

**Committee on Small Business
United States House of Representatives**

Prepared Statement and Testimony by
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On the Topic of

Patent Reform Implementation and New Challenges for Small Businesses

May 15, 2013
Washington, DC

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My academic research interests focus on patent law, intellectual property law and internet law. In addition to traditional academic publications, I am the founder of the *Patently-O Patent Law Blog* that has a daily circulation of over 30,000 and is regularly read by most US patent law practitioners. Prior to joining the University of Missouri faculty, I was a visiting professor at Boston University School of Law and worked as a patent attorney at a major intellectual property law firm in Chicago where I represented inventors pursuing patent protection as well as clients litigating claims of patent infringement. Prior to entering law school, I served as a United States Peace Corps Volunteer in rural Ghana, West Africa; worked as a manufacturing engineer in upstate New York; and conducted research on microgravity combustion with NASA.

I am not a registered lobbyist, I do not represent any clients, and I do not own stock in any particular company with a vested interest in patent rights (beyond broad-based mutual funds).

I. Introduction:

The US Patent System is not so different from other areas of business regulation. Entrenched market leaders have a competitive advantage in a costly and complex regulatory world where legal nuances and personal connections make a major difference in the flow of regulatory approval and enforcement. In this arena of repeat players, small businesses are at a comparative disadvantage. Some have called for elimination of the patent system as a whole as the only clear mechanism for allowing competition without undue regulation.¹ However, a more reasoned and Constitutionally appropriate approach looks for ways to simplify the patent system so that the process of obtaining and enforcing patent rights is more straightforward and transparent. At the same time, reforms are needed to make it easier to identify and eliminate bad patents.

Patents offer a particularly attractive policy tool because the regulatory structure is entirely funded by user-fees. This is in stark contrast to other government incentive mechanisms such as direct grants or tax loopholes. The societal cost of the patent system comes from the higher prices of patented goods and from the potential chilling of competitor innovation. The policy challenge then is in finding the sweet spot where patent rights are strong enough to incentivize but not so strong as to cause major market harm. Drafters of the Constitution made this balance by suggesting "exclusive rights" for inventors but only for "limited times."² Today we continue to search for the right levels of rights and limits.

Small businesses are on several sides of the patent debate. Innovative companies obtain patents to protect their market space and to drive royalty revenues. However, those same companies face threats from the tens of thousands of other US patent holders who are protecting their own positions.

II. Patenting by Small Businesses:

The baseline of a competitive marketplace is free and open competition. Patent rights serve as a limited exception to that baseline in order to provide additional incentives for invention and commercialization of those innovations. The exclusive rights offered by patent protection provide a powerful foothold for small businesses who, though innovative, may not-yet be able to fully realize the market potential of their product or service. Patents also have the potential of serving as a commodity of exchange for small

¹ See, Michele Boldrin and David K. Levine, *The Case Against Patents* (2012) at <http://research.stlouisfed.org/wp/2012/2012-035.pdf>.

² United States Constitution, Art III, Section 8, Clause 8.

businesses who focus on developing new technology rather than new products as well as a signal of innovative activity for potential investors.

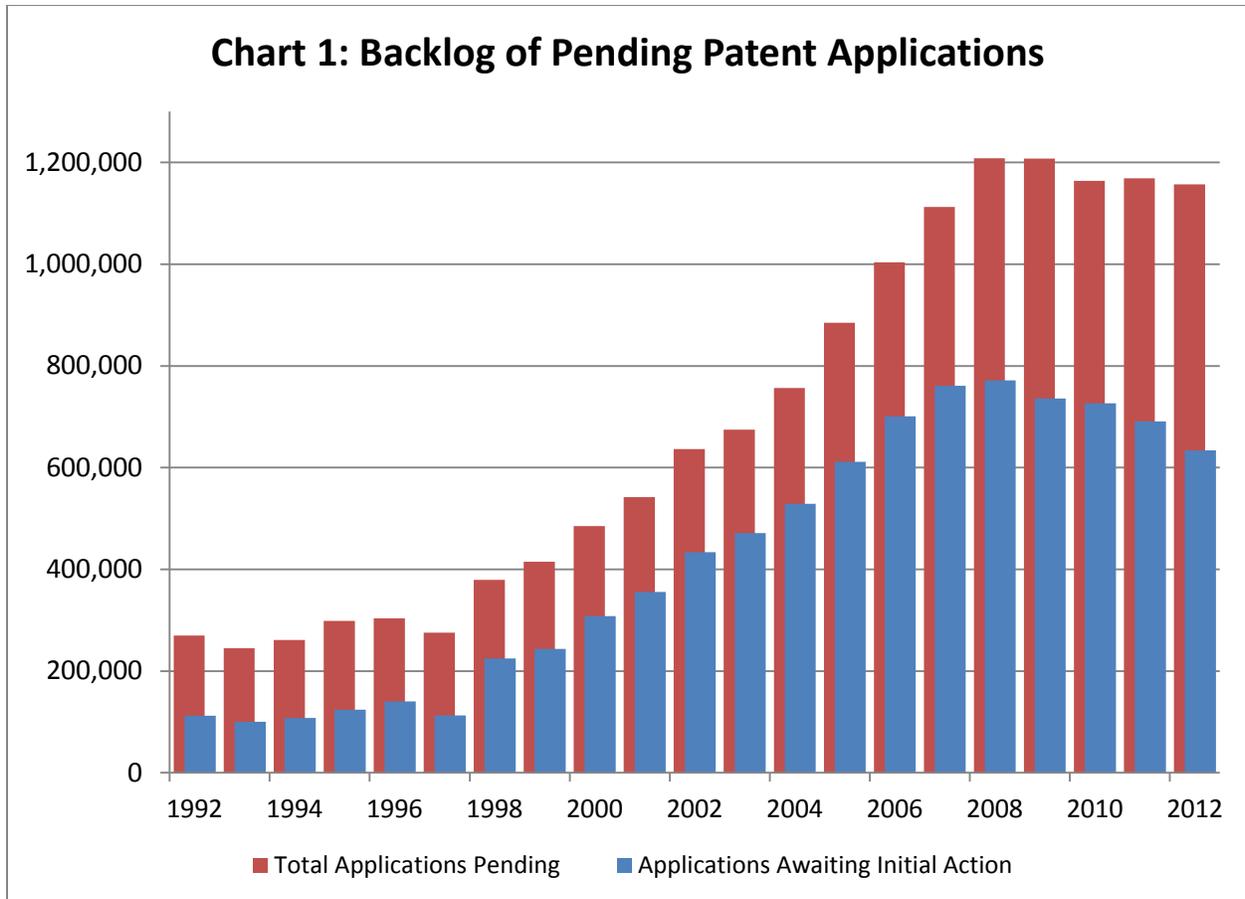
Substantive Examination: All US patents pass through a substantive examination process. To be patentable, an invention must be a non-obvious advance over what was known in the prior art.³ The recently effective First-to-File system provides a strong incentive for applicants to quickly file for patent protection in order to avoid losing rights.⁴ However, a patent applicant has no enforceable patent rights until a patent issues. Even then, federal patent lawsuits have become incredibly expensive. Pushing this expense is the institutional mindset that every patent is susceptible to challenge.

Backlog and Delay: On average, it takes more than three years for a patent application to pass through the USPTO system.⁵ The bulk of that delay is due to a large backlog of patent applications pending review at the USPTO. Chart 1 shows the size of this backlog going back twenty years. Although the USPTO is focused on addressing that backlog, the hole remains large. One immediate solution offered by the USPTO is prioritized examination. For a payment of \$4,000 (or \$2,000 for a Small Entity), a patent applicant can move to the prioritized application queue and largely bypass the backlog queue.

³ 35 U.S.C. § 103.

⁴ Leahy-Smith America Invents Act of 2011, fully effective March 16, 2013. Although the prior system was a first-to-invent system, it also provided substantial incentive to quickly file for patent protection.

⁵ Dennis Crouch, Average Pendency of US Patent Applications, Patently-O at <http://www.patentlyo.com/patent/2013/03/average-pendency-of-us-patent-applications.html>.



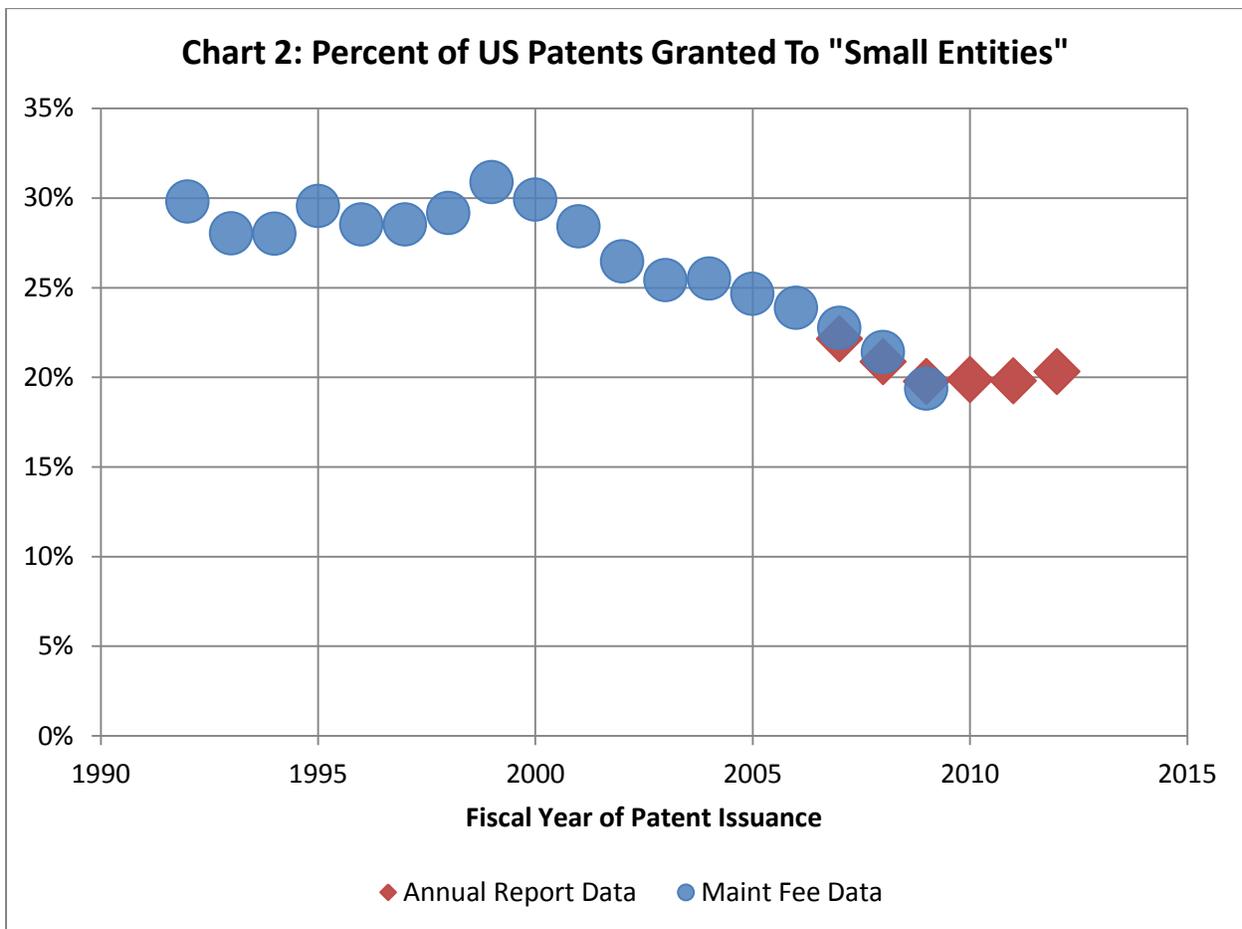
US law provides that inventors are the initial owners of patent rights. Most often, rights are quickly transferred to the inventor's company as required by the relevant employment or partnership agreement. In general, patents are fully transferrable and can be bought, sold, divided and licensed. For the most part, the law of patents does not shift according to the patent owner's identity. However, the law does provide for 50% reduction of most patent fees for patent applicants with "Small Entity" status.⁶ "Micro Entity" applicants now receive a 75% reduction in fees. However, few innovative small businesses will qualify for Micro Entity status because of the low income requirements.⁷ The greatest cost for Small Business patent applicants is in patent attorney fees and the conventional wisdom is that a quality patent attorney is an extremely important element for ensuring successful patenting.

⁶ 37 C.F.R. 1.27.

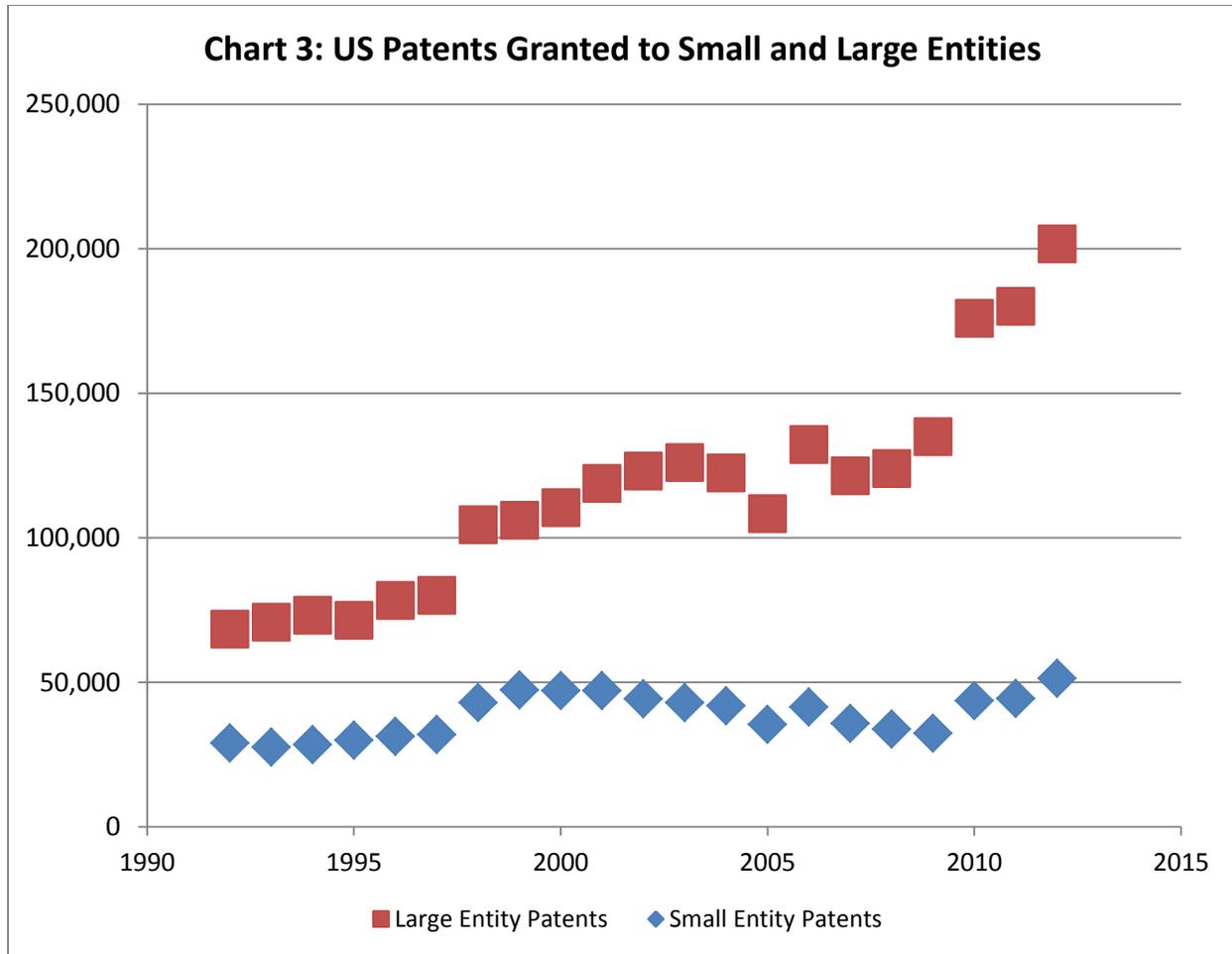
⁷ Oddly, the law provides that patent applications coming from US Universities will qualify for Micro Entity status.

Abandonment by Small Entities: Apart from post-grant maintenance fees (renewal fees); the USPTO generally sets its fees for Small Entity users well below its cost. Up until the most recent fee changes, maintenance fees have been relatively inexpensive. Still, even with a 50% discount, Small Entities are much more likely than Large Entities to abandon their patent rights rather than pay ongoing USPTO fees.

Decrease in Percent of Small Entity Patents: Over the past decade, the percentage of patents being issued to Small Entities has dropped precipitously from around 30% in 2000 down to 20% today. Chart 2 shows a time series of the percent of patents granted to Small Entities and the relative drop in Small Entity patenting is visually apparent from the chart.⁸ The percentage change is does not reflect a major actual decrease in Small Entity filings but instead is better explained by the increase in US patent filing by Large Entities during that time -- especially by non-US Large Entities. Chart 3 shows the number of patents granted to Large and Small Entities each year.



⁸ In order to get a more full scope of coverage I combined two sources of data for this chart, (1) USPTO annual reports from 2011 and 2012 (Table 11) and (2) an analysis of maintenance fee payments.



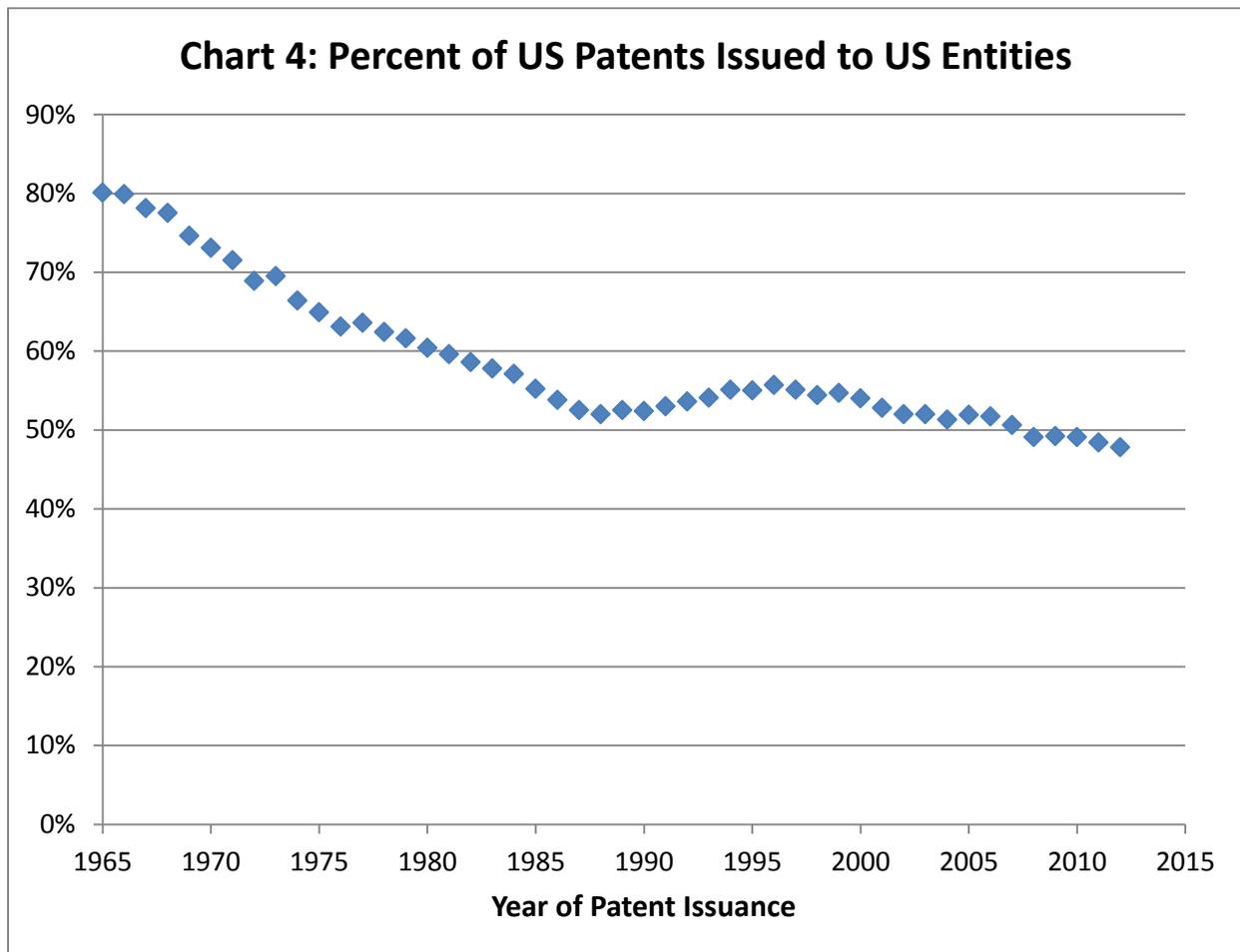
Growth and Maturation of Small Entities: A patent issued to a Small Entity has an estimated 10-20% chance of shifting to being held by in large-entity status. That change may occur through organic growth of the owner; through acquisition by a larger entity; or by licensing the patent right, for instance. Moving forward, these shifting patents may serve as a useful source of information on growth and maturation of small business enterprises.

Foreign Influence on the US Patent Regime: Through a number of reciprocal international agreements, beginning with the Paris Convention, the US has promised citizens of other countries access to the US patent system. Under these agreements, an innovative foreign company seeking exclusive rights in the US market could obtain US patent protection and enforce those rights in US courts against US competitors. Despite the offer of rights, the bulk of US patent filers have always been for US originated inventions. This practical statistic meant that US patent reform primarily impacted US companies and US inventors. Over the past six years, this statistic changed, and for the

first time in history, the majority of US patents have been issued on foreign-originated inventions. (Chart 4).

This decline in US-centric dominance of the US patent system could serve as a sign that US innovation needs additional encouragement. In addition, however, the decline may signal a need to change our outlook on the role of patent rights in US policy. Certainly, the offer of patent rights encourages innovation and disclosure of new inventions. However, this incentive is felt around the world – encouraging companies in Australia or Germany to innovate in order to capture an exclusive slice of the US market.⁹

Of note, while foreign small businesses still qualify for the benefits of Small Entity Status, small foreign corporations are much less likely to file for US patent protection than their larger counterparts. The result is that a focus on improving conditions for small entity patentees continues to primarily benefit US entities.



⁹ See *Commonwealth Sci. & Indus. Research Organisation v. Buffalo Tech.*, 542 F.3d 1363 (Fed. Cir. 2008) (Australian government entity suing on its US software related patent in the Eastern District of Texas).

III. Patent Trolls and Finance-Backed Patent Licensing Companies

Over the past ten years we have seen a rise in the activity of patent licensing companies - often termed patent trolls. Many of these licensing entities are the byproduct of inventive ideas that originally failed in the marketplace but whose patents remain. Other patent licensing companies have formed around the model of buying-up hundreds or thousands of patents and then seeking to license the accumulated portfolio. These processes have been fueled by a growing influx of investment funds that pay for both acquisition and enforcement through the use of contingency fee litigators. In these situations, there is a strong incentive to make the patents work to generate revenue because neither the investors nor the litigators typically get paid unless the patents are licensed or enforced by a court. Over the past few years, the majority of new patent infringement lawsuits have been filed by patent licensing companies seeking profits rather than competitor versus competitor lawsuits.

For small businesses, the major benefit of this change is a revitalized marketplace for patents. In this new regime, an innovative company can turn its innovations into a royalty stream even without delivering an actual product to consumers. Unfortunately, the market for patents is not standardized and small businesses suffer from a tremendous information asymmetry. Again, transparency and accountability are mechanisms to smooth these transactions. The USPTO can facilitate this process by ensuring that the real party in interest of a patent is publicly disclosed and by improving patent clarity in a way that makes it easier to be certain as to the scope of a party's patent rights.

Although the potential bankroll of large companies make them more often the subject of patent litigation, small businesses also face the threat. And, thousands of small and mid-sized companies are sued for patent infringement each year -- both by competitors and by patent licensing companies. Today, many cases settle in an unsatisfying way with the accused infringer paying a settlement fee simply in order to avoid the high cost of fully defending the lawsuit. One solution here again is clarity and transparency. Although no one enjoys paying royalties, the situation is more palatable when the scope of the patent and the value of the innovation are clear. Unfortunately, few patents today call-out the actual inventive concept or clearly delineate the scope of what is and what is not covered by the patent right. It is within the USPTO's power to address these concerns directly as part of the examination process. The hope here is that patents with well-defined scope will also help develop the market for patents and patent licensing in a way that leads to market transactions without the need for wasteful litigation.

A further element of clarity also calls for better notice regarding patents of public concern. Large entities and entrenched players already share information. However, some have called for a more public database of patent enforcement attempts that would allow small business understand common risks of operation and to collaborate in challenging patents being asserted across an industry.

Everyone recognizes that the USPTO issues a number of patents that - if challenged - would likely be found invalid. However, it is expensive to challenge bad patents. As part of the America Invents Act of 2011, Congress implemented a system of *post grant* and *inter partes* reviews. These new post grant opinions were intended as cost-effective mechanisms for challenging wrongly-issued patents. Unfortunately, the USPTO has set the filing fees for these reviews at a cost that is prohibitive for small businesses and public interest groups wanting to challenge patents. The filing fees for a post-grant review is \$30,000 and an *inter partes* review is \$23,000 with no discount on either for small entities. That fee structure is unusually large -- especially in cases where the patent is clearly invalid.

One factor that makes patents so powerful is that there is no need to show copying or even knowledge of the patent in order to prove infringement. From this frame-of-reference, patent infringement appears akin to a strict-liability-tort. In addition to the clarity-of-rights discussed above, I would propose a focus on adding some peace-of-mind for small business owners by (1) ensuring the availability of private insurance to guard against claims of innocent patent infringement and (2) better standardize and publicize contractual indemnification for downstream users and retailers.

Thank you.