANALYSIS OF SMALL BUSINESS PATENTS BY INDUSTRY AND FIRM SIZE v (2008) (Contract No. SBAHQ-07-Q-0010), available at <http://archive.sba.gov/advo/research/rs335tot.pdf> (noting that within emerging clusters small firm patents account for about 1 in every 37, as opposed to large firms patents which are 1 in every 117).

¹⁶ *Id.* at 7-9.

¹⁷ H.R. REP. NO. 112-98, pt. 1, at 40 (2011), available at <http://www.gpo.gov/fdsys/pkg/CRPT-112hrpt98/pdf/CRPT-112hrpt98-pt1.pdf>.

of the changes are: transitioning from first-to-invent to first-inventor-to-file;¹⁸ reforming the post-grant review process conducted by the USPTO; and improving the process for bringing federal court lawsuits involving infringement.

The AIA also recognized the unique importance of small business innovations to the economy. To increase small businesses' ability to obtain patents, the AIA created a Patent Ombudsman within the USPTO to provide a direct resource and support for small business innovators.¹⁹ The AIA also addressed the fee structure at the USPTO by providing the USPTO with the ability to adjust fees for searching, examining, appealing, and maintaining patent applications;²⁰ retaining the existing 50 percent fee reduction for small business filing a patent application and establishing a 75 percent discount on applications from micro-entities.²¹

A. First-to-File

The most notable change from the AIA is the transition to first-to-file; the applicant who is the first to file a patent application with the USPTO will be awarded the patent.²² This changed the longstanding United States position from first-to-invent which granted the award to the applicant who first proved creation of the invention. With the adoption of the first-to-file system, the United States patent system is now in agreement with the first-to-file system used in the rest of the world.²³

The first-to-file rule went into effect on March 16, 2013, and applications received before that date were subject to the first-to-invent principle.²⁴ According to a USPTO official, the agency received about three times the weekly average of patent applications (around 11,000) for the three weeks prior to the March 16 first-to-file implementation date.²⁵

The first-to-file system has both benefits and drawbacks for small businesses. Some small firms believe the need to file quickly will jeopardize product development and is a race catered to large corporations.²⁶ Many other small businesses believe that moving to first-to-file

¹⁸ AIA, § 3, 125 Stat. at 284 (2011). Please note this is colloquially referred as "first-to-file" and will be referred to as such for the remainder of this memorandum.

¹⁹ *Id.* at § 28, 125 Stat. at 339.

²⁰ *Id.* at § 10, 125 Stat. at 316.

²¹ *Id.* at § 10(b), 125 Stat. at 316-317. Micro entity is defined under § 10(g), 125 Stat. at 318, as an applicant who certifies that they are small entity under USPTO regulations, have fewer than 4 patents, have a gross income not exceeding 3 times the median household income by IRS standards for the preceding calendar year, and will not grant, convey, or assign the patent to an entity or individual who exceeds the IRS cap.

²² *Id.* at § 3, 125 Stat. at 285.

²³ H.R. REP. NO. 112-98, pt. 1, at 40.

²⁴ Changes to Implement the First Inventor to File Provisions of the Leahy-Smith America Invents Act; Correction, 78 Fed. Reg. 16,182 (March 14, 2013) (to be codified at 37 C.F.R. § 1.55(c)).

²⁵ Official data is not currently available from the USPTO. This information was verified by an agency spokesperson and recent news publications. Erin Geiger Smith, *U.S. Patent Office Saw Application Boost Before 'First to File'*, THOMPSON REUTERS, March 19, 2013, available at http://newsandinsight.thomsonreuters.com/Legal/News/2013/03_-_March/U_S_patent_office_saw_application_boost_before_first_to_file_switch/.

²⁶ Eilene Zimmerman, *Business Owners Adjusting to Overhaul of Patent System*, N.Y. TIMES, Feb. 8, 2012, available at <http://www.nytimes.com/2012/02/09/business/smallbusiness/business-owners-adjusting-to-patent->

will increase access to funding and reduce patent infringement claims after a patent is granted thereby reducing the potential for devastating costs associated with patent litigation.²⁷

B. Post-Grant Review

The AIA also establishes a new post-grant review procedure which amends the way patents are reviewed after they have been awarded.²⁸ Under this post-grant review, within nine months after a patent has been issued a non-patent holder may file a petition to challenge the issuance of a patent.²⁹ The AIA enables a party that goes through this post-grant review process to prohibit an individual from asserting a new claim in federal court that could have been raised under the post-grant review process once a final decision has been made in the post-grant review process.³⁰ This provision provides an opportunity for patent review at an administrative level which is cheaper than filing a challenge to the validity of the patent in federal court. As the cost is less prohibitive, this should benefit small firms. Furthermore, small firms that survive post-grant review will be protected from some burdensome federal court litigation by claiming that the federal court lawsuit is foreclosed due to decisions made in the post-grant review.

The changes already discussed address the issue of obtaining a patent. It does not address the problems that small businesses may face from entities that already own patents and accuse them of infringing on those patents. Fear of infringement litigation may stifle innovation by small businesses and is an issue that Congress attempted to address in the AIA.

III. PAEs and Small Businesses

Currently, as small firms attempt to foster innovation they are becoming the targets of patent infringement lawsuits by a subset of non-practicing entities (NPEs), known as patent assertion entities (PAEs or “patent trolls”).³¹ The term “NPEs” encompasses a broad portion of “patent owners that primarily seek to develop and transfer technology.”³² These entities generally hold and license the use of patents but may not have either invented the patented item, or if they did, are not interested in commercial production.³³ Notably, not all NPEs are viewed negatively and historically, NPEs aided small firms and inventors by protecting their patent

[system-overhaul.html?pagewanted=all](#). See also Ashby Jones, *Inventors Race to File Patents*, WALL ST. J., Mar. 14, 2013, available at <http://online.wsj.com/article/SB10001424127887324077704578360681887241150.html>.

²⁷ Eilene Zimmerman, *Business Owners Adjusting to Overhaul of Patent System*, N.Y. TIMES, Feb. 8, 2012. See also Ashby Jones, *Inventors Race to File Patents*, WALL ST. J., Mar. 14, 2013.

²⁸ Prior to the AIA, patents either could be challenged in federal court or in reexamination at the USPTO. USPTO reexamination under the previous system was often viewed as restrictive, costly, and generally prohibitive which caused few parties to utilize this avenue over court. For a fuller explanation, see H.R. REP. NO. 112-98, pt. 1, at 45 (explaining reasons for amending post-grant review proceedings).

²⁹ AIA, § 6, 125 Stat. at 299-313.

³⁰ 35 U.S.C. §§ 301, 308. In legal jargon this term is known as “estoppel.”

³¹ Tracie L. Bryant, *The America Invents Act: Slaying Trolls, Limiting Joinder*, 25 HARV. J. L. & TECH. 673, 680, (2012) [hereinafter Bryant, *Slaying Trolls*].

³² FEDERAL TRADE COMMISSION, THE EVOLVING IP MARKETPLACE 50 n.2 (Mar. 2011), available at <http://www.ftc.gov/os/2011/03/110307patentreport.pdf>.

³³ JAMES BESSEN & MICHAEL J. MEURER, BOSTON UNIV. SCH. OF LAW, THE DIRECT COSTS FROM NPE DISPUTES 3 (June 2012), available at http://www.bu.edu/law/faculty/scholarship/workingpapers/documents/BessenJ_MeurerM062512rev062812.pdf.

rights by aiding novice firms or inventors with limited resources in collecting licensing fees and enforcement.³⁴

Today, this historical trend has shifted with some NPEs instead targeting small firms and individual inventors rather than aiding them. Generally, patent trolls are “viewed as a problem that plagues the patent system and stifles innovation.”³⁵ This subset of NPEs, the PAEs purchase or hold patents as assets, which they do not seek to commercialize, rather exploiting the patent for profit through obtaining licensing fees from companies who may be using the patent.³⁶

The process by which PAEs target businesses typically begins with a patent troll sending a demand letter to a company. This demand letter generally asserts its rights as a patent holder, claims the recipient is infringing on the patent, and demands cessation of such infringement unless a licensing fee is paid.³⁷ If no such arrangement is forthcoming, the demand letter will threaten a lawsuit. Given the choice between a licensing fee or the costs of litigation, many firms, especially small businesses, will opt to pay the licensing fee.

Yet, the assertion by PAEs of their rights is often not supported by the underlying patent. Research reveals that PAEs generally win only eight percent of their cases.³⁸ Therefore, statistical data suggests that if firms receiving patent troll demand letters resist paying licensing fees and pursue litigation the outcome may be favorable. However, for small firms, this option may be less appealing as a small firm may face difficulty obtaining investors or producing a good, or a combination thereof, that relies on a patent which is the subject of litigation.

A recent study by Boston University School of Law echoes the concerns of the changing role of NPEs noting that the costs imposed on small firms due to litigation makes “it even less likely that innovative start-ups are net beneficiaries of NPE activity.”³⁹ The study found that in 2011 the direct costs of patent assertions by these entities was approximately \$29 billion.⁴⁰ Notably, small firms faced the bulk of these assertions as “82% of the defendants had less than \$100 million in revenue and these accounted for 50% of the defenses.”⁴¹

As infringement suits by PAEs continue to rise many patent holders feel that the AIA did not sufficiently address this issue. The AIA did include one provision which aimed to reduce the occurrence and costs of federal court litigation over patents by restricting patent owners from suing multiple firms in one lawsuit if there is not a substantial factual link, besides the claim of

³⁴ *Id.*

³⁵ Bryant, *Slaying Trolls*, *supra* note 31, at 678.

³⁶ “Patent trolls often acquire patents from bankrupt firms or independent inventors.” Bryant, *Slaying Trolls*, *supra* note 31, at 677. *See also* FEDERAL TRADE COMMISSION, THE EVOLVING IP MARKETPLACE 60 (2011).

³⁷ If the patent holder agrees to receive a fee for use of the patent, it no longer is considered infringement. 60 AM. JUR. 2D *Patents* § 1038 (2013).

³⁸ Bryant, *Slaying Trolls*, *supra* note 31, at 679.

³⁹ BESSEN & MEURER, *supra* note 33, at 5.

⁴⁰ *Id.* at 2.

⁴¹ *Id.*; accord COLLEEN CHIEN, SANTA CLARA UNIV. SCH. OF LAW, STARTUPS AND PATENTS TROLLS 2 (2012), available at <http://digitalcommons.law.scu.edu/facpubs/609/> (noting that 55 percent of unique PAE defendants have revenue under \$10 million).

patent infringement, among defendants.⁴² This prohibition on “joinder” in the AIA limits the number of defendants that a plaintiff can bring together, or “join,” in one lawsuit.⁴³ The primary goal of the joinder provision was to promote innovation by reducing patent troll litigation by forcing PAEs to file separate individual actions against each claimed infringement.⁴⁴ The authors of the AIA presumed that patent trolls would either not sue or only sue those 8 percent of claims that truly would hold up in court.

Despite the worthy goal, the AIA’s joinder provision does not adequately deter PAEs, thus creating an uncondusive environment for establishing entrepreneurial endeavors that harness innovative ideas and allow startups to thrive. Importantly, this rise in assertion of questionable patent rights against small firms also has potentially negative effects on innovation and economic growth. Innovative firms, such as start-ups in the high tech sector, have a broad economic footprint, creating 4.3 jobs in other local industries for every 1 high-tech job.⁴⁵ Unfortunately, as monetary resources are shifted to pay litigation costs or licensing fees, there is a drop in a small firm’s ability to hire and generate local economic growth.

IV. Conclusion

The merger among innovation, new firms, and the patent system is intrinsically linked; as all are necessary to perpetuate economic growth. The AIA sought to strengthen the patent process and promote innovation including specific provisions to aid small firms, but unfortunately it did not address every issue faced by small businesses. Most notably, the rise of lawsuits brought by PAEs on small businesses creates a real threat to the development of innovation and growth of the economy. This hearing will provide Committee members the opportunity to better understand the changes from the AIA and to identify solutions to address the growing trend of potential frivolous lawsuits against small innovators.

⁴² AIA, § 19, 125 Stat. at 332-333; *see also* Bryant, *Slaying Trolls*, *supra* note 31, at 681 (requiring same facts and transactions for combining defendants cases).

⁴³ Joinder is a legal term that refers to combining two or more lawsuits into one trial or hearing.

⁴⁴ Bryant, *Slaying Trolls*, *supra* note 31, at 680.

⁴⁵ *Innovation as a Catalyst to New Jobs: Hearing Before the Subcommittee on Economic Growth, Tax and Capital Access of the House Comm. on Small Business*, Statement of Michael McGeary at 1, 113th Cong. (2013), available at http://smallbusiness.house.gov/uploadedfiles/4-18-2013_mcgeary_testimony.pdf.