

ISSUES FACING

The Patent Reform Act of 2007: **Responding to Legitimate Needs** or **Special Interests?**

The "Patent Fairness" Issue **An Analysis** by Pat Choate, Ph.D. Manufacturing Policy Project

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Pat Choate holds a doctorate in economics from the University of Oklahoma and is the author of eight books on economic development and public policy. In 2005, his most recent book *Hot Property* was published by Alfred A. Knopf. It traces the role of intellectual property in U.S. economic development. In May 2008, Knopf will release his next book *Dangerous Business: The Risks of Globalization for America*.

Between 2002-2006, Choate wrote three studies on intellectual property for the U.S.-China Economic and Security Review Commission. Most recently, he is the author of "The Global Publication of U.S. Patent Applications", an analysis funded by the Small Business Administration as part of a larger report: "The Crisis in Intellectual Property Protection and China's Role in that Crisis," The Trade Lawyers Advisory Group, 2007.

A Letter From USBIC Educational Foundation President Kevin Kearns

Patent reform, usually an obscure, complicated topic, has become a hot issue on Capitol Hill this year. The Patent Reform Act of 2007, which has passed the House and is now under consideration in the Senate has not been thoroughly vetted with all affected sectors of the economy – a process past Congresses have insisted upon before making major change to the patent system.

In this excellent paper, Dr. Pat Choate, an economist and author specializing in patent issues and the money politics that now infect our nation's capitol, uses factual research to examine the arguments in favor of patent "reform" that are being spread by the Coalition for Patent Fairness, the organization representing Big Tech corporations on the issue. Dr. Choate, in his usual incisive fashion, does a thorough and professional job refuting the claims of CPF that the patent system is broken and the need for change is urgent. I think the refutation is definitive.

These Big Tech multinationals were themselves start-ups with a few patents and a few dreams not that long ago, and do not need to alter the U.S. patent system to conform to their business model at the expense of other models. Simply put, do some of the most profitable corporations in America need to add marginally to their bottom lines by undermining the patent protections that a full range of other companies depend upon for their livelihood – not to mention their employees? Having made it to the top, should they be permitted to deny the next generation of small technology innovators the opportunity to climb the American ladder of success?

The 217-year-old U.S. patent system has its roots in the Constitution and a bill passed in April, 1790 by the first Congress. It has been perhaps the single most important instrument in allowing the United States to achieve its preeminent place in the world economy. Over the years it has been updated continuously but judiciously, so as not to harm America's innovation engine. Now a group of Big Technology companies are proposing significant changes that if enacted would seriously undermine a system that has brought unparalleled material progress to the United States and the American people and assured our national security.

Protecting American inventors, whose innovations have made the United States the envy of the world, must remain the focus of the patent system, as was intended by the Founding Fathers. The patent system is, in a sense, an economic ecosystem, where large changes cannot be easily absorbed without unbalancing the system and doing serious damage to some participants.

Congress must bear in mind the principle of first, doing no harm to the existing system. The patent reform bill under consideration in the House and the Senate makes the infringement of patents easier, and lessens the penalties if caught. This approach

might make life easier for the Big Tech companies and fatten their balance sheets, but it will also have a detrimental long-term impact on American innovation and the U.S. economy as a whole.

The patent issue is simply too important to the nation's economy to get wrong. Dr. Choate's analysis strongly indicates that Congress must hold off on passing patent reform legislation now and return to the drawing board. The current system will work just fine in the interim – as it always has. Legislation containing more balanced improvements to our patent system will provide real long-term benefits to the full range of American innovators and help create good jobs across the American economy. Those must be Congress's primary goals in any effective patent reform bill – in order to keep our nation highly competitive in the global economy.

Kevin L. Kearns President USBIC Educational Foundation October 30, 2007

Introduction

Former Federal Reserve Chairman Alan Greenspan has observed in several recent speeches and in his new book, *The Age of Turbulence,* that "market economies require a rule of law... though laws can never be fixed in perpetuity." While details of law need to change over time as societies and economies evolve, he writes, the U.S. has chosen "to lessen legal uncertainty by embedding our fundamental principles in a constitution, which we made difficult to amend."

No legal principle is more fundamentally embedded in U.S. law than that providing for the "right to exclusive use" by authors and inventors – copyrights and patents. It is explicitly provided for in the U.S. Constitution, which also authorizes Congress to set the terms of that "right" - the subject of this paper.

In recent decades, Greenspan notes, the U.S. economy has been undergoing a fundamental transition as the portion of the total output of the economy that is essentially conceptual rises and the portion that is physical declines. Studies by Ocean Tomo, a consultancy, reveal that almost 80 percent of the market value of the S&P 500 companies today is composed of their intangible assets: patents, copyrights, trademarks, and trade secrets.¹

Greenspan concludes that **one of the basic economic challenges the United States** faces over the coming quarter-century is to sort out its laws governing and protecting intellectual property rights.

Indeed, the most important economic decision the 110th Congress currently faces is whether to enact **The Patent Reform Act of 2007** (H.R. 1908 and S. 1145).

Thoughtful examination reveals that this proposed legislation does not rise to the challenge that Alan Greenspan has identified. These bills have three core features:

- 1. They would change the calculations of damages imposed on patent infringers in a way that will drastically limit the amounts they must pay patent owners;
- They would create a new post-grant, quasi-judicial review process that will provide infringers new opportunities to challenge patents that have already issued;
- 3. They would change the rules on venue where a patent holder can sue an infringer in a way that will favor infringers over patent owners.

The primary advocates of this historic alteration of U.S. patent law are a group of Big Tech corporations operating together as the Coalition for Patent Fairness (CPF).

¹ "Innovation Measurement," James E. Malackowski, Ocean Tomo, LLC, Chicago, Illinois, 2007.

In this paper, I analyze the finances and actions of the seven founding corporations of that coalition. If patent laws truly require the drastic changes that would be mandated by **The Patent Reform Act of 2007**, the justification would be obvious in those corporations' experiences. But in fact, they are not.

My conclusion is that rather than trying to alter their business practices to conform to existing U.S. patent laws, these corporations are trying to alter those laws to fit their business model.

The stage for this legislative attempt was set earlier this decade, when several prominent organizations, notably the National Academy of Sciences, the Federal Trade Commission, and the Council on Foreign Relations, conducted independent, nonpartisan studies on the U.S. patent system. After filing their reports, those organizations laid down the torch of patent reform.

The Coalition for Patent Fairness picked it up. It has worked with both chambers of Congress to develop a common piece of legislation that contained some of the recommendations from the national studies, as well as many provisions of their own design on damages, post-grant review, and venue.

The CPF members have advanced their proposals as broad "patent reform," with suggestions that their core provisions are supported in the reports issued by the National Academy of Science, the Federal Trade Commission, and the Council on Foreign Relations. But, as you will learn, those studies do not support the CPF's core proposals.

Equally significant, as this report will document in detail, the CPF has promoted its legislation with arguments and articles that are at best misleading.

The conclusions in this paper and the analysis, of course, are my own and do not necessarily reflect the views of the USBIC, its officers, and directors.

Pat Choate October 30, 2007

The "Patent Fairness" Issue

In the eight years I spent researching and writing *Hot Property,* my 2005 book about the role of intellectual property in America's development, I came to some fundamental insights about the U.S. system of intellectual property (IP) – that is, patents, copyrights, trademarks, and trade secrets.

One is that intellectual property law lies at the very heart of U.S. innovation policy. It underpins our economy. It assures our national security. It sustains our quality of life. To weaken U.S. IP protections, therefore, is to weaken U.S. innovation. Our global economic and technological leadership is in great measure based upon a 200-year tradition of strong IP protection.

This long dependence of American prosperity on enforceable IP rights has clearly grown as globalization has intertwined our own economy with those of other nations, for two reasons. First, U.S. IP laws—widely recognized as among the strongest in the world—set an example that powerfully influences international IP treaties and trade agreements, and improves the protections for creative and inventive people all over the globe.

A second reason for our increasing dependence on strong IP laws is the economic shift underway as intangible products, rather than physical goods, become the engine of American economic growth. With such a large and rising fraction of our output in the form of ideas, policymakers must take care to sustain the patent and copyright systems that ensure that those benefits keep flowing from manufacturers around the world to inventors and creators here.

Those benefits actually extend well beyond the borders of the United States. Inventors and companies in dozens of other nations rely on the patent protections provided in the U.S. As Judge Randall Rader of the Federal Circuit Court of Appeals noted recently at the American Intellectual Property Law Association's 2007 annual meeting, "there are international implications in our domestic debates [over IP law] that stretch beyond our understanding."

The patent systems of other nations favor large entities over small inventors, and they are often used to advance national schemes of industrial policy. This situation makes it increasingly difficult for U.S. companies and entrepreneurs to get adequate patent protection abroad. Little surprise, then, that inventors and companies from many nations seek and depend on the protection of a U.S. patent, which is the strongest in the world. Today, half of all U.S. patent applications come from abroad, and up to 30 percent of those are from foreign independent inventors, universities, and small companies.

Another insight from my years of research is that innovation is a very fragile process. The patent laws are quite complex, and the smallest alteration in the wording of the law—even a change in punctuation—can have enormous consequences.

In 2005, for example, patent reform legislation proposed highlighting the word "may" in the statute so that courts would use more discretion when granting injunctions. Even this apparently simple change was deemed to be too dangerous, however. Just a year later, the U.S. Supreme Court decision in *eBay v. MercExchange* resolved the injunction issue, which is no longer a part of the patent reform bill before Congress. In its decision, the Court simply reminds lower court judges to use all four factors in the existing equity test to determine whether injunctive relief is appropriate.

Mindful of the tremendous legal ramifications of a law that injects uncertainty into the patent system, Chief Judge Paul R. Michel of the U.S. Court of Appeals for the Federal Circuit wrote to caution the House Judiciary Committee about the proposed Patent Reform Act (H.R. 1908 & S. 1145). In his June 7, 2007, letter he warns that *"[T] he meaning of various phrases in the bills would be litigated for many years, creating an intervening period of great uncertainty that would discourage settlements of disputes without litigation or at least prior to lengthy and expensive trials."*

Those who have studied the history of IP law appreciate the careful and deliberative process by which it has been crafted. For more than a century, Congress has relied on all the principal parties affected by changes in patent law to reach a consensus before that law is changed.

Alarmingly, this is not happening today. Both H.R. 1908, which passed the House on September 7, and S. 1145, which passed out of the Senate Judiciary Committee on July 19, were designed to benefit just one business model, namely large-scale technology integration. The process that drafted these bills excluded major sectors of the American economy, including manufacturers large and small, technology companies of every stripe, universities, and—perhaps most importantly—smaller entrepreneurs and independent inventors. This is most disturbing, given the myriad cases in which smaller inventors have altered technological paradigms and catalyzed job creation on a massive scale. Indeed, virtually all of the large technology firms pushing the patent reform bills were born with a few key inventions made by small business, individual, or academic inventors.

Large technology integrators form an important part of the economy, but not the only important part. These big players, moreover, already possess a formidable arsenal of legal, political, financial, and marketing tools for protecting their interests and inventions. Indeed, too often they abuse those tools to unfairly restrain competition, as their many antitrust cases demonstrate.

A relatively small number of giants have been advocating major alteration of the patent laws, giants who have accrued tremendous wealth under the current system that actually is a testament to its success. Congress should be skeptical of complaints by the biggest financial winners in the patent system that the system is treating them unfairly. All indications are that the U.S. system has worked brilliantly for more than 200 years. The burden of proof lies on the advocates of change to make a clear and honest case in a careful and deliberative manner. Too much is at stake for politics as usual.

A Question of the "Fairness" of the Coalition for Patent Fairness

The principal advocate for the Patent Reform Act of 2007 is the Coalition for Patent Fairness (CPF). The founding Members of this Coalition are Apple, Cisco, Dell, HP, Intel, Micron and Oracle. Subsequently, several other corporations have joined the CPF.

The core CPF arguments for changing U.S. patent laws are:

- "The major part of U.S. patent laws were shaped in the 1950s, a time when highly integrated global markets were not the norm and the modern technology revolution had not yet begun. ... In order to keep the U.S. competitive our patent system needs to catch up with the 21st Century economy that drives the world economy today. This requires the action of Congress"²
- "The U.S. economy is increasingly bogged down in patent disputes ..."
- "Venue standards should be designed to preclude 'gaming the system' through 'forum-shopping.' ... But allowing 'venue shopping' preserves a loophole that allows plaintiffs to choose courts that are most likely to issue injunctions and deliver disproportionate damages."⁴
- "The current system is allowing baseless patent claims to be made for the purpose of exploiting loopholes and imbalances in the patent system. ... <u>Business must redirect valuable financial resources</u>"⁵
- "The U.S. economy is increasingly bogged down in patent disputes that drain billions of dollars that would otherwise be invested in ... <u>developing new</u> <u>innovations</u>"⁶
- "The U.S. economy is increasingly bogged down in patent disputes that drain billions of dollars that would otherwise be invested in <u>creating jobs</u>"⁷

http://www.patentfairness.org/case_for_reform/need_for_reform.cfm.

² "Who We Are," Coalition for Patent Fairness, <u>http://www.patentfairness.org/about_the_coalition/who_we_are.cfm</u>. ³ Ibid.

 ⁴ "Our Goals," Coalition for Patent Fairness, <u>http://www.patentfairness.org/about_the_coalition/our_principles.cfm</u>.
⁵ "Need for Patent Reform," Coalition for Patent Fairness,

⁶ "Who We Are," Coalition for Patent Fairness, <u>http://www.patentfairness.org/about_the_coalition/who_we_are.cfm</u>.

⁷ "Who We Are," Coalition for Patent Fairness, <u>http://www.patentfairness.org/about_the_coalition/who_we_are.cfm</u>.

• [T]he debate over the need for reform 'has long been settled.' The Supreme Court, FTC, National Academy of Sciences, consumer groups and others agree that the need is 'real and urgent."⁸

Supporters of H.R. 1908 echoed these arguments when the House debated and passed this proposed legislation on September 7, 2007. Simultaneously, the House Managers for the bill noted for the record that many issues raised during that debate had not been resolved and must be corrected in the Senate version, and during the Conference, where differences between the two versions would be reconciled.

Thus, the validity of the CPF arguments is critical for they are the foundation for much of this proposed change of U.S. patent law. If the case by the CPF is false, the legislation requires rethinking, even rejection.

To examine those arguments, I have analyzed data from Federal Judicial Caseload Statistics, legislative information and publicly available data from the seven founding Members of the Coalition for Patent Fairness.

If the existing U.S. patent system is not "fair," then my assumption is that such "unfairness" will be reflected in the individual and collective experiences of the corporations that founded the CPF and are financing much of the current campaign to change U.S. patent laws. The period for most of this analysis is 1996-2006 – an 11-year period that spans the technology bubble of the late 1990s, the recovery and the present.

Each of the seven basic CPF arguments are examined separately and the referenced data are set forth in the appendices.

CPF Argument One: The United States has not kept the U.S. patent system up-to-date with a changing world.

In fact, the U.S. Congress, Executive Branch and Supreme Court have regularly updated patent policy to bring it into line with an increasingly global economy. Since 1952, the U.S. Congress has amended the Patent Act at least 42 times, several of which involved major changes such as establishing the U.S. Court of Appeals for the Federal Circuit.

In addition, the U.S. has entered seven significant international patent-related agreements since 1952, including the convention establishing the World Intellectual Property Organization in 1967 and TRIPS (Trade-Related Aspects of Intellectual Property Rights) at the World Trade Organization in 1994.

⁸ Andrew Noyes, "Intellectual Property Economist Challenges Claims About Patent Troubles," PM Edition of Tech Daily, October 17, 2007

Since 1952, the U.S. Supreme Court has issued 35 major patent decisions, many of which came between 2005 and 2007.

Since 1952, the U.S. Patent and Trademark Office (USPTO) has made 46 significant changes to patent regulations. (See Appendix A.)

One example of how the courts have significantly reformed patent quality is the issue of obviousness - one of the fundamental doctrines in patent law. The 2004 NAS report recommended several far-reaching changes concerning how to determine whether an invention is obvious. However, the USPTO ignored these recommendations when formulating its new rules, and the proposed patent reform legislation does not incorporate those expert findings either. Since the USPTO and the Congress did not address this serious problem, the Supreme Court stepped in. This year the Supreme Court used its decision in KSR International Co. v. Teleflex Inc to reinvigorate the standards of obviousness, which had been diluted by years of case law from the U.S. Court of Appeals for the Federal Circuit. Lower courts are just now beginning to reveal the effects of the KSR decision, which are likely to be far-reaching.

Other quality issues that the courts have successfully addressed include questions of who may interpret claim terms, how far the "doctrine of equivalents"⁹ may reach in determining whether a patent is infringed, when a court should issue an injunction, and what standards determine when enhanced or punitive damages may be awarded.

The extraordinary set of recent Supreme Court decisions is having the intended effect of correcting abuses and weaknesses in the patent system. It is too early to judge how profound these effects will ultimately be. Indeed, the USPTO has only very recently announced how it will apply the teachings of KSR in its examinations of patent applications. Until the dust that the Supreme Court has raised settles, more Congressional "fixes" would seem premature.

Since 1952 patent law has been, and continues to be, a dynamic field.

CPF Argument Two – The U.S. economy is increasingly bogged down in patent disputes.

Federal Judicial Caseload Statistics reveal that there is no U.S. patent litigation crisis.¹⁰

Patent lawsuits as a percentage of patents granted have remained constant at 1.5 percent over the last 15 years (*i.e.*, 1.57 percent in 1996 versus 1.55 percent in 2006). With an expanding economy and more innovation, the absolute number of patent applications filed and patents issued has increased, but there has been no abnormal surge of patent litigation. (See Appendix B.)

⁹ A <u>patent</u> rule under which a new device or process violates an existing patent if the new invention does the same work in a substantially similar way to achieve the same results.

⁽http://www.uscourts.gov/library/statisticsalreports.html.)

Also, the number of patent lawsuits commenced has dropped over the last two years from 3,075 in 2004 to 2,830 in 2006. Only slightly more than three percent of the patent lawsuits commenced in FY 2006 actually went to trial. In FY 2006, only 102 patent cases resulted in a trial, which is certainly not a litigation crisis. About 97 percent of all patent cases commenced are withdrawn or settled. (*See* Appendix C.)

CPF Argument Three – Venue standards allow forum shopping and "gaming the system."

The seven CPF corporations routinely condemn patent owners' filing patent lawsuits in what are known as "rocket dockets" (courts that speed the judicial process along), even as they make extensive use of those same venues themselves whenever they are plaintiffs. (*See* Appendix D.)

For this analysis, the rocket dockets are the Eastern District of Texas, Eastern District of Virginia, Western District of Wisconsin, the New York Southern District and the District of Delaware.

In the period 1996-2006, the seven CPF founders were defendants in 285 lawsuits, of which 98 were in a rocket docket (34 percent). During that same period, they were plaintiffs in 116 cases, of which 43 were in a rocket docket (37 percent). When suing, in other words, they behaved just the same as those who sued them.

More telling is the litigation data of recent years. In the five-year period 2002-2006, the CPF founders were defendants in 192 lawsuits, of which 78 were in rocket dockets (40 percent). In the same period, they were plaintiffs in 71 cases, of which 34 were in rocket dockets (48 percent).¹¹

As this information reveals, rocket dockets are not a problem for the CPF founders when they are suing others. On a proportionate basis, these seven companies use the rocket dockets more than those suing them. As these statistics suggest, when a corporation believes its patents are being violated and cannot secure a settlement, it seeks a fast resolution in a docket skilled in patent law.

CPF Argument Four – The current patent litigation system is a great burden on innovative companies, draining away billions of dollars.

In the 11-year period 1996-2006, the seven CPF founding corporations disclosed <u>\$1.9</u> <u>billion</u> in patent settlement payments, an average of <u>\$173 million</u> per year. During that same time, these seven corporations had collective revenues of more than <u>\$1.7 trillion</u>. (*See* Appendix E.)

¹¹ <u>http://pacer.psc.uscourts.gov</u> The Public Access Court Electronic Records database (PACER) provides the court records used to compile the statistics regarding these lawsuits.

As a percent of their revenues for those 11 years, disclosed patent settlements were one-ninth of one percent (0.11 percent). In the entire 11-year period, the highest portion of total revenues devoted to patent settlement was in 2002, when it was 3/10th of one percent (0.3 percent). In 2006, the ratio of patent settlements to revenues was 1/25th of one percent (0.04 percent). This hardly seems a great burden on these seven companies.

It is true that patent lawsuits sometimes end in settlements in which the resulting awards are not made public. But even if the amounts paid in secret are double or triple what the companies report to stockholders and the SEC, the resulting 1/3 or 1/2 of one percent of their revenues is still trivial to the corporations' operations. If these damages are significantly greater than what they are reporting and thus necessitate a historic change in U.S. patent law, these corporations should reveal the total amount of secret payments they have made. Whatever the amount of secret patent settlements they make, the amount must be immaterial to any public company's performance – otherwise the company officers are in violation of Sarbanes-Oxley disclosure rules. In this, Congress should follow President Reagan's maxim of "Trust but verify."

If these seven companies face a litigation crisis, it is found in antitrust suits in which they have been involved. Between 1996 and 2006, these seven companies have been involved in 247 antitrust cases, of which 229 were in the period 2002-2006. (*See* Appendix F.)

CPF Argument Five – Baseless patent disputes divert R&D dollars that would otherwise be invested in developing new innovations.

In 1996, the seven founders of the CPF invested \$6.2 billion in R&D. In 2006, they invested \$17.2 billion in R&D – an increase of 277 percent. (See Appendix E.)

Collectively, the CPF founders invested more than \$131 billion on R&D for the period 1996 to 2006. Disclosed patent settlements equaled 1.5 percent of the total R&D investment, which suggests that patent litigation has had no significant impact on their research and development activities.

CPF Argument Six – Baseless patent disputes divert monies that would otherwise be invested in creating jobs.

The implied argument is that a change of U.S. patent law would free up monies to create more and better jobs for American workers. Yet, these seven companies have been at the forefront of the off shoring of U.S.-based R&D and jobs. As the data in Appendix G illustrates, by the end of 2006, 55% of their total employment was located outside the United States.

Some CPF corporations have even more of their jobs overseas. Hewlett Packard, at the end of 2006, had 54,000 employees based in the United States, but more than 101,000 in overseas facilities. Oracle had 26,000 U.S.-based employees and more than 48,000 located in other nations. So too, Dell had almost 40,000 foreign-based workers, but barely 26,000 in the U.S. Intel's work force is split – half in the United States and half abroad. Micron Technology, which is the largest employer in Idaho with 9,000 jobs, recently announced that it is shifting a major portion of its manufacturing jobs to China. Because Apple relies on foreign contract manufacturers, it is impossible to determine how many workers are involved in the making of its products. (See Appendix G.)

The patent license fees these big companies pay typically go to support U.S. inventors, who are presumably just the sort of smart and creative people policymakers want to encourage. Denying them a decent income so that large transnational companies, which these are, can spend more on cheaper foreign factories and workers makes little economic sense.

The point is these seven companies have extensive employment overseas and no change in current U.S. patent law is likely to change that economic dynamic.

CPF Argument Seven - The need for patent reform "has long been settled" and the Supreme Court, FTC, National Academy of Sciences, consumer groups and others agree that the need is "real and urgent."

The implication, of course, is that these institutions and groups support the CPF positions on patent reform. While there is wide agreement that the need for patent reform is "real and urgent," there is an equally wide disagreement as to what such "reform" should be.

To review, the core provisions advocated by the CPF are:

- (1) Changing the method by which damages are calculated;
- (2) Changing existing patent law to allow a second-window review of a patent's validity during the entirety of its life;
- (3) Changing existing rules on venue to tightly limit where a patent owner is allowed to file a lawsuit against an infringer.

Contrary to CPF allusions, recent reports by the National Academy of Sciences, the Federal Trade Commission, and Council on Foreign Relations, <u>do not recommend</u> that Congress enact these three changes. (*See* Appendix H.)

In fact, none of the reports issued by these three groups take any position on the issues of damage calculations or changes in venue rules. And none of these studies recommend that the U.S. adopt a European-style, second-window post-grant process, as provided in S. 1145.

The National Academy of Sciences study recommended the creation of an "Open Review Procedure" that would exist for 12 months after a patent grant. The Federal Trade Commission report recommended a "short" post-grant review process, but did not define "short." The Council on Foreign Relations recommended allowing anyone to petition the USPTO to make a challenge for a period of 9-12 months after a patent grant.

The American Bar Association, the premier legal group in the United States, opposes all three of these proposed changes in patent law. On September 20, 2007, Pamela Banner Krupka wrote the Chairman and Ranking Members on the Senate Committee on the Judiciary that the ABA's Section on Intellectual Property Law, which she chairs, opposed "the enactment of either S. 1145 or H.R. 1908." She specifically noted in her letter the Section's opposition to:

- (1) "Unfair and ambiguous provisions for the calculation of reasonable royalty damages.
- (2) Post-grant review procedures that will create uncertainty and add unnecessarily to the expense of maintaining a patent position.
- (3) Unnecessary and ill-advised changes to the federal venue rules for patent cases."

As for the Supreme Court, it has beaten Congress to the punch on patent reform. Robert A. Armitage, who was an official reviewer of the NAS's 2004 report, writes that the Supreme Court and the Federal Circuit have "squarely addressed and redressed" the unfair treatment of infringers.¹² Specifically, Armitage points out that:

- (1) The *Festo* decision (2002) requires stringent rules for the use of the "doctrine of equivalents" and by that greatly reduced patent owners' "elastic reading of their claims" to include alleged "equivalents."
- (2) The *eBay* decision (2006) deals with the contention that injunctive relief was leading to undesirable settlements.
- (3) The *KSR* decision (2007) strengthens the standards for "obviousness" and thus patent quality.

In sum, the NAS, FTC, and CFR positions on patent reform do not support the core provisions advocated by the Coalition for Patent Fairness, which are found in H.R. 1908 and S. 1145.

The authors and participants in those studies owe a duty to the public to clarify for Congress just what recommendations their final reports made for patent reform.

¹² (Robert A. Armitage, "Now That the Courts Have Beaten Congress to the Punch, Why is Congress Still Punching the Patent System?," 106 Mich. L. Rev. First Impressions 43 (2007),

http://www.michiganlawreview.org/firstimpressions/vol106/armitage.pdf.

Conclusion

The basic arguments made by the Coalition for Patent Fairness on behalf of H.R. 1908 and S. 1145 are factually false and misleading. Specifically,

- Congress has kept U.S. patent laws up-to-date with numerous changes.
- There is no U.S. litigation crisis.
- The CPF founders make extensive use of rocket dockets when suing as plaintiffs.
- Only tiny portions of CPF revenues are diverted to patent settlements.
- CPF founder companies have almost tripled their R&D investments since 1996 to more than \$17 billion in 2006.
- The three recent national studies on patent reform do not support the CPF's core proposals.

If there is a reason to enact this legislation, it is not found in these CPF arguments.

Appendix A

Changes in U.S. Patent Law Since 1952

Amendments to the Patent Act (35 U.S.C. § 1 et seq.) since 1952

- P.L. 93-596 January 2, 1975 Amended the name of the U.S. Patent Office to the U.S. Patent and Trademark Office.
- P.L. 94-131 November 14, 1975 Implemented the Patent Cooperation Treaty.
- P.L. 96-517 December 12, 1980 Created Ex Parte Reexamination, defined patent rights in inventions made with federal assistance. (Bayh-Dole Act).
- P.L. 97-164 April 2, 1982 Established the U.S. Court of Appeals for the Federal Circuit.
- P.L. 97-247 August 27, 1982 Changed patent fees and provided for correction of inventorship without deceptive intent.
- P.L. 97-366 October 15, 1982 Changed compensation for the Commissioner.
- P.L. 97-414 January 4, 1983 Permitted Patent Term Extensions (35 U.S.C. § 154).
- P.L. 98-127 October 13, 1983 Permitted Patent Term Restoration (35 U.S.C. § 155A).
- P.L. 98-417 September 24, 1984 Permitted Patent Term Extensions (35 U.S.C. § 156) part of the Hatch-Waxman Act.
- P.L. 98-622 November 8, 1984 Amended the implementation of the Patent Cooperation Treaty and amended patent maintenance fees.
- P.L. 100-418 August 23, 1988 Process Patents Amendment Act of 1988 and Patent Law Foreign Filings Act of 1988.
- P.L. 103-465 December 8, 1994 Implemented the Uruguay Round Agreements Act (TRIPS) included change in the terms of patent from 17 years from the grant to 20 years from the filing and permitting filing of provisional applications.
- P.L. 106-113 November 29, 1999 American Inventors Protection Act included inter partes reexamination.
- P.L. 107-273 November 2, 2002 Patent and Trademark Office Authorization Act of 2002 amended AIPA.
- P.L. 108-178 December 15, 2003 technical amendments.
- P.L. 108-453 December 10, 2004 the CREATE Act.

Significant International Patent Related Agreements since 1952

- Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement (1994)
- Uruguay Round Agreements Act (1994)
- International Convention for the Protection of New Varieties of Plants (UPOV) (1991)
- Patent Cooperation Treaty (1978)
- Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purpose of Patent Procedure (1977)
- **C**onvention Establishing the World Intellectual Property Organization (1967)

Significant Supreme Court Cases since 1952

- Microsoft Corp. v. AT&T Corp., U.S. 127 S. Ct. 1746 (2007) [Section 271(f) infringement]
- KSR International Co. v. Teleflex Inc., U.S. __, 127 S. Ct. 1727 (2007) [Obviousness standard]
- Medimmune, Inc. v. Genentech, Inc., U.S. , 127 S. Ct. 764 (2007) [patent licensee challenging licensed patent]
- eBay v. MercExchange, U.S. ___, 126 S. Ct. 1837 (2006) [permanent injunction standards]
- Illinois Tool Works Inc. v. Independent Ink Inc., U.S. __, 126 S. Ct. 1281 (2006) [antitrust patent market power]
- Unitherm Food Systems Inc. v. Swift-Eckrich Inc., U.S. __, 126 S. Ct. 980 (2006) [civil procedure]
- Merck KGAA v. Integra Lifesciences I, Ltd., 545 U.S. 193 (2005) [Section 271(e)(1) infringement]
- Festo Corp. v. Shoketsu Kinzoku Kogyokabushiki Co., 535 U.S. 722 (2002) [Doctrine of equivalents]
- Holmes Group, Inc. v. Vornado Air Circulation Systems, Inc., 535 U.S. 826 (2002) [Federal Circuit jurisdiction]
- J. E. M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc., 534 U.S. 124 (2001) [patentable subject matter]
- Traffix Devices, Inc. v. Marketing Displays, Inc., 532 U.S. 23 (2001) [patent law trade dress protection]
- Dickinson v. Zurko, 527 U.S. 150 (1999) [judicial review standards for USPTO]
- Pfaff v. Wells Electronics, Inc., 525 U.S. 55 (1998) [on sale invalidity]
- Warner Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S. 17 (1997) [Doctrine of Equivalents]

- Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996) [claim construction]
- Asgrow Seed Co. v. Winterboer, 512 U.S. 179 (1995) [Plant Variety Protection Act of 1970 -Infringement]
- Cardinal Chemical Co. v. Morton Inter'l, 508 U.S. 83 (1993) [civil procedure declaratory judgment for invalidity not mooted by patent non-infringement]
- Eli Lilly & Co. v. Medtronic, Inc., 496 U.S. 661 (1990) [Section 271(e)(1) infringement]
- Bonito Boats Inc. v. Thunder Craft Boats Inc., 489 U.S. 141 (1989) [patent law preemption]
- Christianson v. Colt Industries Operating Corp., 486 U.S. 800 (1988) [Federal Circuit jurisdiction]
- General Motors Corp. v. Devex Corp., 461 U.S. 648 (1983) [prejudgment interest]
- *Diamond v. Diehr*, 450 U.S. 175 (1981) [Patentable matter use of a mathematical formula and a computer]
- Dawson Chemical Co. v. Rohm and Haas Co., 448 U.S. 176 (1980) [patent misuse]
- Diamond v. Chakrabarty, 447 U.S. 303 (1980) [Patent Living Micro-Organism]
- Aronson v. Quick Point Pencil Co., 440 U.S. 257 (1979) [Patent Licensing]
- Parker v. Flook, 437 U.S. 584 (1978) [Patentable matter Mathematical Formula]
- Gottschalk v. Benson, 409 U.S. 63 (1972) [Patentable matter Mathematical Formula]
- Brenner v. Manson, 383 U.S. 519 (1966) [Patent Process Utility of Invention]
- Graham v. John Deere Co., 383 U.S. 1 (1966) [Patent Nonobviousness of Invention]
- Hazeltine Research, Inc. v. Brenner, 382 U.S. 252 (1965) [Patent Prior Art Pending Application]
- Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476 (1964) [Patent Infringement Replacement Parts]
- Compco Corp. v. Day-Brite Lighting, Inc., 376 U.S. 234 (1964) [Patent Unfair Competition Preemption]
- Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225 (1964) [Patent Unfair Competition Preemption]
- Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336 (1961) [Patent Infringement Replacement Parts]

Significant Amendments to Patent Regulations

- 72 FR 46716 843, Aug. 21, 2007 [Rules of Practice]
- 70 FR 54259 267, Sept. 14, 2005 [CREATE Act Implementation]

- 70 FR 1818 1824, Jan. 11, 2005 [CREATE Act Implementation]
- 69 FR 56481 547, Sept. 21, 2004 [21st Cent. Plan Implementation]
- 69 FR 49959 50020, Aug. 12, 2004 [Board Patent Appeals & Interferences Practice]
- 69 FR 35427 459, June 24, 2004 [Rules of Practice]
- 68 FR 70996 71009, Dec. 22, 2003 [Inter Partes Reexamination]
- 68 FR 38611 630, June 30, 2003 [Electronic Filing]
- 65 FR 76756 787, Dec. 7, 2000 [Inter Partes Reexamination]
- 65 FR 57024 061, Sept. 20, 2000 [Application Publications Implementation]
- 65 FR 56366, Sept. 18, 2000 [AIPA Implementation]
- 65 FR 54604 683, Sept. 8, 2000 [Rules of Practice]
- 65 FR 50092 105, Aug. 16, 2000 [Rules of Practice]
- 65 FR 14865 873, Mar. 20, 2000 [Rules of Practice]
- 62 FR 53132 206, Oct. 10, 1997 [Rules of Practice]
- 61 FR 42790 807, Aug. 19, 1996 [Rules of Practice]
- 60 FR 20195 231, Apr. 25, 1995 [URAA Implementation]
- 60 FR 14488 536, Mar. 17, 1995 [Interference Practice]
- 58 FR 9335 348, Jan. 14, 1993 [PCT Practice]
- 57 FR 29634 648, July 6, 1992 [Rules of Practice]
- 57 FR 2021 2036, Jan. 17, 1992 [Rules of Practice]
- 56 FR 1924 1929, Jan. 18, 1991 [Foreign Filing Amendments Implementation]
- 55 FR 18230 254, May 1, 1990 [Rules of Practice]
- 54 FR 47515 519, Nov. 15, 1989 [Rules of Practice]
- 54 FR 34864 34883, Aug. 22, 1989 [Biological Materials]
- 54 FR 30375 382, July 20, 1989 [PL 100-670 Implementation]
- 54 FR 29548 29554, July 13, 1989 [Judicial Review of Board Decisions]
- 54 FR 6893 6904, Feb. 15, 1989 [Rules of Practice]
- 53 FR 47803 810, Nov. 28, 1988 [Rules of Practice]

- 53 FR 23728 23737, June 23, 1988 [Rules of Practice]
- 52 FR 20038 20052, May 28, 1987 [PCT practice]
- 52 FR 9386 9399, Mar. 24, 1987 [Hatch-Waxman Act implementation]
- 50 FR 9368 9384, Mar. 7, 1985 [PL 98-620 & 98-622]
- 50 FR 5158 5187, Feb. 6, 1985 [Attorney Discipline and Admissions]
- 49 FR 48416 471, Dec. 12, 1984 [Interference practice]
- 49 FR 13456 463, Apr. 4, 1984 [Foreign filing implementation]
- 49 FR 548 556, Jan. 4, 1984 [PL 97-247 implementation]
- 48 FR 2696 2714, Jan. 20, 1983 [Rules of Practice]
- 47 FR 47380 382, Oct. 26, 1982 [Federal Circuit creation]
- 47 FR 41272 282, Sept. 17, 1982 [Rules of Practice]
- 47 FR 21746 753, May 19, 1982 [Reissue & Reexamination practice]
- 46 FR 29176 187, May 29, 1981 [Ex Parte Reexamination]
- 43 FR 20458 472, May 11, 1978 [PCT Implementation]
- 42 FR 5588 5595, Jan. 28, 1977 [Rules of Practice]
- 41 FR 756 762, Jan. 5, 1976 [Rules of Practice]
- 24 FR 10332 10357, Dec. 22, 1959 [Rules of Practice]

Appendix **B**

Patents Granted and Lawsuits Commenced (FY 1992-2006)

Fiscal Year	Patents Granted	Patents Suits Commenced	Lawsuits as a Percent of Patents Granted
2006	183,000	2,830	1.55
2005	165,000	2,720	1.64
2004	187,000	3,075	1.64
2003	190,000	2,814	1.48
2002	177,000	2,700	1.52
2001	188,000	2,520	1.32
2000	182,000	2,484	1.36
1999	159,000	2,318	1.45
1998	155,000	2,218	1.43
1997	123,000	2,112	1.71
1996	117,000	1,840	1.57
1995	114,000	1,723	1.51
1994	113,000	1,617	1.43
1993	107,000	1,553	1.45

Sources: Data from the patents Granted is from USPTO Annual Reports. Data for lawsuits commenced is from the Federal Judicial Statistics. The lawsuit data is as of March 31 of each year. The patents granted data is as of the Federal Fiscal Year. While the data is skewed by the different times used for the reporting years, a long-term view is created for this 14-year period. The author calculated the ratios.

Appendix C

U.S. District Courts Patent Cases Commenced and Terminated by Nature of Court Action Taken -- 2001-2006

Year (12 months	Cases Filed	No Court Action	Cases 1	Ferminated a	nd Court Action	is Taken
endng March 31)			Total	Before Pretrial	During or After Pretrial	During/After Trial
2001	2520	634	1689	1330	283	76
2002	2700	665	1801	1413	302	86
2003	2814	673	1809	1372	349	88
2004	3075	769	1907	1432	379	96
2005	2720	863	1941	1492	342	107
2006	2700	860	1840	1409	329	102

Source: Federal Judicial Caseload Statistics, 2001-2006 (As of March 31 of each year).

Appendix D

CPF Founders and Patent Litigation 1996 - 2006

CPF Founders as Defendants in Patent Litigation

		All Courts As Defendants										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Apple	1	0	1	1	1	6	1	5	9	8	5	38
Cisco	2	0	2	3	3	3	5	3	5	4	1	31
Dell	0	1	1	0	2	3	5	8	11	11	10	52
HP	2	5	6	8	7	6	9	1	11	8	8	71
Intel	3	3	5	1	7	1	6	2	11	10	6	55
Micron	0	0	3	1	1	2	4	0	2	2	4	19
Oracle	0	0	0	0	2	0	1	2	5	3	6	19
Total	8	9	18	14	23	21	31	21	54	46	40	285
					Rocke	t Docke	ts as De	efendan	its			
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Apple	0	0	1	0	0	4	0	2	3	1	2	13
Cisco	0	0	1	0	0	0	1	1	2	3	0	8
Dell	0	0	1	0	1	1	2	3	4	3	8	23
Hewlett												
Packard	2	1	0	0	1	1	3	1	6	3	5	23
Intel	0	0	1	0	2	0	1	1	4	3	3	15
Micron	0	0	2	1	0	0	0	0	1	2	1	7
Oracle	0	0	0	0	0	0	0	1	1	2	5	9
Total	2	1	6	1	4	6	7	9	21	17	24	98
				Rocke	t Docke	ets as a	Percent	tage, De	efendan	ts		

				NOCKC	DOCKC	13 43 4		age, De		13		
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Rocket Dockets as Defendanst	25%	11%	33%	7%	17%	29%	23%	43%	39%	37%	60%	34%

Appendix D (continued)

CPF Founders and Patent Litigation 1996 - 2006

CPF Founders as Plaintiffs in Patent Litigation

					AI	I Courts	s as Plai	intiffs				
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Apple	1	2	0	0	1	0	0	1	1	2	5	13
Cisco	0	0	1	0	0	2	0	2	2	3	1	11
Dell	0	0	0	0	0	0	0	0	1	2	1	4
HP	0	2	5	6	2	5	2	3	8	7	2	42
Intel	0	4	0	3	1	3	5	1	1	7	3	28
Micron	1	1	2	1	2	0	1	0	2	1	1	12
Oracle	0	0	0	0	0	0	0	1	2	0	3	6
Total	2	9	8	10	6	10	8	8	17	22	16	116
					Rock	et Dock	ets as I	Plaintiff	s			
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Apple	0	1	0	0	0	0	0	1	1	0	4	7
Cisco	0	0	0	0	0	1	0	2	0	2	1	6
Dell	0	0	0	0	0	0	0	0	1	0	1	2
Hewlett												
Packard	0	0	0	1	0	0	0	0	4	2	1	8
Intel	0	1	0	0	1	2	0	1	0	5	3	13

33%

30%

Rocket Dockets as a Percentage, Plaintiffs

0%

50%

22%

0%

20%

0%

Micron

Oracle

Total

Rocket Dockets as Plaintiffs

53%

45%

69%

Total

37%

	11 Year Period (1996-2006)	Y1996	Y1997	Y1998	Y1999	Y 2000	Y2001	Y2002	Y2003	Y2004	Y2005	Y2006
Net Sales or Revenues (Millions of USD)	\$ 1,773,454.6 \$	88,832.1 \$	103,013.0 \$	116,132.5 \$	127,903.3 \$	158,773.4 \$	145,384.6 \$	155,675.0 \$	182,297.3 \$	208,203.2 \$	236,841.2 \$	250,399.0
Cost of Goods Sold	\$1,027,588.1 \$	50,221.5 \$	55,041.4 \$	64,686.3 \$	69,936.4 \$	85,486.6 \$	85,577.0 \$	90,065.1 \$	106,648.0 \$	123,700.0 \$	142,963.9 \$	153,262.0
Gross Income	745,866.47	38,610.62	47,971.64	51,446.28	57,966.83	73,286.87	59,807.53	65,609.90	75,649.30	84,503.20	93,877.30	97,137.00
Gross Margin	42.1%	43.5%	46.6%	44.3%	45.3%	46.2%	41.1%	42.1%	41.5%	40.6%	39.6%	38.8%
Operating Income	\$ 238,920.4 \$	14,064.8 \$	18,030.1 \$	16,961.8 \$	21,565.3 \$	28,475.9 \$	9,379.5 \$	12,518.7 \$	21,670.5 \$	29,969.0 \$	34,039.9 \$	32,245.0
Net Income	\$ 179,135.9 \$	9,568.1 \$	12,165.3 \$	12,781.1 \$	16,438.9 \$	27,797.4 \$	4,165.9 \$	7,591.0 \$	15,498.5 \$	22,146.2 \$	24,798.5 \$	26,185.0
Patent Suit Info Patent Suit Settlement Amount (Millions of USD)	\$ 1,939.3 \$	ب	ب	400.0 \$	\$ (0.7)	ب ۱	14.0 \$	475.0 \$	265.0 \$	235.0 \$	451.0 \$	100.0
% of Revenue	0.11%	0.00%	0.00%	0.34%	0.00%	0.00%	0.01%	0.31%	0.15%	0.11%	0.19%	0.04%
% of Operating Income (Profits)	0.81%	0.00%	0.00%	2.36%	0.00%	0.00%	0.15%	3.79%	1.22%	0.78%	1.32%	0.31%
% of Net Income	1.08%	0.00%	0.00%	3.13%	0.00%	0.00%	0.34%	6.26%	1.71%	1.06%	1.82%	0.38%
Patent Suits Where Defendant	285	Ø	o	18	14	23	21	31	21	54	46	40
Patent Suits Where Plaintiff	116	2	6	8	10	9	10	8	8	17	22	16
Patent Suits in Rocket Dockets as Defendant	98	2	-	9	-	4	9	7	თ	21	17	24
Patent Suits in Rocket Dockets as Plaintiff	43		2		2	2	ю		4	6	10	11
Research & Development R&D Expenditure (Millions USD)	\$ 131,094.5 \$	6,198.3 \$	7,517.5 \$	8,387.4 \$	8,914.5 \$	12,784.4 \$	13,676.1 \$	13,157.3 \$	13,766.4 \$	14,460.9 \$	14,997.7 \$	17,234.0
% of Revenue	7.4%	7.0%	7.3%	7.2%	7.0%	8.1%	9.4%	8.5%	7.6%	6.9%	6.3%	6.9%
% of Operating Income	54.9%	44.1%	41.7%	49.4%	41.3%	44.9%	145.8%	105.1%	63.5%	48.3%	44.1%	53.4%
% of Net Income	73.2%	64.8%	61.8%	65.6%	54.2%	46.0%	328.3%	173.3%	88.8%	65.3%	60.5%	65.8%

Appendix F

CPF Founders and Antitrust Litigation 1996 - 2006

						All Anti	trust					
-	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Apple	0	2	1	1	1	0	0	0	0	0	1	6
Cisco	0	0	0	0	0	2	0	1	0	0	0	3
Dell	0	0	1	1	2	0	0	1	2	3	0	10
HP	0	0	0	1	0	1	1	0	0	2	0	5
Intel	0	0	1	1	0	0	0	0	1	73	30	106
Micron	0	0	0	0	2	0	18	5	5	25	59	114
Oracle	0	0	1	0	0	0	0	1	1	0	0	3
											Total:	247

					State (Governm	ent Plaint	tiffs				
-	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Apple	0	0	0	0	0	0	0	0	0	0	0	0
Cisco	0	0	0	0	0	0	0	0	0	0	0	0
Dell	0	0	1	0	0	0	0	0	0	0	0	1
HP	0	0	0	0	0	0	0	0	0	0	0	0
Intel	0	0	1	0	0	0	0	0	0	0	0	1
Micron	0	0	0	0	0	0	0	0	0	0	3	3
Oracle	0	0	1	0	0	0	0	1	0	0	0	2
											Total:	7

_					Federal	Governn	nent Plair	ntiffs				
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Apple	0	0	0	0	0	0	0	0	0	0	0	0
Cisco	0	0	0	0	0	0	0	0	0	0	0	0
Dell	0	0	0	0	0	0	0	0	0	0	0	0
HP	0	0	0	0	0	1	0	0	0	0	0	1
Intel	0	0	0	0	0	0	0	0	0	0	0	0
Micron	0	0	0	0	0	0	0	0	0	0	0	0
Oracle	0	0	0	0	0	0	0	0	1	0	0	1
											Total:	2

Source: Compiled from data obtained through Public Access Court Electronic Records database, "PACER". <u>http://pacer.pcs.uscourts.gov</u>

Appendix G

Domestic and International Employment for CPF Founders 2006

Employees	Domestic	International	Total
Apple	15,878	1,909	17,787
Cisco	30,326	19,600	49,926
Dell	26,200	39,900	65,200
HP	54,085	101,915	156,000
Intel	49,250	44,850	94,100
Micron	14,100	9,400	23,500
Oracle	25,990	48,684	74,674
Total	215,829	266,258	481,187

Source: Compiled from Corporate 10-K filings, Securities and Exchange Commission, Washington, D.C., 2006.

Notes: Apple international data may be skewed due to the fact that it uses contract manufacturers in Asia for which data are not readily available. Dell data includes 900 ³Dell Financial Services Employees which have been deducted from the Total shown here. Intel's International employment is calculated by subtracting U.S. workers from total. Micron data includes 2,400 employees in its TECH joint venture in Singapore and 800 employees in its IMFT joint venture in the U.S.



Appendix H

A Comparison of Recommended Changes to U.S. Patent Law

Organization	Damages	Post-Grant Review	Venue
Coalition for Patent Fairness	S. 1145 New Method	S. 1145 European-style Second Window	S. 1145 Limits
National Academy of Sciences Study ¹³	No Position	Open Review for 12 months after a patent grant	No Position
Federal Trade Commission Report ¹⁴	No Position	"Short" post-grant process	No Position
Council on Foreign Relations ¹⁵	No Position	Petition USPTO 9-12 months after a patent grant	No Position

 ¹³ "A Patent System for the 21st Century," National Academy of Sciences, 2004. <u>http://www7.nationalacademies.org/step/Patent_Summary_Research.pdf</u>
¹⁴ "To promote innovation," Federal Trade Commission, 2003. <u>http://www.ftc.gov/os/2003/10/innovationrpt.pdf</u>
¹⁵ "Reforming U.S. Patent Policy," Council on Foreign Relations, 2006. <u>http://www.cfr.org/publication/12087/reforming_us_patent_policy.html</u>