

HOW AN IMPROVED U.S. PATENT AND TRADEMARK OFFICE CAN CREATE JOBS

HEARING BEFORE THE SUBCOMMITTEE ON INTELLECTUAL PROPERTY, COMPETITION, AND THE INTERNET OF THE COMMITTEE ON THE JUDICIARY HOUSE OF REPRESENTATIVES ONE HUNDRED TWELFTH CONGRESS FIRST SESSION

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HOW AN IMPROVED U.S. PATENT AND TRADEMARK OFFICE CAN CREATE JOBS

TUESDAY, JANUARY 25, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INTELLECTUAL PROPERTY,
COMPETITION, AND THE INTERNET,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to call, at 1:33 p.m., in room 2141, Rayburn House Office Building, the Honorable Bob Goodlatte (Chairman of the Subcommittee) presiding.

Present: Representatives Goodlatte, Coble, Chabot, Issa, Jordan, Poe, Chaffetz, Reed, Griffin, Marino, Adams, Quayle, Watt, Conyers, Berman, Chu, Deutch, Wasserman Schultz, Nadler, Lofgren, Jackson Lee, and Waters.

Staff Present: (Majority) Blaine Merritt, Subcommittee Chief Counsel; Olivia Lee, Clerk; and Stephanie Moore, Minority Subcommittee Chief Counsel.

Mr. GOODLATTE. Good afternoon, and welcome to the first hearing of the Subcommittee on Intellectual Property, Competition, and the Internet. The Subcommittee will come to order. Before I recognize myself for an opening statement, I want to welcome all the Members of the Committee. We have a number of new Members in Congress who are on the Committee, but since most of them aren't here today, I will defer on that until perhaps later on in the hearing.

I want to also say how pleased I am and look forward to working with our new Ranking Member, Mr. Watt of North Carolina, who was elected in Congress the same year I was, and we have worked together on a number of different things, but we will be spending a lot of time together here in this Congress.

I'll now recognize myself for an opening statement.

In April of 2010, the U.S. Department of Commerce released a white paper entitled: Patent reform: Releasing Innovation, Promoting Economic Growth, and Producing High-Paying jobs. The authors concisely document that a well-functioning patent system facilitates innovation, a key driver of a pro-growth, pro-job-creating agenda. To illustrate this point, I've culled three factoids from the study. First, technological innovation is linked to three-quarters of America's post-World War II growth rate. Much of this is attributable to capital investment and increased efficiency.

Second, innovation produces high-paying jobs. Between 1990 and 2007, the average compensation per employee in innovation-inten-

sive sectors increased nearly 2½ times the national average. And, third, innovative firms rely on patent portfolios to attract venture capital. In fact, 76 percent of startup managers indicate that venture capitalists consider patents when making investment decisions.

But the Commerce study and related sources also note that the current U.S. patent system is “prone to delay and uncertainty as well as inconsistent quality.” On the front end, this means that private investments in innovation are less likely. On the back end, lawsuits that challenge the validity and scope of patents cannot address this quality deficit. Both scenarios stifle economic growth and job creation. Conversely, a well functioning and resourced Patent and Trademark Office can only lead to greater innovation and higher-paying jobs.

Part of our focus today will examine how the agency is funded, or rather, not funded. The PTO derives its operating revenue from inventors and trademark owners who pay user fees to the agency. These funds are deposited in a PTO appropriations account at the Treasury, with the appropriators ultimately deciding how much money the agency gets back. Since 1991, it is estimated that more than \$700 million have been diverted from PTO coffers to other Federal initiatives.

Starting with the Bush administration, we began to see more of a commitment to allowing the PTO to keep more of the fees it generates. If I had my preference, the PTO would be able to keep all of the fees it collects for PTO operations. While I have worked for many years and will continue to work hard to allow PTO to keep its fees, the reality is that we are in challenging financial times and we have a less than optimal system for funding the PTO at present. In this environment, we must continue to ask the question of how PTO can continue to enhance quality and reduce pendency in the unfortunate event that it is again faced with the less than full funding levels.

Again, while we must continue to work to produce greater efficiencies at PTO, you can be assured that we will continue to work with the appropriators to allow the PTO to keep its fees. Any other system amounts to an excise tax on our Nation’s inventors.

But we won’t confine the hearing to money matters alone. In this regard, no one can accuse David Kappos of dragging his feet as the PTO director. I commend him for his energy and the new initiatives that he’s launched at the agency since assuming the helm. It is important to delve into these programs to make sure they are needed, and if so, to determine if they work. Above all, we should support programs that maximize the agency’s ability to reduce patent pendency, pare the application backlog, and ensure that it issues only patents of high legal integrity.

These issues really define the agency and its ability to serve inventors, trademark holders, and the American people. There are more than 700,000 applications awaiting first office actions, and average total pendency surpasses 35 months. We need to work with PTO to get these numbers down.

I will conclude by noting that the American economic philosophy has evolved somewhat since the 18th century. Adam Smith wrote in the Wealth of Nations that a prosperous country is dependent

upon capital, labor, and mineral resources. Today, knowledge moves the world. As the scientist and inventor Rajim Grabera put it, trillions of dollars, millions of jobs, and economic and geopolitical power flow from the exploitation of technologies which have deep roots in science.

To illustrate, in 1947, intellectual property comprised less than 10 percent of all American exports. Today, that figure is well over 50 percent. We all understand the link between the PTO and the protections afforded inventors who drive this information economy. The PTO is a world-class agency now, but we must work with the Director to make it an even more efficient and productive one.

I now yield to the gentleman from North Carolina, Mr. Watt.

Mr. WATT. Thank you, Mr. Chairman. Let me start by congratulating Chairman Goodlatte on his selection as Chair of this Subcommittee. I feel very humbled and honored to be the Ranking Member, and especially serving with somebody who has a reputation for being knowledgeable in the area and interested in innovation and moving forward in this area. I dare say that we'll be a lot more philosophically aligned than I was with my Ranking Member on Financial Services last time, Ron Paul. So I am looking forward to that.

I am also looking forward to serving with people that I know have a great, great deal of knowledge on this Subcommittee about intellectual property, Howard Berman, Zoe Lofgren in particular on our side; Howard Coble; and the Chair on the other side, among others. I don't mean to exclude anybody about their knowledge, but I know that there is a long, deep bench of people with a lot of knowledge on the Subcommittee, and I am looking forward to learning more about the subject matter and being an important part in this process.

I also think it is important to thank the Chairman for convening this hearing to look at both the inner workings of the United States Patent and Trade Office and on the direct impact the services provided by the Patent and Trade Office have on the national economy in general and on job creation in particular. While I have had an ongoing interest in and appreciation for the important roles that intellectual property and innovation play in our economy, my new role as Ranking Member of the Subcommittee will no doubt afford me the opportunity to delve much more deeply and intensively into the legislative policy choices at play in this important area.

As a former attorney with mostly a small business practice, I understand the value of innovation and helping to sustain, stimulate, and grow a company. However, innovations can only provide a positive impact to the economy if they are actually put into use. If innovations are buried in

backlogs at the Patent and Trade Office or in the security boxes of companies or even in the minds of inventors, they can generate no economic value.

There's little disagreement that the efficient operation of USPTO is vital, to paraphrase the Department of Commerce, to unleash innovation, promote economic growth, and produce high-paying jobs. While I am not privy to the President's State of the Union speech, I would be shocked if innovation is not a major component of his

comments tonight and a major part of what will surely be his strong push for economic growth and job creation.

In this environment of budget cuts, we must make smart and informed choices, and I trust that our witnesses here today will start us down that road. I just hope that in the larger push for global budget cuts or a balancing of the budgets, my colleagues will stand with me against throwing out the baby with the bath water and giving this important agency the important resources it needs to allow innovation and job creation.

With that, Mr. Chairman, I yield back the balance of my time.

Mr. GOODLATTE. I thank the gentleman. And without objection, other Members' opening statements will be made a part of the record. Before I introduce our first witness, I would like him to stand and be sworn.

[Witness sworn.]

Mr. GOODLATTE. We'll have two panels today. Leading off is the Honorable David J. Kappos, the Undersecretary of Commerce for Intellectual Property and Director of the United States Patent and Trade Office. In this role, he advises the President and Secretary of Commerce and the Administration on intellectual property matters. Before joining the PTO, Mr. Kappos led the intellectual property law department at IBM. He has served on the board of directors of the American Intellectual Property Law Association, the Intellectual Property Owners Association, and the International Intellectual Property Society. He has held various other leadership positions in intellectual property law associations in Asia and the United States and has spoken on intellectual property topics around the world.

Mr. Kappos received his Bachelor of Science degree in electrical and computer engineering from the University of California at Davis in 1983, and his law degree from UC Berkeley in 1990. Welcome.

TESTIMONY OF THE HONORABLE DAVID J. KAPPOS, UNDER-SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, UNITED STATES PATENT AND TRADEMARK OFFICE

Mr. KAPPOS. Thank you very much, Chairman Goodlatte, Ranking Member Watt, Members of the Subcommittee, for this opportunity to discuss the state of the USPTO. First, I'd like to applaud you for the caption of this oversight hearing. In my view, it is spot on. The work that we do at the USPTO creates jobs for Americans—high-paying jobs in innovation-based industries critical to our Nation's prosperity. We create the jobs that can accelerate our country's economic recovery. Our patent and trademark grants give American innovators the protection they need to attract investment capital, to hire workers, to build companies, and to bring new goods and services to the marketplace.

But, to be successful, the USPTO needs to be well-managed and appropriately funded. We've implemented a broad array of changes during the last year and a half, which have refocused our resources on our most important work, including reducing our current patent

application backlog. But ensuring stable funding for USPTO will continue to be critical to our success.

Mr. Chairman, I am pleased to report that our dedicated employees have made progress in a number of important areas. Our patent operations set all-time records in total agency output, including both the number of patents granted and the number of applications rejected. As of the end of financial year 2010, we reduced the backlog of utility patent applications to about 708,000, the lowest level in several years. We've seen sustained and substantial decreases in actions for disposal, which are an indication that patent application issues are being resolved more efficiently. Importantly, these accomplishments have been made without any sacrifice in quality. In fact, our quality metrics have actually risen even while productivity has improved. We increased our total number of interview hours, the time spent working with patent applicants to understand their inventions and to resolve issues a full 40 percent last year, to 140,000 interview hours, another all-time record for our agency.

We put a number of market-driven pilots into action, including accelerated examination of green tech applications and a project called Exchange, as well as our three-track prioritized examination process that we expect to move forward with soon.

Working with our patent examiners' union, POPA, the USPTO has installed a new examination count system. It gives our examiners more time to examine patent applications, increasing quality while incentivizing earlier resolution of issues, resulting in improved examination efficiency. We've substantially expanded our work-sharing arrangements with other major patent offices worldwide to speed the processing of applications filed in multiple jurisdictions. In fact, in FY 2010, we more than doubled the total usage of our

benchmark patent prosecution highway over all previous years combined.

Mr. Chairman, my written statement contains more detailed information on the array of initiatives we've got underway, all geared toward helping to empower and unleash America's innovators in their capacity to create jobs. While we are aggressively making changes at the Office, I want to express the Administration's support for continuing congressional efforts to enact patent reform legislation. Enactment of a number of the proposals considered in recent years will significantly improve our patent processes, reduce litigation uncertainties and costs, and increase the value of patent rights for American innovators.

Finally, ensuring stable funding for USPTO will continue to be a critical part of our success. As such, I want to provide a very brief overview of our current funding situation. Fee collections at USPTO are running very strong as a result of the improving economic outlook, strong patent renewal rates, and our increased production. We're getting more done and collecting more fees in doing so. As you know, to enable these efforts, the President's FY 2011 budget proposes that USPTO be permitted to spend all of the fees it collects, and proposes a 15 percent surcharge on patent fees.

Unfortunately, despite our strong fee collection, as a result of the current continuing resolution, the USPTO has been forced to implement spending reductions. These include restricting examiner over-

time, delaying critical IT projects, and slowing down on hiring. Should the continuing resolution be extended beyond March 4, and hold the USPTO to the FY 10 funding level, we'll be forced to halt all hiring, all overtime, and all IT improvements. This, unfortunately, would reverse many of the gains we've begun to make.

Mr. Chairman, we wish to work with you and our appropriators to ensure that the job-creating,

deficit-neutral work conducted at the USPTO for the benefit of our Nation's innovators is supported in whatever final spending package is enacted for the remainder of 2011.

Thank you.

Mr. GOODLATTE. Thank you, Mr. Kappos.

[The prepared statement of Mr. Kappos follows:]

STATEMENT OF
DAVID J. KAPPOS
UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY
AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE
Subcommittee on Intellectual Property, Competition and the Internet
COMMITTEE ON THE JUDICIARY
U.S. House of Representatives
USPTO Oversight Hearing
“How an Improved U.S. Patent and Trademark Office Can Create Jobs”
JANUARY 25, 2011

I. INTRODUCTION

Chairman Goodlatte, Ranking Member Watt, and Members of the Subcommittee:

Thank you for this opportunity to discuss the United States Patent and Trademark Office's (USPTO) operations, programs, and initiatives. The number one goal that Commerce Secretary Locke and I set during the last year and a half has been to focus our resources more effectively on improving overall operations and reducing the time it takes to get a patent. Today, I will explain why this is critical to improving our economy and creating jobs, and then focus my testimony on how we are improving operations at the USPTO.

Innovation continues to be a principal driver of economic growth and job creation in the United States. Intellectual property (IP) delivers that innovation to the marketplace. We at the USPTO are proud of the role we play in serving America's innovators and granting the patents and registering the trademarks they need to secure investment capital, build companies, and bring new products and services to the marketplace. The work we do at the USPTO directly contributes to strengthening our economy and creating jobs.

To be effective in carrying out our mission, the USPTO must be well-run and appropriately funded. While we continue to face financial challenges, I am pleased to report that, during the last year, the USPTO has increased patent production, reformed key processes, and improved quality. During the last year we also developed and issued a metrics-based strategic plan to strengthen the capacity of the USPTO and ensure that our resources are appropriately focused on our strategic goals. These accomplishments have helped us begin to reduce the significant backlog of applications pending at the USPTO.

II. PATENTS

Mr. Chairman, our greatest challenges at the USPTO continue to be on the patent side. Uncertainty about funding constrained our ability to hire or allow examiners to work overtime on

pending applications during the last year. Despite this challenge, our Patents Operation set records as to the number of patents granted and applications rejected. In fact, as a result of all of our productivity measures, we actually were able to work nearly a 13-month year -- accomplishing almost 13 months of work at our 2009 pace, in the 12 months of 2010. Importantly, this accomplishment was made without any sacrifice in quality. In fact, our non-final in-process compliance rate and our allowance/final compliance rate have increased at the same time productivity has improved.

The year's total production units were 522,407 versus 504,481 production units in FY 2009. Allowances have increased from 189,120 last year to 240,438 this year. Final rejections ended the year at 258,436, compared to 238,497 for the same period in FY 2009.

The initiatives described below represent some of the improvements we made to our operations during the last year, to fuel the performance mentioned above.

Patent Backlog Reduction

- The USPTO's Patent Operation is focused on optimizing patent quality and timeliness. This supports the Department of Commerce's strategic objective to facilitate intellectual property protection by reducing patent pendency and increasing quality of issued patents. In January 2009, the USPTO faced a backlog of more than 764,000 utility patent applications. By the end of FY 2010, we reduced the backlog of applications to 708,535. With the ability to hire new examiners and allow experienced examiners full overtime, our goal is to reduce the backlog to approximately 658,000 by the end of FY 2011. In FY 2010, first action pendency was 25.7 months. Our projections show that first action pendency will decline to 23 months by the end of FY 2011.

Revised Examiner Count System

- The USPTO and our Patent Office Professional Association (POPA) have implemented a new production crediting system -- the tool we use to measure examiner performance and output. The new system provides more time for examination and more credit for first actions, which emphasizes high quality examination and puts a focus on quality early in prosecution. We are now seeing positive indicators such as the number of actions per disposal at approximately 2.4. This is down from more than 2.9 in FYs 2008 - 2009 and represents a significant increase in efficiency. The new system has also contributed to a reduction of the growth rate of Requests for Continued Examination (RCEs). In FY 2009, RCE applications grew by 23.1% over FY 2008. Due, in part, to successful implementation of the new production credit system, RCE growth in FY 2010 was only 10.7%, even in the face of rising Office production overall.

Compact Prosecution/First Action Interview Pilot

- We are using several vehicles to encourage Compact Prosecution of patent applications. Compact Prosecution is a change in practice and culture that encourages the examination practice of expeditiously identifying the core issues with patent applications and resolving them. One way to encourage such practice is to increase communication between applicants and examiners through interviews. Interview time granted in FY 2010 increased by more than 39% from FY 2009.

-
- One of our programs contributing to the increased rate of interviews is the First Action Interview Pilot Program. The program allows participants to conduct an interview with the examiner after reviewing the results of a prior art search conducted by the examiner. This program was recently expanded to include additional technical areas, enhance efficiency, and provide more options to participants. Since inception, 1,164 applicants have availed themselves of the program. One major indication of the success of the program is the first action allowance rate of 33.6%, compared with an overall first action allowance rate of 15.5%.

Supervisory Patent Examiner (SPE) and Examiner Performance Plans

- The new SPE Performance Appraisal Plan (PAP) provides increased recognition of key SPE activities in coaching and mentoring examiners in their art units. The new PAP reflects the important and broad roles and responsibilities of SPEs, and gives rating officials greater flexibility to provide fair and accurate assessments of SPEs' accomplishments. We also worked with representatives of POPA to better align the performance standards for patent examiners with the USPTO's goals for increasing quality in patent examination and reducing the backlog of pending patent applications. This collaboration has resulted in the first major revision to the patent examiners' PAP since 1986, better aligning examiner goals with those of the agency, better defining expectations and measures for success, and encouraging mentoring and training – all while ensuring transparency and clarity. These PAP changes are an important step forward that will help create a foundation for future USPTO success.

Targeted Hiring of Experienced Professionals

- To increase our ranks of talented and dedicated patent examiners, we launched a targeted hiring program to focus on recruiting experienced former examiners and IP professionals. The program places more emphasis on recruiting candidates with significant IP experience to reduce training time and allow new examiners to begin examining patent applications within weeks of starting employment. In FY 2010, the USPTO hired 276 patent examiners, of which 98 were IP experienced hires. In FY 2011, our goal is to recruit a high proportion of experienced IP hires.

Revamping USPTO's Classification System

- To reduce the administrative burdens faced by our examiners, we are reengineering our patent classification system -- which is how we assign applications for examination and is critical to effectively locating prior art. Higher quality classifications mean higher quality searches and patent examination and lower costs for American inventors. The USPTO and the European Patent Office (EPO) have begun working together toward the formation of a joint patent classification system. Unlike other major patent document classification systems, the U.S. patent classification system is not based on the International Patent Classification (IPC) system because it predates the IPC. One of the goals of the partnership is to align the U.S. and the EPO classification systems with the IPC, which is administered by the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. The jointly developed classification system will be more detailed than the IPC to improve patent searching. As a result, the two offices will move closer to eliminating unnecessary duplication of work, thus promoting more efficient examination, while also enhancing patent examination quality.

Providing More Options to Applicants

- Because there are shortcomings in any one-size-fits-all system, the USPTO is proposing to adopt private sector business practices and offer market-driven services. We have been experimenting with various ways of enabling applicants to receive accelerated review of applications filed in technology areas that are critical to our Nation's future, such as green technology. The USPTO will continue to identify and implement the efficiencies, tools, and policies necessary to increase the number of applications it is capable of examining and disposing (via rejection or issuance).
- **Green Technology Pilot Expansion:** Recently, we extended the USPTO's successful Green Technology Pilot until December 31, 2011, or until 3,000 applications have been accepted into the pilot, and eliminated the previous requirement that applications had to be filed with the USPTO before December 8, 2009, and classified in specific technology areas at the USPTO.

To date, there have been more than 1,100 petitions granted for entry into the Green Technology pilot, and 160 of these applications with granted petitions have already issued as U.S. patents. Currently, the average time between granting of a Green Technology petition and first office action on the merits is just 52 days, and all 160 patents were issued within 12 months of the petition decision date -- significantly faster than standard examination.

- **"Three Track" Program:** Last fall, we proposed a new patent examination initiative that would provide applicants greater control over the speed with which their applications are examined. The "Three-Track" program would enable processing within 12 months for those applications deemed by applicants to be their most important applications. The USPTO expects to soon issue a notice of proposed rulemaking to implement the prioritized examination track (Track I) of the program, and plans to move forward with the remainder of the Three-Track program within the next few months. Under the proposed initiative, an applicant may request:

Track I: A prioritized examination process with a 12-month completion target (including a cost recovery fee).

Track II: The traditional examination process, which currently takes 34 months on average to complete.

Track III: For non-continuing applications, an applicant-controlled delay lasting up to 30 months prior to docketing for examination.

- **Provisional Application Changes:** The USPTO has implemented a Missing Parts Pilot Program which effectively provides a 12-month extension to the existing 12-month provisional application period, allowing applicants additional time to attain financial help, evaluate a product's worth in the marketplace, or further develop the invention for commercialization.

II. TRADEMARKS

Similar to the trends in patents, during the last year we have seen trademark filings increase. The USPTO Trademark Organization continues to meet its goals and is looking at additional process improvements.

- The Trademark Organization has consistently met first and final action quality targets above 96%. Nevertheless, seeking continuous improvement, the USPTO has sought input from stakeholders in determining how to define excellence. To raise the bar even further, a new measure to assess comprehensive excellence in office actions, which expands upon the existing first and final action standards for correct decision-making, has been established.
- Trademark processing and examination have been at a steady rate, with first action pendency at or below 3 months for the past four years, and total pendency below 13 months for the past three years. The challenge is to maintain trademark first action pendency on average between 2.5 and 3.5 months with 13 months or less for final pendency by balancing forecasted new filings with workload, existing inventories, and examination capacity.
- As electronic filing and processing have become the primary means of conducting business within the Trademark Organization, efficiency and timeliness of examination have also improved. Fewer than 2% of applications are filed on paper and 68% of all applications that register or abandon trademark rights are processed electronically.

III. POLICY AND INTERNATIONAL

The USPTO plays a significant leadership role in promoting effective domestic and international protection and enforcement of IP rights and serves as the President's advisor, through the Secretary of Commerce, on questions of IP policy.

Enforcement of IP Rights and IP Law Development

- The USPTO works closely with the White House's IP Enforcement Coordinator and other agencies in the Administration to help formulate and implement a robust and effective IP enforcement plan. Related efforts by the USPTO include high-level IP rights training and capacity building programs for key IP officials from around the world through our Global Intellectual Property Academy (GIPA); work by our six IP Attachés -- located in U.S. Missions around the world -- with U.S. trading partners; and advice to other Federal agencies, including the United States Trade Representative (USTR), on IP policy matters.

Work Sharing

- Work sharing is an important tool for speeding the processing of applications filed in multiple jurisdictions, and we are focused on expanding and improving our work sharing practices.
- The USPTO has implemented the Patent Prosecution Highway (PPH) with other major patent offices worldwide, and our goal is to double the number of PPH cases year over year. By the end of FY 2010, the total number of PPH requests filed exceeded 4,100, more than double the total of 1,973 requests received in all of FYs 2006 through 2009 combined. Our goal for FY 2011 is to reach a total of 8,000 PPH requests. We are also piloting aspects of a concept known as SHARE (Strategic Handling of Applications for Rapid Examination). Under SHARE, the USPTO will prioritize and balance workloads to maximize the re-use of foreign search and examination results.

Chief Economist

- To better understand the role played by IP in fostering a stronger and more internationally competitive U.S. economy, we established the Office of the Chief Economist (OCE). The Chief Economist is responsible for advising on the economic implications of policies and programs affecting the U.S. IP system and for developing a better understanding of the economic implications of IP-related policy and operational decisions and activities. Our Chief Economist has established an ambitious research agenda, refined it through interactions with the IP-economics community, and is now refining the data sets that will enable execution of the research agenda.

IP Educational Outreach to U.S. Businesses

- The USPTO provides IP educational opportunities to domestic small and medium-sized enterprises (SMEs), to universities, and to the public at large. These opportunities include outreach to Native American tribes, programs on IP awareness in exporting, and China Road Shows providing IP information to SMEs seeking to do business in China.

Intellectual Property in the Internet Age

- The USPTO has partnered with Commerce's National Telecommunications and Information Administration (NTIA) and the Office of the Secretary, as part of the Internet Policy Task Force, and with stakeholders, to conduct a comprehensive review of the availability and protection of copyrighted works online and innovation in the Internet economy.

Patent Policy

- In 2010, the USPTO co-hosted a day long symposium with the Antitrust Division of the Department of Justice and the Federal Trade Commission which included several panels of economists, attorneys, entrepreneurs, and other government and private industry specialists discussing the intersection of competition and patent policy.

IV. INFORMATION TECHNOLOGY

Our current IT infrastructure at the USPTO is outdated, limits our efficiency, and costs the agency valuable time and money. Last year, we began undertaking an overhaul of that infrastructure.

- On the trademark side, the USPTO is upgrading its Trademark IT infrastructure -- our NextGen project -- to improve the stability, availability, and performance of the systems that support trademark examination and public access to Trademark Office information.
- On the patents side, we are building a new patent examination IT system from end to end. This project, known as "Patents End-to-End (PE2E)," includes the reengineering of pre-examination, examination, and publication processes. PE2E will provide a new core architecture including improved reliability and availability for all automated systems.

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- We are continuing to enhance our support for all USPTO employees, including replacing their office desktop hardware and software with a universal laptop running "Windows 7" and "Office 2010;" upgrading our campus broadband connection to support increased teleworking and modern collaboration tools; replacing our collaboration tool suite to support improved video, messaging, presence, and file sharing; and providing Voice-over IP throughout the campus and to homes of teleworking employees.

V. OTHER OPERATIONAL ISSUES

Telework

- The USPTO is committed to expanding telework programs agency-wide. The USPTO has shown how a teleworking program can be run effectively and in fact increase productivity, and our program has been a model for others within the Federal government. In 2010, that commitment continued with growing opportunities for eligible employees to telework. We appreciate the Committee's support for enactment of H.R. 1722, the Telework Enhancement Act of 2010, which includes provisions specific to the USPTO that will enable us to further expand and improve our teleworking programs.
- As of the end of last year, 5,915 USPTO employees teleworked (83% of eligible positions); 2,739 of these were teleworking 4-5 days per week.
- In FY 2010, as part of our telework efforts, the USPTO implemented an Enterprise Remote Access (ERA) Portal. We also won the *Innovative Application of Technology to Support Telework* award. Further, during the past year, the USPTO met with and advised 30 agencies and organizations interested in starting or expanding their respective telework initiatives.

Nationwide Workforce Program

- Last month, the USPTO announced plans to pilot a satellite office in Detroit, Michigan, in 2011 – the USPTO's first outside the Washington, DC metro area. We expect the new office to create more than 100 new jobs in its first year and provide a boost to the region's innovation economy. The Program represents an effort to recruit and retain highly skilled patent examiners and seek out additional resources and technical expertise in locations across the country.
- Following initial steps forward with the first satellite office, the USPTO will consider expanding the program, which would provide the patent applicant community and our Nation's innovators greater access to the USPTO and the services it offers. Expansion will offer us an even wider applicant pool for those who may be interested in USPTO employment, but do not wish to relocate to the Washington, D.C. area.

Organizational Leadership Development

- In FY 2010, the USPTO implemented an agency-wide Leadership Development Program featuring a world-class portfolio of online tools, resources, job aids, and classroom and computer-based courses. The program provides a diverse set of developmental strategies to help supervisors and employees improve their leadership competency as well as strengthen leadership values, knowledge, skills, and abilities. The program is easily accessible, technologically savvy, and advances organizational development by cultivating a culture of

continual learning and professional growth. The USPTO program has been recognized as a model of excellence and shared government-wide to assist other agencies that are considering launching similar initiatives. In FY 2010, USPTO also created a Senior Executive Service (SES) Council to develop USPTO senior leaders to their maximum potential by bringing them together to regularly network, engage with speakers from within the agency and externally, discuss agency strategic priorities, and collaborate by sharing knowledge and resources across Business Units.

Diversity/Outreach

- The USPTO is committed to broadly recruiting qualified and diverse job seekers and has been successful in those efforts. The USPTO actively recruits nationally at Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and universities with programs for people with disabilities. In the fall of 2010, USPTO recruited at several minority serving institutions such as the University of Puerto Rico, Howard University, Morgan State University, Arizona State University, and Rochester Institute for Technology - The National Technical Institute for the Deaf.

Transparency

- To increase USPTO communications with various audiences, we have significantly expanded the amount of information available online to include annual performance and accountability reports, patent examiner training materials, testimony and speeches from USPTO officials, and relevant program and policy information.
- In 2010, we launched "Inventors Eye"-- a bi-monthly newsletter for the independent inventor community. Each issue covers topics of interest to independent inventors and stories about people who have become successful inventors. It also includes tips on working with the USPTO and information on events, organizations, and meetings of interest to the inventor community.
- We also launched the Feedback Channel -- where the public can comment on various USPTO initiatives including the Green Tech pilot program, Project Exchange, and others.
- The USPTO continued to expand its public outreach efforts with the launch of an online Subscription Center. The Center enables the public to easily subscribe, via e-mail, to an array of USPTO newsletters and alerts. The hub, located on the USPTO Web site at: www.uspto.gov/subscribe, enables the public to sign up to receive one or more "subscriptions" via email, including press releases, Director's Forum blog posts, new issues of "Inventor's Eye," a new monthly recap of recent USPTO activities, and patent and trademark alerts. This provides a convenient way for people to stay current with the latest information from the USPTO.
- We also launched a number of communication tools to facilitate dialogue between USPTO management, employees, and the stakeholder community at large. We launched a public "Directors Forum" blog, and we have begun sending the Director's blog out via feedburner on a weekly basis.
- Building on the success of the weekly Director's Forum blog, we expanded our use of social media channels in 2010. By using popular social media tools such as "Facebook" and "Twitter," we are able to share information with a much wider audience. Our web site will

continue as the news source of record for the USPTO, but Facebook and Twitter allow us to engage and interact with the public in new ways and to reach a broader audience.

- Our Data Visualization Center, or “dashboard,” allows our stakeholders to monitor our progress each month in a number of key performance metrics such as patent pendency and backlog. When we are reaching our goals -- and when we are not -- our stakeholders will be able to track our progress on a monthly basis as this data is updated regularly.

VI. FUNDING OVERVIEW

Finally, ensuring stable funding for the USPTO will continue to be a critical part of our success. As such, I want to provide an overview of our current funding situation.

Fee collections at the USPTO remain strong as a result of an improving economic outlook, strong patent renewal rates (maintenance of existing patents in force), and our increased production. As you know, to enable our efforts, the President’s FY 2011 Budget Request proposes that the USPTO be permitted to spend all of the fees it collects and proposes a 15 percent surcharge on patent fees.

The USPTO’s budget is fully supported by the fees it collects and uses no taxpayer funds. Our spending authority under the continuing funding resolutions and the lack of a surcharge assessment through early March, however, represent foregone revenue of approximately \$115 million as compared to what was proposed in the President’s FY 2011 Budget request.

As a result of operating under the current Continuing Resolution, the USPTO has been forced to implement several spending restraints. These include restricting examiner overtime, delaying critical IT projects, and slowing down hiring. Should the Continuing Resolution be extended for the full year, and hold the USPTO to the prior year funding level, we will have to halt all hiring, overtime, IT improvements, and PCT outsourcing. As a result, some of the progress we have made to reduce our backlog and pendency would be reversed, and we would expect these key metrics to begin moving in the wrong direction.

These actions will prevent the USPTO from reaching the pendency and backlog goals that were laid out in the President’s Budget and Strategic Plan.

We will continue working closely with the Congress and the Department of Commerce in planning and preparing our strategic priorities and budget requirements to ensure our goals and initiatives are properly supported.

VII. Conclusion

The initiatives detailed above catalog a broad-based, aggressive effort to entirely reengineer the USPTO. Of course, the success and progress toward reaching our goals – including improved quality and reduced pendency and backlog – are dependent on a number of elements. Our FY 2011 budget provides the framework for a sustainable funding model to enable us to continue the work we have started to make critical changes so that the USPTO is supporting innovation, enabling investment, and contributing to U.S. economic recovery.

To this end, the USPTO strongly supports comprehensive patent reform and applauds the efforts of Members of both the House and Senate to continue to push for these reforms -- particularly

Chairman Smith, Ranking Member Conyers, Rep. Berman, Chairman Leahy and Senators Sessions and Hatch, who have all made enacting this bipartisan jobs legislation a top priority.

Proposals in this legislation – many that will significantly improve USPTO effectiveness – have been discussed for the better part of the last 10 years. And this is the Congress where we should and must finish those many years of work.

Parties have debated proposals and amended language many times, to where we now have key provisions that most parties support and that – without a doubt – will add more certainty to litigation, enable greater work sharing between the USPTO and other countries, and help the USPTO continue with the operational changes we know are needed to support innovators, help companies create jobs and put new, and better products in the marketplace.

President Obama talked about patent reform in his meeting with CEOs last month. Secretary Locke has been, and will continue to be, a true champion in this endeavor. And, I am committed to continue working with Congress to put forth the best legislation possible.

And to do so, it will be important to use what we have learned from recent litigation and court decisions and from the previous Congressional attempts at Patent Reform.

We appreciate your continued leadership and support of the USPTO and look forward to working closely with you and the Members of the Subcommittee to meet the challenges before us.

Mr. GOODLATTE. These bells are for votes that are going to take place on the floor. I do think we have enough time to get my questions in. So in order to keep things moving, I'll go ahead and begin the questioning, and then we'll recess, and we will come back and continue the questioning after the votes.

The issuance rate for patents has risen appreciably during your tenure, even though examiners can devote more time to reviewing under the new count system. What accounts for this swing, and what does it say about patent quality? In the late 1990's and early 2000's, critics were complaining about too many patents being issued.

Mr. KAPPOS. Yes, thank you, Chairman Goodlatte, for that question. So at the surface the juxtaposition of giving more time to examination, right, but having more patents come out, even when you have few examiners, which is what we were dealing with last year, sounds like the classic riddle wrapped within an enigma. It is not at all. It's a matter of basic management. What we've done is give examiners more time upfront to examine applications while giving them all the incentives to reach out to applicants and engage in discussions with applicants, conduct interviews with applicants, and move beyond what was the ships-passing-in-the-night problem to instead understand the issues and figure out how to either grant the patent or reject it.

So this is why I said we not only set a new record in granting patents last year, we also set a new all-time world record for the USPTO in rejecting applications. I believe that we're doing an excellent job at our job, which is calling balls and strikes, and it's borne out by our quality data which actually showed that quality went up, not surprisingly, when we gave examiners more time, starting last year.

Mr. GOODLATTE. Your predecessor, Mr. Dudas, one of the metrics he used in measuring quality was the lower allowance rate, i.e., he would argue that the PTO was doing a better job of catching bad applications. How do you compare yourself to that? Do you apply the same metric, or do you think that a lower approval rate is a good measure of the quality of the patents being approved or not?

Mr. KAPPOS. I don't apply that metric at all. Frankly, I think that is the wrong metric. Our job is to grant those patents that should be granted with appropriately scoped claims and to reject those that shouldn't be granted. What I believe, after many years of practice in this area, is that most of the patent applications filed at the USPTO are filed by dedicated, brilliant, smart, innovative Americans, and they're really not about saying no, you don't get a patent. They're about finding the appropriate scope for which a patent should be granted. I have absolutely no problem with the allowance rate going up, so long as our quality remains high, as it has.

Mr. GOODLATTE. Let me go on to the next question. The PTO began a 12-month pilot in December 2009, that advances patent applications out of turn if they related to green technology. Does this suggest that the Administration favors industrial policy-making? Is the PTO trying to pick winners and losers in the business world? And what other forms of technology are favored in this way?

Mr. KAPPOS. Well, I'm not looking to pick winners and losers. The purpose of the green tech pilot was to shine a light on an important area very, very broadly defined. It goes all the way across from fuel cells and solar technology to reduced power electronics and the like. We are about to announce very, very shortly, within days, what we will call track 1, which is a new, across-the-board acceleration initiative that will capitalize on what we learned from green tech and apply it to all areas of technology. Under track 1, we'll be offering to any applicant merely for payment of the fee, to get them their First Office Action within 3 months and get them a conclusion on their patent application within a year.

So we're benefiting from what we learn from experiments like green tech and we're moving to be able to go into production mode to be able any applicant at the USPTO merely for payment of a fee to get in and out of our agency at a rate that enables them to get jobs and put products in the market quickly.

Mr. GOODLATTE. Does that mean that you will wrap the green technology initiative into this other new initiative or are you going to have now three tiers?

Mr. KAPPOS. So that's a great question. Our ultimate plan is, over time, to start folding these other initiatives into what we're calling track 1. We're creating the infrastructure behind track 1 within the agency in terms of the implementation machinery so that we can fold these other initiatives into it over time and it becomes a consolidating point for what you would call these experiments that we've instituted.

Mr. GOODLATTE. So there will no longer be an industry bias, if you will, within the Patent Office, favoring one sector of creativity over others.

Mr. KAPPOS. Over time, although I would leave open the opportunity to do more experiments with small, limited areas. Medical products is one that has come up from time to time. There may be others over time.

Mr. GOODLATTE. We have now reached the second bells. And under our new protocol, we're hoping that the management on the floor will move those votes along quickly. In that regard, we need to get down there and vote ourselves. So the Committee will stand in recess and reconvene as soon as the votes are over.

[recess.]

Mr. GOODLATTE. It is now my pleasure to recognize the Ranking Member, Mr. Watt.

Mr. WATT. Thank you, Mr. Chairman. Thank you for being here with us today and for your service at the Patent Office. I just received, just before I came, Senator Leahy's introduced version of the patent bill. I notice you went out of your way to say that we need to get on with doing patent reform. I don't suppose you've had an opportunity to look at the bill that he's introduced and able to comment on it, are you?

Mr. KAPPOS. I've had an opportunity to look at it only very briefly so far.

Mr. WATT. One section of it, section 9, deals with the fee-setting priority. I would especially like to have your opinion about that. If you haven't had a chance to look at it in the detail that you need

to to give us that opinion today, that would be great if you just gave us something in writing.

Mr. KAPPOS. Thank you, Ranking Member Watt. And that is a provision that I've had an opportunity to look at and it is of quite a bit of interest. For the United States Patent and Trademark Office and for the Administration relative to fee-setting authority, we strongly support the work being done by Congress, the approach taken in the Senate bill, and past efforts in the House, in order to enable the USPTO to set our fees. It turns out if there's anything I've learned in my year and a half at the agency, it's that for this agency to move at the speed business moves and to be business-relevant, we must have the ability to adjust our fees in much more real-time. And I'll give you a quick example.

I mentioned before that we're getting ready to put our track 1 examination in place to provide 3-month First Office Action and 12-month patent disposition merely upon payment of the fee. Well, as we were fleshing that system out, the first thing we wanted to do is provide the 50 percent discount that we normally provide for small entities. Unfortunately, we cannot do that at the USPTO because that's a statutory requirement. Only Congress can do that.

Mr. WATT. So, generally, you support what he's proposed here, working in conjunction with the House to move that along. I may be getting ready to tread into some territory here that will get me into trouble. We're not very controversial usually in the Subcommittee. But I was struck that in today's CQ there's a story captioned: Conservatives Rally Against Patent Overhaul. I guess my bottom line after I read a little excerpt from it is I just kind of like to know what you make of this, this whole argument.

There apparently are some conservative organizations out there gathering signatures from some activist groups for a letter to House and Senate leaders opposing the legislation, which they cast as an attack on the American patent, a property right enshrined in the Constitution. That argument could resonate among conservative lawmakers, according to this, particularly Republicans, who have pledged to look to the text of the Constitution as a strict limit on the power of the Federal Government and dim the prospects for overhaul legislation in the Republican House.

Among the provisions of concern to conservative activists as well as some private sector stakeholders are those that would make it easier to challenge the validity of granted patents and change the U.S. Regime from first to invent to first to file system.

Now I'm not looking for controversy. Don't get me wrong. But it's always been my practice to try to deal with things on top of the table. And I'm interested in what you make of this whole potential attack. What would you make of that as an argument?

Mr. KAPPOS. Well, thank you for the question. I disagree strongly with those conclusions. In my view, the patent reform legislation that the House has worked on, that the Senate is working on, would increase the value of patents, would increase the certainty of the patent system, would support the constitutional mandate for a patent system to provide patents for inventors, would provide certainty in the law, would add value across the board to our country fully consistent with the Constitution.

Mr. WATT. I understand we've got a hearing coming up next week or sometime soon more directed at the patent. So maybe we'll get more into the arguments pro and con there.

Let me just ask this general question. We've got the State of the Union address coming up tonight. If you were giving the President the words to say about why innovation and patent protection and this whole intellectual property protection is critically important to job creation and stimulation of the economy, how would you phrase it?

Mr. KAPPOS. Well, I would use any of the examples that I hear regularly from places, including California and Texas and New York and many States that I travel to, of CEOs of small companies that come up to me and say, I recently got a patent from your agency. And when I got that patent, I was suddenly able to get my next round of venture funding. I was suddenly able to start up manufacturing. I was suddenly able to convert an expectancy of patent application into an estate, a patent right that enabled me to build my business on it and put people to work. And I hear that story over and over and over again and that's what convinces me that the USPTO really is the greatest job creator that no one has heard of.

Mr. WATT. Mr. Chairman, I think that does it for the questions I want to deal with, and I'll yield back the balance of my time.

Mr. GOODLATTE. I thank the gentleman. I am bracketed by North Carolinians up here. It's now my pleasure to recognize the Vice Chairman of the Subcommittee and previous Chairman of the Intellectual Property Subcommittee, the gentleman from North Carolina, Mr. Coble.

Mr. COBLE. Thank you, Mr. Chairman. I want to first congratulate you and Mr. Watt upon your elevation to your respective roles in leading this very significant Subcommittee.

Mr. Kappos, good to have you with us, sir. The diverting of fees has long plagued the PTO and plagued me. You may have already touched on that, but I want to put a question to you with that in mind. The United States is participating in the Trans-Pacific Partnership negotiations, which may serve as a template for future trade agreements. How can we best use these negotiations to create jobs for American workers, especially by maintaining a high level of protection for United States intellectual property rights?

Mr. KAPPOS. Well, that's a great question. Thank you, Vice Chairman Coble. The Trans-Pacific Partnership agreement is an important undertaking being lead by USTR. The USPTO is supporting USTR, and we stand with USTR for the proposition that the appropriate starting point for the Trans-Pacific Partnership negotiations is the Korea FTA. That's a great starting point. It is a strong intellectual property starting point. And we think that it will lead to good places in the TPP.

Mr. COBLE. This next question may at least indirectly apply to the diverting of fees. What are the anticipated consequences if the PTO does not receive full funding each year for, let's say, the next 5 years?

Mr. KAPPOS. Okay. Well, the consequences would be between terrible and dire, frankly, depending on how much money, obviously,

we didn't receive. The challenge that we have is the USPTO is an agency that receives money with

workload. What's been happening for the last many years is we've been spending the money that we receive this year to actually do the work that we received several years ago, which leads to a tremendous unfunded mandate. We are currently sitting on over 700,000 patent applications that are unexamined. If you add up the ones that are in examination, over one million, well over one million. If patent applicants and trademark applicants in the U.S. stop filing patent applications today, we would have several billion dollars of work to do and absolutely no funding with which to do it.

So we have got a tremendous unfunded mandate. Every time money is taken away, the unfunded mandate just becomes bigger and bigger. If our funding is constrained over the next several years, and we're unable, therefore, to hire the people we need to work on the IT improvements that we're putting in place, or to outsource our PCT-related work—which has worked extremely effective with firms right here in northern Virginia—we will see those backlogs. Instead of going down like they are now, they will skyrocket back up, patent pendency will skyrocket back up, and we will have an even larger unfunded mandate to deal with.

Mr. COBLE. Your words were “dire” and “terrible,” is that what you said?

Mr. KAPPOS. Those are good words.

Mr. COBLE. Apt words, I think, to this occasion. Thank you for being with us. I yield back, Mr. Chairman.

Mr. GOODLATTE. I thank the gentleman. It is now my pleasure to yield to the Ranking Member of the full Committee, the gentleman from Michigan, Mr. Conyers.

Mr. CONYERS. Thank you so much. I wanted to commend the idea of this Committee being made a separate Committee. I think it's a good idea. It was implemented on the Republican side, so I think it's fair to think that the idea came from that side. And so I'm happy to be here with Mr. Kappos once again.

The U.S. Patent and Trademark Office is a user-fee funded agency. Their goal is to keep all user fee dollars that come into the agency. But as we've researched this, there's about \$800 million that has—I hate to use this term “diverted” in the past—but presently, we have \$53 million from just last year that has not been appropriated. True or false?

Mr. KAPPOS. True.

Mr. CONYERS. So would you suggest—well, maybe I should suggest to you what I would like to do about it and you can comment on my suggestion. You see, it is my belief that as long as we have a 730,000 patent backlog, we are doing a huge disservice to the ability to create jobs in our society. There's been quite a bit of writing on that. And as long as that, at the rate that you're going—and I commend you—our backlog is decreasing as opposed to the fact that it was increasing. And, to your credit and your associates, we've reversed that. But it will still take decades to get out of the backlog.

And so it falls upon me as the senior Member of this Committee to recommend that we begin discussing not only how well we're

doing now, but how we get rid of the backlog, which, admittedly, is a complicated problem. But as long as—we're still presently not giving you all the fees that you should be getting, even now.

So what's the remedy, former Chairman Conyers? Well, I'm glad you asked that question. It's to begin to deal with the backlog not just from the Patent and Trademark Office's perspective, but from a national perspective. Suppose tonight at eight o'clock, this issue becomes discussed. Suppose we all collectively say, from the executive branch to the Congress, this has to be addressed even more than just keeping user fee dollars that come to the agency. Would that resonate favorably with you when the press approaches you after—later on tonight and say, What do you think of that?

Mr. KAPPOS. Well, thank you for the comment, Representative Conyers. First of all, I would say I strongly agree that the issue of the patent backlog and the need to take that down and get patents processed at a much faster rate should be viewed as a national issue. And I agree that it is disserving job creation. As I mentioned, there are innumerable actual stories of American innovators whose inventions are held up at our agency and therefore they're not able to secure their patent estate, they're not able to build their businesses, they're not able to get their funding, they're not able to go out and hire people and create jobs. And that is, frankly, a tragedy.

And it is very much, as you say, former Chairman Conyers, about money, about the USPTO simply getting to use the fees that we are collecting, the fees that are paid into the agency by American innovators for use in doing the things that we've demonstrated we know how to do to attack the backlog. If we have access to the fees that we're collecting, we can double down on the bets that we've made. We can take that backlog down to a reasonable level by 2015. It's not that far away. It's very achievable. We don't need to make any inventions to do it. We just need to keep running our plays. But it's all about getting access to the funding in order to do it.

Mr. CONYERS. Mr. Chairman, could I ask unanimous consent for 30 additional seconds?

Mr. GOODLATTE. Without objection.

Mr. CONYERS. Because our Ranking Member raised this question with me. What would be the fate of the Patent and Trademark Office if you had to go back to 2008 budget levels? I mean, that seems to me like a huge step backwards. And we're trying to talk about how we take some really drastic steps forward.

Mr. KAPPOS. Well, thank you for the question. I'll now use words even significantly stronger than I used to answer the question from Vice Chairman Coble. If we had to go back to 2008 funding levels, it would be a disaster for the USPTO. It would be a disaster in that we would have to immediately stop all of the improvements that we're making. But worse yet, it would be an incredible debilitating disaster because I would be required to furlough the USPTO employees likely for very significant periods of time. We'd be talking about a funding shortfall in excess of \$400 million. There is just no way to absorb that.

Mr. CONYERS. Thanks, Chairman Goodlatte.

Mr. GOODLATTE. I thank the gentleman. You are fortunate we won't ask you how to balance the Federal budget and meet all of these obligations.

We're operating under new protocols on the Committee which recognize Members based upon their time of arrival after the initial part. We've developed this new protocol but we haven't perfected the science of determining who arrived first. But I believe the gentleman from Utah is to be recognized next.

Mr. CHAFFETZ. Thank you. Thank you, Mr. Chairman. I appreciate it. Thank you for being here. In the short time we have, I'd like to do some math with you in understanding the size and scope of the problem that you're having with your IT infrastructure. My understanding is that back in 2001, roughly 21 percent of your budget was actually put into IT projects. Now that is down to roughly 12 percent. But that Congress had actually appropriated an additional \$200 million for additional IT infrastructure on top of the 12 percent that you're already spending.

Now my understanding is you have just less than 10,000 employees, that's correct? The way I do that math, you spent well over a billion dollars. And yet I go back and read your testimony and you say basic things like: The current IT infrastructure is outdated, limits our efficiency, and costs the agency valuable time and money. Then you go on to say, we need to start doing things to replace our collaboration tool suite to support improved video, messaging, presence, and file sharing—something that is very commonplace in the market; provide voice IP throughout the campus and to homes of teleworking employees, which is supposed to cut down the cost and make our employees more efficient.

I guess I'm struggling to understand why you're suddenly going to join the 21st century and implement Windows 7, as if that was something brand new, having spent a billion-plus dollars and yet complaining, as you say in your testimony, "On the patent side, we're building a new patent examination IT system from end to end."

So the question is: What in the world have you been doing over the last 10 years, and why is this such a crisis at this time, having spent so much money?

Mr. KAPPOS. That's a great question. Thank you very much for raising the subject of IT. So now speaking to you as an information technology professional, someone who's an electrical engineer and spent 26 years working in the information technology industry, the situation at the USPTO has not been good in an entire decade. We're still running on equipment that was installed in the USPTO well back into the 20th century, right. There's no responsible entity, no company that I know of, that would go on that way.

Mr. CHAFFETZ. But you're spending between \$10,000 and \$20,000 per employee, every single employee. On an annualized basis, you're spending somewhere between \$10,000 and \$20,000 per person. How do you, after 10 years end, up with such a dismal result?

Mr. KAPPOS. Right. So it's a little difficult for me to speak for what happened for 8½ of those 10 years when I wasn't there. As you commented though, what I've done since I arrived at the agency is apply some IT business discipline, which is when you're in a situation where you're pouring money, frankly down a rat hole,

hundreds of millions of dollars a year, into trying to keep moribund systems Band-Aided together, if you will, what you do is you stop, look, and listen. And that's exactly what I did. And that's why I've taken the IT spin down, because I stopped projects that were underway that I thought were going to be a terrible additional waste of money.

We're re-vectoring that spin over to an agile development methodology that's 21st century IT systems that all the great IT folks in the world are already using to move to what I believe will be an end-to-end patent process that will truly propel our examiners.

If you went over to the USPTO right now—and I'd love to have anyone in the Committee come over there—we'll show you the prototypes of the system that our examiners are beating on right now over at the USPTO and we'll show you the enormously positive feedback and, frankly, functional feedback that we're getting from our examiners, telling us that they appreciate that we stopped, looked, and listened; they appreciate that we're now listening to them and that we are taking our IT in a direction that meets their needs first and foremost and not wasting more money.

Mr. CHAFFETZ. And I do appreciate that. Mr. Chairman, I do think it's nothing short of scandalous that here's an agency that needs funds to process patents, and yet they've spent 10 to over 20 percent of their budget on IT, and we find ourselves 10 years later thinking that maybe Windows might be a good way to go. So I think it is scandalous. I appreciate your approach to this. This is not exclusive to the Patent Office. This is something that is pervasively a problem throughout the Federal Government. I think it's an embarrassment.

And I would appreciate your continued

follow-up because technology is supposed to make our life better, easier, more efficient, more effective; allow the public to see what we're doing. And to alleviate the pains and challenges that we have by simply just saying oh, we need to hire more people, and we're spending more than enough money, we need to demand better results. So I appreciate that. I yield back the balance of my time.

Mr. GOODLATTE. I thank the gentleman, and now yield to the gentleman from Texas, Mr. Poe.

Mr. POE. Thank you, Mr. Chairman. Just buttressing off of what my friend from Utah said, maybe the Patent Office ought to use some of those patents that they approve so that they can be more efficient down the road. I believe we need—I'll try to keep it simple—more innovation, swifter patents, more jobs, and a whole lot less pirates and thieves in our patent system. I'd like to concentrate on the pirates, the thieves, and the bandits, but I'm not going to at this time. Later we'll get to that.

I'm not sure I'm convinced that this new proposed legislation is the answer to some of the concerns that we all share. How do we compare to our competitors—Japan, for example—on backlogs of patents?

Mr. KAPPOS. Well, thank you, Representative Poe, for that question. It turns out that I completely agree our backlog is much too long. Secretary Locke and I are making that an ongoing signature issue. And we're not going to rest until we get our backlog down to acceptable levels and our pendency right where we need it to be.

That being said, it turns out if you go overseas—if you go to Japan, if you go to Europe—you find that pendency levels there are actually quite long, and in many cases, longer than in the U.S. They have slightly different patent systems, so it can be a little difficult to compare apples to apples.

But if you normalize away the differences, what you find is the pendency levels overseas are quite long also. That doesn't mean they're optimal. That doesn't mean we're going to settle for that approach in the U.S., but they are comparably long overseas.

Mr. POE. So they have a backlog just like we do, or they take about the same amount of time?

Mr. KAPPOS. They do take in order of magnitude, the same. In fact, in Europe, they actually take longer in a lot of cases.

Mr. POE. A hypothetical—it's not really a hypothetical. In southeast Texas, I represent a wrecker service, Sammy Mahan is the owner; he's developed a new winch for his wreckers, his trucks. He files that with the Patent Office. How long, assuming that he gets a patent, will he be able to see the patent? When will he be able to receive that in that hypothetical case?

Mr. KAPPOS. In the current system, if you file today, he'd be seeing—I'm doing this out of memory, obviously—but in an aggregate, he'd be seeing a First Office Action somewhere around 24, 25 months down the road. So let's say 2 years or so. However, with the track 1 initiative that we're going to be putting out in the Federal Register within days, that same inventor of a winch would be able, for just paying a fee, nothing else required, would be able to receive first response within 3 months, and receive his patent within a year or less.

Mr. POE. And how much is the initial fee that he pays for that, approximately?

Mr. KAPPOS. Approximately the initial fee is going to be \$4,000. And we'd love to be able to discount it for that small entity in southeast Texas, but we're going to need your help in order to do that because it requires a legal change.

Mr. POE. In your own opinion, the fees that inventors pay, do you think that it's about right, too low, too high? Just your opinion.

Mr. KAPPOS. Well, I think the USPTO actually is a tremendous deal for patent filers. We're less expensive than our overseas counterparts; much less expensive than Europe, much less expensive than patent offices in developed countries in Asia. We actually are very reasonably priced. Our filing fees for patent applications tend to be priced at a cost that are lower than the actual cost of performing the services, right. And that money is made up by back-end fees that are charged for renewals or what's called patent maintenance. But in aggregate, if you go across the board, the cost to get a patent in the U.S. is actually benchmark low for developed countries.

Mr. POE. And your opinion is what I asked for; do you think it ought to be lower, higher, the cost?

Mr. KAPPOS. I think it ought to be as low as it possibly can be, in aggregate, because we want American innovators to seek patent protection in our country. We want them to all have an entry point to the innovation system.

Mr. POE. All right. I'll yield back the balance of my time. Some other time we'll talk about the pirates.

Mr. GOODLATTE. I thank the gentleman. With apologizes for having overlooked her a few minutes ago, I now yield to the gentleman from Texas, Ms. Jackson Lee.

Ms. JACKSON LEE. Thank you very much, Mr. Chairman. I welcome Mr. Kappos to this hearing. In April of 2010, the U.S. Department of Commerce released a white paper entitled: Patent Reform, Unleashing Information, Promoting Economic Growth, and Producing High-Paying Jobs. Tonight, we are hoping that President Obama will focus on investment, infrastructure, and for some of us, some other issues like protecting Social Security. But you're not here to discuss that.

With that in mind, and having the privilege of serving on this Committee as a Subcommittee some sessions ago, I can't think of a more important office. We understand that the Federal Government is going to initiate a \$1 billion fund to generate new pharmaceuticals because the private sector is not keeping up or has found some reason not to invent, if you will. So I'd like to go along this line of questioning, and I do recognize fully that you were not here 10 years ago. But patent pendency is important for several reasons. First, businesses are unable to enforce their patent rights until a patent has issued.

Second, since the term of a patent begins on the date of application, patent pendency cuts into the length of time an inventor has to make use of the exclusive economic right a patent confers. And that's enormously important. And then, third, high pendency rates may lead to decreased use of the patent system and instead businesses may choose to keep their new invention secret. I wonder if that is allegedly the cause of the issue dealing with pharmaceuticals. But I'd like you to answer the question regarding funding.

Did the role—or what role do you think the lack of funding played in the creation of the current backlog? And this backlog was two sessions ago, so I know it's been a while that we've had this backlog. I would like for you to also answer what are the consequences of not getting funding for the next 5-year stretch. And beyond the technology, since I've heard some of my colleagues critique where we are in terms of IT, but what are the other elements that we're going to use to move the patent process along to create jobs and to incentivize inventors—small; sometimes those who cannot fund themselves.

I used to practice law dealing with biotechnology. But what are we going to do to continue the excitement, the spirit, the inventiveness of those who don't have the funding to just hang around?

Mr. KAPPOS. Thank you, Representative Lee. Those are great questions and they go really to the heart of the reason that we're all here today. So, number one, has the funding situation—what role has it played in the inability of the USPTO to get on top of its workload. Well, it clearly did play a role in years past. Again, what I am most able to comment on is in the year and half that I've been at the agency. And I will tell you that it is the definitive issue for us. I think we've demonstrated because we've started to make progress against the backlog, we've started to bring both

what we call first action and final action pendency down. We've demonstrated we can get on top of the situation at the USPTO. It's like any other management challenge. I come from a business background. I was brought in to manage this place like a business. We can run it just like a business. That's the way we are. We can get on top of the backlog if we have adequate funding. All we need is access to the fees that the IP community, the people behind me here, are paying into the USPTO. We keep running our place, and I'll describe those in a second, and we can in just a few more year's time get on top of the backlog.

Now what place are those? Of course, hiring is undoubtedly part of the question. Patent examination is legal and technical, scientific work. It requires brain power. It requires people doing analytical and evaluative work. So we're going to need more people.

Ms. JACKSON LEE. So you need funding going forward 5 years minimally?

Mr. KAPPOS. Absolutely.

Ms. JACKSON LEE. Can you just tell me, if you didn't say before, what is the backlog now? Can you calculate, estimate what you have?

Mr. KAPPOS. So we were able to bring the backlog down somewhat. At the end of the last financial year, we had it down to 708,000. In the next few months, I expect it to go down lower than 700,000; into the 600,000's. And if we have adequate funding this year, we expect to get it all the way down to about 655,000 or so by the end of this financial year. And we're just going to keep taking it all the way down to its appropriate inventory level, and we can get there by 2015 if we have adequate funding.

Ms. JACKSON LEE. And out of that and out of your experience, and I didn't look at your bio, but let me thank you for bringing business to the government, there's nothing wrong with that, but out of that, I know that patents can generate jobs. There are a whole measure of what inventions can do for this country. Is that your sense of the value of what the Patent Office is all about?

Mr. KAPPOS. It's my conviction. I live it every day. As we issue patents, American innovators, small businesses, large businesses, independents, universities, are able to go out and create jobs. There's absolutely no doubt. There's no question about it. And we're talking high-paying jobs, we're talking innovation-intensive jobs. There is no doubt that the USPTO is a huge jobs generator.

Ms. JACKSON LEE. Let me just conclude, Mr. Chairman. Thank you for your indulgence and to the Ranking Member. Let me just say that America should not be shamed by any suggestion that its genius does not exist anymore, that in contrast to friends like China that we don't have the ability to churn this economy with the genius, the invention or the opportunity that our universities, individual entrepreneurs, and others can engage in. I think it is an important question. I'm asking from what you see, from what comes across upon the thousands upon thousands that come across your desk.

Mr. KAPPOS. Yes, I would happy to comment. That is something I feel very strongly about. The 18 months I've been in this job I've traveled every single corner of the U.S. I talk to people everywhere I go. I am 100 percent convinced the American spirit is alive and

well, every bit like it was in the 1700's when our forefathers were settling this country, that our spirit is still alive and well. The issue isn't America's ability to invent. The issue is America's ability to connect inventions right with the capital that's needed and the other resources that are needed in order to bring those inventions to the marketplace and create jobs, and the USPTO is always the first stop in that journey. Right, so we are only one part of the journey but an essential first part of the journey.

Mr. GOODLATTE. The time of the gentlewoman has expired.

Ms. JACKSON LEE. I thank the gentleman. I yield back.

Mr. GOODLATTE. I'm looking at my television screen and seeing the gentleman from California, Mr. Issa. So he obviously has got some advanced technology that he knows about. I now yield to him.

Mr. ISSA. Mr. Chairman, it is always good to multi-task here in Congress. Mr. Secretary, I haven't kept track of how many people have had your job in the 10 years that I've been doing this. I won't forget though that the first time that we had a hearing like this, it was about the Bush administration wanting to increase the cost of patent applications. In my case, it is over \$2 million for the claims of just one of my patents. I'm a funny kind of a guy. Even though I already had the patent, I looked and said, you know, I think \$2 million for a patent before it yields anything might be a little excessive for the small inventor.

So I take great pride in saying that during the last decade we ended fee diversion. You now—in spite of the appropriators, you get 100 percent of the money back to spend and you've used all of that and more. You have put yourself in a situation in which what used to be diverted funds and you lived with less is now undiverted and you consume it all.

And I do appreciate the fact that you're operating under 2010 revenue and I didn't hear the statistics supporting the increase in handling; in other words, why you would need more revenues in 2010. I didn't see the data showing why earlier you were asking for a loan because in fact patent applications were down, but you were hoping to get revenue later, and obviously today I didn't hear that some of your catchup came from the fact that your workload was also slightly off for a period of time.

So I would appreciate it if you would provide this Committee, obviously the Chairman, the data supporting each of these for your request for a 15 percent tax increase on patent applicants. If in fact it is really needed, of course patent applicants would love to pay it. But let me just go through a quick line of questioning.

Do you believe we should give you the authority to dramatically narrow the number of people who qualify as small entities?

Mr. KAPPOS. No, nor would I ask for that. I would go—

Mr. ISSA. Why would you continue to want to have me, as, for better or worse, the wealthiest Member of Congress, receiving 37 patents to come back and put another patent application in a few months ago and I'm still a small entity—don't you want to have people pay for their patents on a proportional basis to the cost so that in fact it is borne based upon the applicant's actual need for evaluation through its granting or denial?

Mr. KAPPOS. Well, so thank you for the question. If the USPTO had fee setting authority, which we don't have, I would very much

like to adjust fees so that the agency is compensated for the cost to perform its services, and that would include charging higher amounts for those patent applications that include lots of claims.

Mr. ISSA. Excellent, because—well, let's be careful about the lots of claims, because that's how we got to this \$2 million, is that it was a punitive proposal under the Bush administration by one of your predecessors where they wanted an escalation far beyond the cost. They wanted to in fact discourage people who had hundreds or thousands of claims from making those claims.

As somebody who has worked with patent examiners on repeated applications, we all know on your side of the desk that the more claims, the more redundant, the easier and quicker it is, you actually get an economy of scale, but that wasn't the proposal 10 years ago. So my question to you as a follow up to your answer is, shouldn't you be before us today with a fee adjustment scheme which fairly allows you to do what you would do if you had setting authority, but comes to the Chairman of this Subcommittee and says, we would like to have these kinds of authorities within—the fact is we can give you any scheme you come up with. You're coming here asking for 15 percent across the board, you're not looking at real reforms that adjust the cost of a particular patent or class of patent to the payment. I might suggest, today, because it has been 10 years of my caring a great deal about this issue, that that's what you should be coming to us. Come to us and show us that.

Secondly, it has been nearly 10 years of waiting for information technology to dramatically reduce the cost of a patent. It doesn't seem to have done that. So this Subcommittee has primary jurisdiction. I think all of the Committees that look at information technology are beginning to wonder how many billions will be spent without a real pay-for, and could you respond to that last question?

Mr. KAPPOS. I'm not sure if you were here when a very similar question—

Mr. ISSA. I caught part of it, but it didn't say how much longer should we should tolerate this before Congress takes a more direct role, finds an outside entity to take over this process if in fact you cannot get it done with the leadership of yourself, your predecessor and your successor?

Mr. KAPPOS. I'm confused as to what you're referring to.

Mr. ISSA. Much of your efficiency has come from sharing with other bodies; in other words, other people are doing more and more of the work. I appreciate that. It doesn't make sense to reinvent the wheel. At the same time to say that some other country is not as good, this Congress just before I arrived stripped 100 years, 200 years almost, of patent policy away, the idea that your patent was good for 17 years from granting or others based on other patents, and we replaced it with an international standard that is robbing inventors every day you delay. So although you say you're doing well, although there is an improvement, we also have to realize as this economy rebounds in the months or years to come, there will be an increase. Much of that increase is coming from foreign nationals. The gentlelady's left, but the fact is she can celebrate American entrepreneurship, but the fact is that more and more of your patents are coming from people who are not in this country who want to harvest the benefits. But notwithstanding where they

are coming from, you're robbing inventors every day. How much fees you get is less of my concern than that you get that number down. But if you're going to raise fees, and I know the Chairman's time has expired, I will just close. Why is it you can't come to us with a strategy that doesn't continue to simply raise fees on all, but comes to us with a real cost to fee basis, not a punitive one for too many applications, but a real cost of fee because I think the Chairman and all of us would love to hear a proposal that would really allow you to recoup your costs without penalizing anybody? Thank you, Mr. Chairman, for your indulgence. I yield back.

Mr. GOODLATTE. I thank the gentleman. Does the gentleman briefly care to answer that?

Mr. KAPPOS. Well, I would respond that that's exactly what I'm here talking about today in the form—as an example of the Track 1 initiative, which is purely a cost recovery initiative that enables patent applicants, large and small, to file an application today, get 3-month processing and 12-month final disposition, pure cost recovery, no more and no less than that, and on their own elective basis. So we're actually trying to implement exactly the sort of market-based approaches that you're calling for. I couldn't agree with you more, Congressman Issa, that those kind of approaches are needed.

Mr. GOODLATTE. I thank the gentleman. The Chair now recognizes the gentlewoman from California, Ms. Waters.

Ms. WATERS. Thank you very much, Mr. Chairman. I'm sorry I have not been able to be here during this entire hearing, but I have reviewed materials and testimony, and I am impressed with the quality of improvements that are demonstrated here in this report. And I think the goals are commendable and I believe that we all wish to speed up the ability to do the registration and to issue the patents. And we need to give the support. We need to support as much as we possibly can. And whatever technology needs to be employed in order to reduce backlog and to respond effectively is all that I'm interested in. I think that most of us share frustration with our daily lives about our inability to access information, to access assistance in various walks of life. And so in this area where it is so important to job creation and innovation I applaud your efforts and look forward to supporting in every way I can give it. Thank you.

Mr. GOODLATTE. I thank the gentlewoman. It is now my pleasure to recognize one of the new Members of the Committee and of the Congress, the gentleman from Pennsylvania, Mr. Marino.

Mr. MARINO. I thank the Chairman. Secretary, it is a pleasure to be talking with you today. Thank you for being here.

Mr. Secretary, how do you measure the performance? Let's switch gears a little bit. How do you measure the performance of your staff, of your individuals, specifically those reviewing patent requests, and are you able to increase their performance and their efficiencies and how?

Mr. KAPPOS. Okay, thank you very much, Representative Marino. That's a great question. So one of the things that's wonderful about the USPTO, and perhaps to a fault, is we measure everything. I have been shocked in the 18 months or so that I've been there. This agency measures everything. We literally measure every action that every employee does. They are all recorded on our computer

system, right? So each of our examiners as they pick up an application, as they read it, the time they are spending gets recorded. When they are talking to an applicant about an application, we call that an interview, it gets recorded. When they are responding to an applicant's amendment of a patent application, all of that gets recorded. So we have a tremendous amount of data that shows us literally day-by-day, week-by-week, we call them bi-weeks, 2-week groupings. All the way through the year we can do comparisons to a very minute level.

And what we are seeing in realtime, and these statistics are recounted in my written statement, is that even as we have given examiners more time for first evaluation of applications, because we've also given them incentives to engage with the applicant community, they actually are getting applications done in aggregate more quickly. So we've managed to take the time, the effort that it takes—we call them actions per disposal. An action is each time an examiner picks up and works with an application. We have managed to take actions per disposal all the way down from over 2.9 to about 2.4, which is miraculous in the sense that it is like liberating a quarter of the agency—it is like increasing the size of your agency by 25 percent simply by unleashing people and letting them be effective in their work. And I wish that Mr. Issa were here to hear more about this, because that's really the answer to the question. What are we doing other than hiring? We are actually investing in our employees' efficiency and enabling them to take the amount of time they spend on each application way, way down.

Mr. MARINO. Now would you agree with me, one of the reasons I believe that I was sent here was because the, my constituents and the American people are tired of the spending in government and the debt. Now with that aside, I come from a manufacturing background. I worked in manufacturing for 12 years on a production line before I went to college and law school. And I'm not comparing a manufacturing line with the cerebral work that has to be done on a patent, and I say that in all sincerity. But we had to maintain certain production flow, based on the standards, based on the profits that we wanted to be generated in the line, and if we couldn't maintain that we were replaced. Do you see any way to increase efficiencies, whether that's through further training or equipment or software, because we need to learn to do more in government with less, just like we do in industry and like we do in our houses?

Mr. KAPPOS. Right, so I sort of am from a similar background in the sense that I'm not a government guy, right? I was brought in from the private sector and I'm bringing in all of what I know from my 27 or so years in the private sector. I also came from a manufacturing environment and was an electrical engineer. So I get that at the end of the day you have got a product that you're producing. Our product, right, is the examination of patents and trademark applications. And you've got to try and come up with ways to measure it on an objective basis and you've got to think of it as a production line with inputs and byproduct and outputs. And we are doing exactly that.

So as part of the process we have torn apart our entire patent application processing pipeline. It is a giant pipeline that has got

literally hundreds and hundreds of steps, it is like a complex manufacturing process. I compare it to making a large computer, right, and it is very similar actually. We have torn apart the process, we are removing steps from the process. We are applying the discipline that you think of as 6 sigma or lean 6 sigma, if you're familiar with those terminologies from the manufacturing context, to try and succeed at injecting, manufacturing, production, discipline into the USPTO, right? And I believe that our statistics show that we are actually making some progress in that regard.

Mr. MARINO. How is my time, Chairman?

Mr. GOODLATTE. The time of the gentleman has expired.

Mr. MARINO. Thank you. Thank you, sir.

Mr. GOODLATTE. I now recognize the gentlewoman from California, Ms. Lofgren.

Ms. LOFGREN. Thank you very much. And first let me give you my apologies for missing part of this. We had the organizational meeting of the House Administration Committee and I had to go over for that. As you know, I have a very strong interest in the whole patent area. We have discussed in the past the necessary steps that might be taken.

I'm really glad that we have an IP Subcommittee again. I think it will help us focus on these issues, and hopefully to take steps on a bipartisan basis to support the Office and see improvements that I know all of us want made.

In terms of how to do that, I understand that while I was gone you did indicate your agreement that allowance rates is not necessarily the only measure. I mean it doesn't necessarily measure quality. And I think it's my opinion that bad patents are as big a problem as delayed patents. In fact, when you think about what happened when patents surged after State Street and some others, I mean it has just mucked up the whole system. And I'm wondering if you have in mind some—other than allowance or compliance rate metrics, which are really process oriented—do you have metrics in mind that we could look at that really measure quality?

Mr. KAPPOS. Yes, thank you, Representative Lofgren, that's another great question and we do. We just got done, we spent the entirety of last financial year engaging with our stakeholder community, including many great companies from the Silicon Valley area, and we asked them a set of questions about quality. We held roundtables, we put out Federal Register notification, we took dozens and dozens of comments, voluminous amount of information we took in. We distilled all of that together, and at the end of the last financial year we came out with an entirely new way to measure quality, combining objective measurements of quality along with subjective measurements of quality. We put that in place at the beginning of this financial year. We just finished baselining it at the end of the last quarter, right, and we're getting ready to now start reporting to the IP community, to our Nation's innovators for the first time in history of the USPTO a comprehensive set of quality measures. Those include, right, not only, as you said, final compliance rate and in process compliance rate, but also indications of the quality of the search that we are conducting, the quality of the First Office Action examination that we are conducting and, importantly, surveys of the applicant community of their views of the

quality of the work that we're doing and, importantly, surveys of our examiners of the quality of the work that we're doing.

So I believe that USPTO now has the world's most comprehensive approach for measuring quality. Is it perfectly qualitative or perfectly quantitative? No. But it can't be in the world of judgments.

Ms. LOFGREN. I wonder if you could send us over the information that you've just referred to along with your summary at the end of this session so that we could be clued into the progress there. You know, I know that you know Mark Lemley at Stanford. He has opined that given the amount of time, 16 to 17 hours per examination, in his judgment is impossible to improve quality. I don't know when the last time Lemley did the analysis and came up with that hourly amount of time. Is that still accurate? Have we—what's the status of that?

Mr. KAPPOS. That's a great question. Mark is, you know, a great mind in the IP field. And like probably everyone else in this room, I have read Mark's work for easily a decade.

Ms. LOFGREN. A long time.

Mr. KAPPOS. It was in part influenced by his criticism of the amount of time that we gave examiners, that one of the very first things I did, and now a year ago, when I arrived at the USPTO, was to give examiners more time. We went across the board and gave every examiner at least an additional hour on every application, and in many cases we are giving more time than that. So I heard the message loud and clear. And frankly I believe it was the very same month that we started giving examiners more time. I believe it was February of last year, that our then in process quality rates shot up a couple of percentage points the very same month. And I don't believe that's any accident. I think it is simple. You give people more time, and they will do better quality work.

Ms. LOFGREN. I will ask a final question if I may.

Mr. GOODLATTE. Last question.

Ms. LOFGREN. It has to do with the satellite offices, which I think is a good idea and has the potential to really be important. I understand the first office was in Detroit. And as you know, I think more than a quarter of all patents issued in the United States comes from Santa Clara County. So I'm wondering when we will look for your next satellite office.

Mr. KAPPOS. So thank you for that question. You know as a native Californian, there is nothing I would like better than to get to personally—

Ms. LOFGREN. It is 73 degrees in San Jose today.

Mr. KAPPOS [continuing]. Personally open a satellite office there. You know, we are very pleased to have started in Detroit. We looked at a whole number of criterion in establishing and in deciding on that office, and including great universities and they have those in northern California, and lots of other districts represented here. Lots of invention and inventors, they have those in lots of districts represented here. Of course we looked at cost of living and that was a place that Detroit really came out really, really well.

That being said, you could be assured that the Secretary of Commerce has made very clear to me that he wants us doing more experimenting with satellite offices. So we're already doing prelimi-

nary research on other possible candidates. We do intend to move forward with other candidates and we will probably try some different approaches because these are pilots and we want to learn from them. We are very committed to trying more than one pilot. I'm sure I will hear from several others in the room about their district.

Ms. LOFGREN. Thank you, Mr. Chairman, for letting me ask that last question.

Mr. GOODLATTE. I edited my request out of my opening remarks. But we'll now yield to the gentlewoman from Florida, Ms. Adams.

Ms. ADAMS. Thank you, Mr. Chair. And I have sat and listened to all the questions and the answers, and I just have a couple extra questions. I am concerned about the fact that the cost over the last 10 years as my colleague brought forward earlier, but the one thing I didn't hear you say, but you said an appropriate inventory level. But you didn't say what the appropriate inventory level would be. What would you consider an appropriate inventory level?

Mr. KAPPOS. Thank you, Representative Adams. Another great question. So the way I propose the discussion about manufacturing environment, the way I look at inventory, right, is that you have to have enough dockets on each examiner's plate, if you will, or enough cases with each examiner that each examiner has an appropriate workflow. We have got about 7,000 or so examiners, many different skill sets. We examine everything from nano particles to fishing lures and even, believe it or not, we have people wheel-related inventions still. So, you have a nonfungible workforce—you can't just move employees around infinitely. You have got an uneven workload coming in, different quantities of applications in different parts of the agency. What you've got to do, is you've got to match the workload, right, to the examiners, which requires continuously moving people around, because we don't control the workload.

Okay, so where that leads you is you have got to have an adequate number of dockets on each examiner's plate depending on the time that it takes them to examine—that question was asked already—and the time does vary. Fishing lures takes less time, nano technology takes more time. So if you add all that up and sort of go through the calculus from my view as a manufacturing person, at the end of the day we need somewhere in the neighborhood of 50 to 70 dockets, 50 to 70 cases sitting on each examiner's docket at any point in time. That's an appropriate level so that each examiner has good workflow—they've got some new cases to do, they've got some in process cases to do. They've got enough work that they are not running out of work, but they are also not overwhelmed with work. If you multiply that out it comes out to about 325,000 cases. That's an appropriate inventory level at any one period of time. It produces a nice steady work stream across all examiners, no one flushes their cue and runs out of work, no one is too overwhelmed. And that is the level we need to operate the agency. And oh, by the way, it is when we hit 325,000 that we also hit optimal pendency, which is 10 months to first office action and 20 months to final disposition or grant of a patent at the USPTO.

Ms. ADAMS. Thank you.

Mr. GOODLATTE. Well, thank you, Mr. Secretary. This has been a very thorough and very helpful hearing with you, and we do have another panel we are going to move to now. So we will thank you and excuse you. And I'm sure we may have some additional questions we want to submit to you in writing.

Mr. KAPPOS. Okay, thank you very much.

Mr. GOODLATTE. Thank you for coming today.

And, gentlemen, you may want to remain standing because we're going to ask each of you to be sworn in. If you would raise your right hand.

[Witnesses sworn.]

Mr. GOODLATTE. Thank you and please be seated, and welcome.

Our next witness is Douglas K. Norman, Vice President and General Counsel for Eli Lilly & Company. He earned his BS in microbiology from Indiana University, and his law degree from Indiana University Indianapolis. His practice includes many aspects of patent law, including procurement licensing and litigation. He's a member of the board of the Intellectual Property Owners Association, where he currently serves as President. He's also a member of INTERPAT, an association of research-backed pharmaceutical companies that work to improve intellectual property laws globally. Mr. Norman chairs the National Association of Manufacturers Subcommittee for Intellectual Property and has served in leadership positions for other IP organizations.

Rounding out the panel is Robert Shapiro, who is Chairman and Co-Founder of Sonecon LLC, a private firm that provides advice and analysis to senior executives and officials of U.S. and foreign businesses, governments and nonprofit organizations. He is an internationally known economist with expertise in a range of areas, including globalization, innovation, financial markets, taxation, and public finance. Before establishing Sonecon, Dr. Shapiro was Under Secretary of Commerce for Economic Affairs from 1997 to 2001. Prior to that appointment, he was Co-Founder and Vice President of the Progressive Policy Institute and the Progressive Foundation. He has advised Bill Clinton, Bob Kerrey, and President Obama on economic issues and served as a fellow of Harvard University, the Brookings Institution, and the National Bureau of Economic Research.

Each of your written statements will be entered into the record in its entirety. I ask that you summarize your testimony in 5 minutes or less. And to help you stay within that time there is a timing light on your table. When the light switches from green to yellow, you will have 1 minute to conclude your testimony. When the light turns red, it signals that the witness's 5 minutes have expired. And we will begin with you, Mr. Norman.

TESTIMONY OF DOUGLAS K. NORMAN, PRESIDENT, BOARD OF DIRECTORS, INTELLECTUAL PROPERTY OWNERS ASSOCIATION

Mr. NORMAN. Thank you, Mr. Chairman and Members of the Committee. I appreciate the opportunity to be here today to speak in behalf of the Intellectual Property Owners Association. IPO is a trade association representing companies and individuals in all in-

dustries and fields of technology who own or are interested in intellectual property rights.

Effective and affordable intellectual property rights are key to innovation and job creation. Thank you for taking the time to address such an important issue in the context of PTO's operations. We congratulate Mr. Kappos on bringing creativity and energy to the efforts to improve PTO's patent operations.

No one can make all of the needed improvements of course without adequate funding. Since the 1990's the PTO has collected approximately \$800 million in patent and trademark fees from our members and other PTO users that it has been unable to spend because of limitations in appropriations acts. The inability to gain access to all of its collected fees has taken a considerable toll on the agency.

We appreciated the bipartisan efforts of the Members of the House and Senate Judiciary Committees and the leaders of the appropriations Subcommittees last year to obtain supplemental appropriations for the PTO so that total appropriations would match the fees collected. Some success was achieved with the enactment of a \$129 million supplemental appropriation, but the PTO still collected about \$50 million in users fees by the end of the fiscal year that it could not spend.

We also appreciated the efforts last fall to obtain an exception for the PTO in continuing resolutions. The case for exceptions to the PTO in continuing resolutions and other appropriations legislation is simple; the PTO deserves a different treatment because it is funded entirely by patent and trademark fees. No general taxpayer funds are used.

The Members of this Subcommittee are well aware that March 4th, 2011 is the next deadline Congress faces for resolving fiscal year 2011 government funding issues, including whether or not to provide adequate funding for the PTO. IPO strongly supports setting appropriations at a level that would allow the PTO to spend all of its estimated fee collections, including a buffer in the legislation to allow the PTO to spend more than estimated fee collections if actual fee collections exceed the estimates and, finally, imposing 15 percent surcharge on major patent fees during the remainder of the 2011 provided the spending limit is raised to guarantee that the USPTO can spend the income generated by the surcharge.

We encourage the Judiciary Committee to work with the Appropriations Committees on these issues as they did last year. IPO also continues to strongly support permanent legislation to allow the PTO full access to patent and trademark fees collected every year. The PTO needs to make long range plans to enable it to hire examiners, to invest in information technology, and to make other infrastructure improvements.

Patent timeliness and quality in particular are relevant to job creation. The current average time to grant a patent is about twice as long as the goals of 18 to 20 months that had long been recommended by IPO and others. Early determination of legal rights in technologies is important for patent owners in many industries. Early determination is also very important to give notice to competitors in the patent owner's industry who may be considering investments in the same or similar technology.

Business people put high value on legal certainty. Delay in granting patents inevitably means legal uncertainty, which directly stymies investment. The only way to achieve maximum legal certainty at an early date for all patent rights is to hire enough examiners to examine every application reasonably promptly. This requires stable and increased funding for the PTO.

We would like to mention a few patent reform proposals that directly affect the PTO. We support legislation to establish a new post-grant review proceeding. A post-grant review proceeding of appropriate scope can serve as a useful check on the quality of patents after they are granted by the PTO.

We also support legislative proposals to expand the opportunities of third parties to submit prior art information to the PTO before patent grant, another quality measure. And for 20 years the IPO has supported the conversion of the U.S. patent system to a first inventor to file system. First inventor to file will increase legal certainty for patent rights; it will also simplify proceedings in the PTO and open the way to further simplification through international harmonization of patent law.

Thank you for the opportunity to appear here today, and I will be pleased to answer any questions or supply additional information for the record.

[The prepared statement of Mr. Norman follows:]



Statement of

DOUGLAS K. NORMAN

PRESIDENT

INTELLECTUAL PROPERTY OWNERS ASSOCIATION

Before the

HOUSE COMMITTEE ON THE JUDICIARY

**SUBCOMMITTEE ON INTELLECTUAL PROPERTY, COMPETITION, AND THE
INTERNET**

on

**“HOW AN IMPROVED U.S. PATENT AND TRADEMARK OFFICE CAN CREATE
JOBS”**

Tuesday, January 25, 2011
1:30p.m.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

Mr. Chairman and Members of the Committee:

My name is Douglas K. Norman. I appreciate the opportunity to be here today to speak on behalf of Intellectual Property Owners Association (IPO). I am the President of the association.

IPO is a trade association representing companies and individuals in all industries and fields of technology who own or are interested in intellectual property rights. IPO's membership includes more than 200 companies and over 11,000 individuals primarily involved through their companies or law firms. Our corporate members represent a broad spectrum of large and mid-sized companies in industries ranging from information technology to consumer products to pharmaceuticals and biotechnology. We also have small business and independent inventor members. In addition to our legislative interests, we comment frequently on U.S. Patent and Trademark Office (PTO) issues and file *amicus* briefs in cases of interest to our members. IPO is active in international intellectual property activities as well and often comments on activities and policies of the Chinese, European and Japanese patent offices.

IPO believes that a system of effective and affordable intellectual property rights is a key to innovation and job creation. We thank the Committee for taking the time to address such an important issue in the context of PTO operations, and appreciate the opportunity to discuss it with you today.

We believe patent rights granted by the PTO provide critically important incentives for inventors and businesses to invent, to invest in research and development, and to commercialize technology. The literature is filled with evidence that inventions are a major contributor to economic growth. Industries that are innovation-intensive have a much stronger record of creating manufacturing and service jobs than industries that are less innovative. Such jobs produce competitive products and services for the domestic and export markets. Each year, many of our corporate members spend millions on R&D – some spend hundreds of millions – some spend billions.

Trademarks registered by the PTO also contribute to job creation by protecting brand names that are used to identify and promote new and existing products and services. The trademark side of the PTO is operating very effectively, in our judgment, so we will direct our

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

comments today primarily to the PTO's patent operations, where there are more opportunities to make improvements to boost job creation.

At the outset we want to congratulate PTO Director David Kappos, who incidentally was Vice President of IPO until he was appointed to head the PTO in 2009. Mr. Kappos by all accounts has brought a high level of creativity and energy to the efforts to improve the PTO. Neither Mr. Kappos nor anyone else, however, can make the needed improvements without adequate funding to operate the agency.

PTO FUNDING

Since the 1990's the PTO has collected approximately \$800 million in patent and trademark fees from our members and other PTO users that it has been unable to spend because of limitations in congressional appropriations acts. The inability to gain access to all of its collected fees has taken a considerable toll on the agency. While fiscal year 2010 production by the PTO's patent examining units set a new record, the pendency times for patent applications in the office will remain at unacceptably high levels for years to come if the office is unable to hire more patent examiners and make other much-needed infrastructure investments.

We appreciate the bipartisan efforts of members of the House and Senate Judiciary Committees and the leaders of the Commerce, Justice, Science Appropriations Subcommittees last year to support supplemental appropriations for the PTO to make total appropriations equal to fee collections. Some success was achieved with the enactment of a \$129 million supplemental appropriation, but we understand that the PTO collected about \$50 million in user fees by the end of the fiscal year on September 30, 2010 that could not be spent. We also appreciate the efforts to obtain an exception (a so-called "anomaly") for the PTO last fall in the continuing resolution that funded the government temporarily at the fiscal year 2010 level, including a letter by Chairman Smith and Ranking Member Conyers. The case for an exception in the continuing resolution for the PTO was quite simple. The PTO deserves different treatment because it is funded entirely by patent and trademark fees. No general taxpayer funds are used.

In large part because of the Judiciary Committee's support, adequate PTO funding was provided for in the original House fiscal year 2011 appropriations bill. Unfortunately PTO funding was caught up in larger government funding issues.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

As the members of this subcommittee are well aware, March 4, 2011 is the next deadline Congress faces for resolving fiscal year 2011 government funding issues, including whether or not to provide adequate funding for the PTO. IPO urges Congress to include PTO-specific provisions in whatever government funding legislation is passed by March 4. IPO strongly supports:

- Raising the spending limit (i.e., the money “appropriated”) for 2011 to allow the PTO to spend all of its 2011 estimated fee collections,
- Including a “buffer” in the legislation to allow the PTO to spend \$100 to \$200 million more than estimated fee collections, if actual fee collections in 2011 exceed estimates, and
- Imposing a 15 percent surcharge on major patent fees during the remainder of 2011, provided the spending limit is raised to insure that the PTO can spend the extra income generated by the surcharge.

These three items were in the 2011 appropriations bills that were supported by the House and Senate Appropriations Committees, but were not passed by Congress. With regard to the 15 percent fee surcharge, patent fee levels traditionally have been a matter for the Judiciary Committee. IPO can support the 15 percent fee surcharge only if the PTO is guaranteed the ability to spend the extra income generated by the surcharge. Since that guarantee can be given only by raising the level of appropriations, as we understand it, the fee surcharge needs to be in an appropriations bill. We encourage the Judiciary Committees to work with the Appropriations Committees on the fee surcharge as they did last year.

The importance of obtaining adequate funding for the PTO for the rest of the fiscal year cannot be overemphasized. By March 4 the PTO will have had its 2011 funding restricted to a lower level than the level of fee collections for 5 months of the fiscal year. Originally the PTO was planning to hire about 1,000 patent examiners in fiscal year 2011. We doubt that much of the hiring plan can be salvaged if the PTO continues to be restricted to the 2010 spending level after March 4.

IPO also continues to strongly support permanent legislation to allow the PTO full access to patent and trademark fee collections every year. Just like any business, the PTO needs to

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

make long range plans to enable it to hire examiners, to invest in information technology, and make other infrastructure improvements. Long term planning is difficult when the PTO is subject to the same appropriations process that is used for agencies funded by general taxpayer revenues. So far, no proposals have met with the approval of the Appropriations Committees for permanent legislation, but IPO stands ready to work with the Judiciary and Appropriations Committee members to continue the search for an arrangement that will assure long term stable PTO funding.

PATENT QUALITY AND TIMELINESS

IPO fully endorses the broad mission-focused goals in the PTO's 2010-1015 Strategic Plan, which are to:

- Optimize Patent Quality and Timeliness
- Optimize Trademark Quality and Timeliness
- Provide Domestic and Global Leadership to Improve Intellectual Property Policy, Protection and Enforcement Worldwide

Patent timeliness and quality in particular are relevant to job creation in the U.S. and deserve comment.

Timeliness

As noted, the current average time to grant a patent is about twice as long as the goals of 18 to 20 months that have long been recommended by IPO and others. Delay in granting patents, or in deciding not to grant them, weakens the incentives that a healthy patent system provides for job creation. Early determination of the legal rights in technology is important for patent owners in many industries. Early determination of rights is also important to give notice to competitors in the patent owner's industry who may be considering investments in the same or similar technologies. Business people put a high value on "legal certainty." Delay in granting patents inevitably means legal uncertainty that directly stymies investment.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

We appreciate that the PTO has been experimenting with ways to accelerate certain classes of patent applications, such as those relating to green technology, at the request of the applicant, or to make accelerated examination available on payment of an extra fee that would support the cost of hiring extra examiners. Programs have been proposed to give applicants control over the timing of examination of their applications. We believe, however, that the only way to provide legal certainty is to examine all applications within a reasonable time.

IPO has opposed systems for deferred examination of patent applications that have been used in some countries to permit applicants to delay examination, typically from 3 to 7 years after filing. Deferred examination causes legal uncertainty and experience has shown that countries with deferred examination still have backlogs of unexamined applications.

Some recent PTO proposals or programs would increase legal uncertainty. IPO commented unfavorably on the proposal for a “three track” examination system, in part because of legal uncertainty. IPO also has concerns about the “missing parts” pilot program, under which an applicant can file a provisional application, as permitted by the statute, followed by a regular application, and seek to delay completion of the regular application for up to another year. This program permits the applicant to delay submitting a full set of claims until after the patent application is published, 18 months after the first filing date. The public’s inability to learn of the claims that are being sought at the time of publication causes a lack of transparency and contributes to legal uncertainty.

Another program proposed recently for singling out certain applications for special treatment would provide transferrable vouchers for accelerated reexamination of patents for a patent owner providing access to “humanitarian technologies.” One of several IPO concerns with this idea was that it might accelerate some reexaminations of patents at the expense of other parties seeking reexamination. The statute calls for handling all reexaminations with “special dispatch.” In addition, IPO does not want to see the creation of artificial markets where vouchers granting procedural rights are traded amongst patent applicants or owners.

In the final analysis, it seems to us that the only way to achieve optimal legal certainty at an early date for patent rights is to hire enough patent examiners to examine every application reasonably promptly. This requires stable and increased funding for the PTO.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

Quality

“Quality” of patents granted by the PTO is the other key to maximizing incentives for job creation. A patent owner needs confidence that patents will be upheld in court if challenged, before investing in R&D or new products or services where the competitive edge provided by patent rights is important to making the investment. If the patent owner does not have a high degree of confidence that it can rely on the patent, incentives provided by the patent system are diminished. Quality is much more difficult to define and measure than timeliness, but quality nonetheless must be given high priority both by the PTO and applicants who are seeking patents.

On December 27, 2010, IPO in cooperation with three other associations – the American Intellectual Property Law Association, BusinessEurope, and the Japan Intellectual Property Association – submitted recommendations on patent quality to the PTO, the European Patent Office, and the Japan Patent Office. Our letter defined a quality patent as a patent that satisfies all of the legal patentability requirements. We provided a number of nuts and bolts suggestions (1) for applicants preparing a quality patent application, (2) for patent offices and courts, and (3) for members of the public submitting information to patent offices and assisting in training patent examiners.

We do not have adequate information to characterize the current level of quality of patents being granted by the PTO except to say most IPO members believe quality can be improved. Quality improvement has been an objective of patent reform legislation considered in the last three Congresses. The PTO recently has developed new quality metrics. One new PTO program that we endorse as likely to improve both quality and productivity is hiring of examiners with previous industry or law firm experience. Traditionally the PTO had hired mainly new engineering graduates. We believe examiners with previous relevant work experience are likely to produce quality work at the PTO more quickly and are more likely to stay with the PTO. Retention of examiners is essential for quality and production.

In December, legislation was signed into law that opened the way for the PTO to greatly expand its telework program by eliminating the requirement for examiners and other employees residing more than 50 miles from the PTO to go to the PTO offices twice every two weeks. The enactment of this legislation gives the PTO the possibility of having a “nationwide workforce.”

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

In January the PTO announced plans to open its first satellite office in Detroit, which initially is expected to employ about 100 examiners. Additional details of the programs are still to come.

We have no objection in principle to telework and satellite offices, but we recommend that the Subcommittee monitor these programs closely. It is essential that patent examiners be available for interviews with attorneys representing patent applicants. It has been shown that interviews shorten the pendency time of patent applications. Interviews probably improve quality as well. The new programs also should be monitored to assure adequate supervision and training of examiners working at home or in satellite offices. The relevance of supervision and training to patent quality requires no explanation.

PTO-RELATED PATENT REFORM LEGISLATIVE ISSUES

Patent reform legislation as a whole is outside the scope of this hearing, but we would like to take the opportunity to endorse a few patent reform proposals from the last Congress that directly affect the PTO. IPO supports patent reform legislation that will improve patent quality, allow early determination of rights, encourage international harmonization of laws, and reduce patent litigation.

A central feature of the patent reform bills that we support in principle is a new post-grant review proceeding. A post-grant review proceeding of appropriate scope can serve as a useful check on the quality of patents after they are granted by the PTO. We also support the legislative proposals to expand the opportunities of third parties to submit prior art information to the PTO before patent grant, another quality measure.

We recommend further analysis of the staffing requirements for the PTO to implement post-grant review before final passage of post-grant review legislation. Given the severe staff shortage, it may be advisable to implement post-grant review gradually. A related matter that has not been explored to date, to our knowledge, is the possible need to add more judges to the U.S. Court of Appeals for the Federal Circuit to handle appeals from post-grant review proceedings. Patent reform bills probably do not need to add more judges to the court, because the effect on the court would not be felt for years, but long range planning is recommended to prevent future problems.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

For 20 years IPO has supported the conversion of the U.S. patent system to a first-inventor-to-file system. This is another central feature of patent reform bills. First-inventor-to-file will increase legal certainty for patent rights. It will also simplify proceedings in the PTO and open the way to further simplification through international harmonization of patent law.

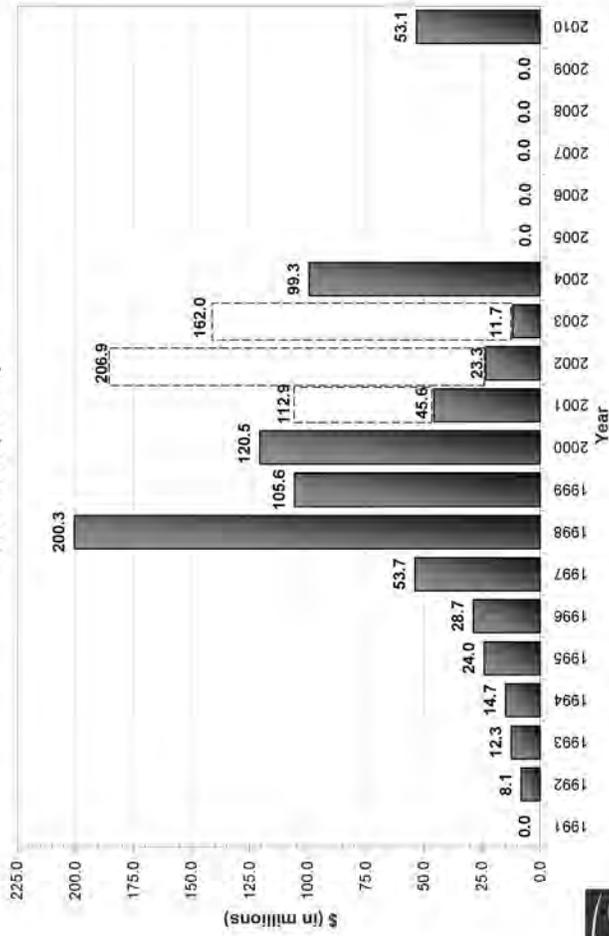
A final provision of patent reform directly affecting PTO operation is clarification of the inequitable conduct doctrine. IPO supports appropriate legislation to address the problems caused for the PTO and patent applicants and owners by the current judicially-created doctrine. There has been a huge increase in the number of court cases in which inequitable conduct has been pleaded. In order to minimize the opportunity for allegations of inequitable conduct, patent practitioners now regularly disclose to the PTO anything that could be alleged to be material, regardless of the relevance. Practitioners are also reluctant to make statements about cited references, which may later be characterized in litigation as material representations. The result of this "cite everything, say nothing" practice forced upon applicants by the current inequitable conduct law is that examiners are frequently overwhelmed with irrelevant references. The productivity of examiners declines, and the whole patenting process slows down. We note that the Federal Circuit is currently reconsidering the inequitable conduct doctrine *en banc* in *Therasense, Inc. v. Becton, Dickinson & Co.*

* * *

Thank you for the opportunity to appear here today. I will be pleased to answer any questions or supply additional information for the record.

APPENDIX

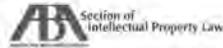
**User Fees Withheld from the U.S. Patent and Trademark Office (USPTO)
1991 - 2010 (estimate)**



Sources: USPTO & OMB
Planned amounts of fee withholdings from 2001 to 2003, as projected in the PTO's annual budget requests to Congress, are shown by the dotted lines. (Rev. 10/2010)



INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) -- APPENDIX 2

**AIPLA**

July 14, 2010

The Honorable Gary Locke
Secretary
Department of Commerce
Washington, D.C. 20230

Dear Mr. Secretary:

We are writing to express views shared by our three organizations concerning resources available to the U.S. Patent and Trademark Office in the coming months and years. In this regard we would like to discuss two specific issues relating to PTO funding. One is the OMB June 8 Memorandum on Fiscal Year 2012 Budget Guidance. The other is the unavailability to the PTO of an estimated \$200,000,000 of user fees actually collected in the current fiscal year.

For almost 20 years, the PTO has been fully funded by user fees. The fact that all funding for the Office is provided by the Office's customers is reason enough to not consider the PTO for inclusion in the initiative to reduce discretionary spending by 5% in each Department or Agency. However, an even more important reason is the mission of the PTO.

Our nation's patent system is a critical component of the engine that drives the U.S. economy and contributes greatly to United States world leadership in innovation and technological advancement. However, the efficiency and effectiveness of that system is threatened by a substantial and growing shortfall in funding and resources.

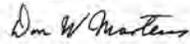
The Office has over 1.2 million pending patent applications, three-quarters of a million of which have not received a first office action. Average pendency from application to final action is 35 months. In some critical technologies, it is substantially longer. For example, in Workgroup 2190 that is responsible for patents relating to software development, average pendency to first office action is 46.4 months, and total pendency is 55.5 months. In the steps that the Department might take to meet the objective of a 5% reduction in spending, OMB Director Orszag's June 8 Memorandum lists first the elimination of low-priority programs that have the lowest impact on the mission of the Department. We strongly believe that the PTO cannot be considered to be a low priority program, and should not be considered for a reduction in funding to meet the OMB objective.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) -- APPENDIX 2

-2-

Secondly, and for the same reasons, we strongly support the Administration's July 12th request to Congress for a supplemental appropriation to make available to the Office the fees collected which are in excess of the current 2010 annual appropriation. (http://www.whitehouse.gov/omb/assets/budget_amendments/amendment_07_12_10.pdf). We agree with President Obama that these additional funds are vital to "support efforts to reduce backlogs in processing patent applications - by spurring innovation and reforming U.S. Patent and Trademark Office operations to make them more effective." Our patent system is suffering from the lack of these funds, and they should be made available to the Office to avoid further damage. We urge you to continue with these efforts and stand ready to help encourage Congress to enact the supplemental quickly.

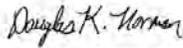
Sincerely,



Don W. Martens, Chair
ABA Section of Intellectual Property Law

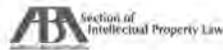


Alan J. Kasper, President
American Intellectual Property Law Association



Douglas K. Norman, President
Intellectual Property Owners Association

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) -- APPENDIX 3



September 29, 2010

The Honorable Barbara Mikulski
Chairwoman
Subcommittee on Commerce, Justice,
Science and Related Agencies
Committee on Appropriations
142 Dirksen Senate Office Building
Washington, D.C. 20510-6025

The Honorable Alan B. Mollohan
Chairman
Subcommittee on Commerce, Justice,
State and Related Agencies
Committee on Appropriations
The Capitol Room H-309
Washington, D.C. 20515-6015

The Honorable Richard Shelby
Ranking Member
Subcommittee on Commerce, Justice,
Science and Related Agencies
Committee on Appropriations
125 Hart Senate Office Building
Washington, D.C. 20510-6025

The Honorable Frank R. Wolf
Ranking Member
Subcommittee on Commerce, Justice,
State and Related Agencies
Committee on Appropriations
Longworth HOB Room 1001
Washington, D.C. 20515-6015

RE: SUPPORT FOR FUNDING THE USPTO

Dear Chairwoman Mikulski, Ranking Member Shelby,
Chairman Mollohan and Ranking Member Wolf

We are writing to express views shared by our three organizations concerning resources available to the U.S. Patent and Trademark Office. In this regard, we understand and note with disappointment that the Continuing Resolution does not include a provision to make available to the USPTO an estimated \$70 million of user fees actually collected in the current fiscal year.

During last week's Patent Public Advisory Committee, the USPTO reported that collections for this fiscal year will exceed their current appropriations by approximately \$70 million and those funds would not be available to the USPTO without being addressed in the Continuing Resolution. The USPTO has been reporting for months the possibility that collections would likely exceed their projected appropriations. The unavailability of funds paid as fees to the USPTO is the paramount issue to our members, and we therefore strongly support finding some mechanism to make these funds available to the PTO by whatever means you might find appropriate.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) – APPENDIX 3

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Our nation's patent system is a critical component of the engine that drives the U.S. economy and job creation, and contributes greatly to United States world leadership in innovation and technological advancement. However, the efficiency and effectiveness of the patent system is threatened by a substantial and growing shortfall in funding and resources for the USPTO.

While we greatly appreciate your efforts this year in providing the USPTO access to additional funds through the Supplemental Appropriation, we urge you to work with the Administration to make available to the USPTO all of the fees collected. We are committed to a strong, efficient, and predictable patent system, and we pledge to work with you to find a constructive approach to address this problem. Our patent system is suffering from the lack of these funds, and they should be made available to the USPTO to avoid further damage.

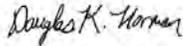
Sincerely,



Marylee Jenkins, Chair
ABA Section of Intellectual Property Law



Alan J. Kasper, President
American Intellectual Property Law Association



Douglas K. Norman, President
Intellectual Property Owners Association

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) – APPENDIX 4



Intellectual Property Owners Association

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Douglas K. Mazon
Philly.com Co.
- Vice President
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- Daniel J. Smyth
Dunham Corp.
- Brian K. Starnock
CompassPoint
- Henry Stone
Axi Systems
- James A. Tresselt
RF America, Inc.
- Daniel von Vossan-Platz
Cable One Co.
- Ray Walker
Plyco, Inc.
- Michael Walker
Dell Inc.
- B.J. Walker
Muhlenberg Products Co.
- Scott West
Ampro, Inc.
- Paul D. Weger
Johnson & Johnson
- Executive Director
Mark C. Wenzel

November 24, 2010

Chairman Alan Mollohan
Committee on Appropriations
Subcommittee on Commerce,
Justice, Science, and Related Agencies
Room H-310, The Capitol
Washington DC 20515

Ranking Member Frank Wolf
Committee on Appropriations
Subcommittee on Commerce,
Justice, Science, and Related Agencies
Room H-310, The Capitol
Washington, DC 20515

RE: Full 2011 Funding for the U.S. Patent and Trademark Office – An Urgent Jobs Issue

Dear Chairman Mollohan and Ranking Member Wolf:

Intellectual Property Owners Association (IPO) urges prompt passage of the House fiscal year 2011 Commerce-Justice-Science appropriations bill or an amendment to the continuing resolution to allow the U.S. Patent and Trademark Office (USPTO) to spend all user fees it collects from our members and other members of the public. The continuing resolution in effect since October 1 limits USPTO spending to the 2010 appropriations rate, *about \$1.5 million per day less than the President's 2011 budget request*. We appreciate your past support for funding the USPTO at a level equal to fee collection estimates and ask you to take immediate action to enable the USPTO to spend all 2011 fee collections. In our judgment, this is critically important to the health of the U.S. economy.

The membership of IPO includes more than 250 companies and 11,000 individuals involved in IPO through their companies or law firms or as individual members. We constitute approximately one-third of the domestic users of the USPTO. Our members span the information technology, pharmaceutical, biotech and traditional manufacturing industries. Members all agree that the United States needs an effective USPTO to keep our nation competitive, encourage innovation and create new jobs.

We support the 2011 appropriations language for the USPTO that has been approved by your Committee. The language will:

- Impose a 15 percent surcharge on major patent user fees during 2011, which we support provided the fee collections will be available to the agency. (Including the surcharge in an appropriations bill or continuing resolution with an appropriate spending authorization makes the surcharge funds available)
- Increase appropriations significantly - to \$2.322 billion - to allow the USPTO to hire badly-needed patent examiners to attack the backlog of unexamined patent applications and to make other improvements in USPTO operations.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) – APPENDIX 4

- Provide a \$100 million "buffer" in addition to the base \$2.322 billion to allow spending of fees received in excess of estimated collections.

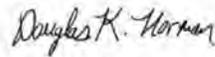
As we understand it, the USPTO is constrained to spending at the rate of \$2.016 billion per year under the existing continuing resolution. The 15 percent surcharge would likely generate an additional \$262 million in fee collections if in effect for the entire fiscal year. (With two months of the year already gone, actual additional collections will be less.) USPTO officials gave an estimate to the Trademark Public Advisory Committee yesterday that in 2011 *the USPTO will likely collect about \$400 million in excess of the existing spending limit*, taking into account the surcharge and a larger number of application fees and other fees being paid to the agency. Four hundred million dollars can be the difference between success and failure for the agency in stimulating the economy and creating American jobs. As you know, no general taxpayer dollars are at stake. The USPTO is 100 percent funded by user fees.

As stated, we support your Committee's bill. In addition, we urge updating the appropriations in the bill to match the latest collection estimates and increasing the buffer to \$200 million so that if the actual collections exceed the estimates, the agency will still be able to use all of the fees it collects. We believe a \$200 million buffer is reasonable, given that the USPTO's fee estimates for 2010 turned out to be nearly \$200 million understated.

The funding problem is urgent and needs to be addressed this calendar year. If Congress opts to pass a new continuing resolution extending into the new calendar year instead of passing the 2011 Commerce-Justice-Science appropriations bill, it is imperative to include an amendment or "anomaly" for the USPTO. Precedent exists for an exception for the USPTO in a continuing resolution. In Public Law 110-5, covering fiscal year 2007, the USPTO was given authority to spend at the rate of estimated collections. The same should be done now.

Again, we appreciate and support the Committee's hard work to ensure that the USPTO can access its user fees so it can best support American innovation and job creation. We stand ready to assist the Committee in any way we can.

Sincerely,



Douglas K. Norman
President

cc: Members of Appropriations and Judiciary Committees

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) – APPENDIX 5



Hon. Benoit Battistelli
President
European Patent Office

Hon. Yoshiyuki Iwai
Commissioner
Japan Patent Office

Hon. David J. Kappos
Director
United States Patent and Trademark Office

28 December 2010

Dear President Battistelli, Commissioner Iwai, and Director Kappos:

RE: Industry Trilateral Recommendations on Patent Quality

The Industry Trilateral includes the American Intellectual Property Law Association (AIPLA), BUSINESSEUROPE, Intellectual Property Owners Association (IPO), and the Japan Intellectual Property Association (JIPA). Since its founding in 2004, the Industry Trilateral has held a great interest in and has supported the implementation of policies and procedures that can produce high quality patents at reasonable costs and with reasonable pendency.

The Industry Trilateral recognizes that applicants have an important role to play in improving the efficiency and cost-effectiveness of the overall patenting process, including timeliness and legal certainty. As the incoming patent application is the starting point of the process within a patent office, it is important that the application is presented in such a way as to facilitate searching and examination by the office.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) — APPENDIX 5

Patent offices, courts and third parties also have important roles in improving efficiency and cost effectiveness, of course. We should consider the issue of improvement of patent quality from a broad perspective.

With this aim in mind, the Industry Trilateral has drafted the appended set of recommendations. We would welcome any comments the Office Trilateral or the individual offices may have on these recommendations.

We strongly believe that improvements to the patenting process in all jurisdictions will result not only from separate efforts by offices and by applicants, but even more from cooperation as close as possible between offices and applicants. Efforts on each side must be seen over time to make a difference on the other side, which requires a regular exchange of experience and feedback.

For its part, the Industry Trilateral is determined to continue its efforts in this direction and will welcome the opportunity to discuss them with the Office Trilateral.

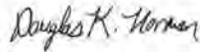
Yours sincerely,



Philippe de Buck
BUSINESSEUROPE Director General



Fumihiko Moriya
President of JIPA



Douglas K. Norman
President of IPO



David W. Hill
President of AIPLA

Appendix attached

28 December 2010

APPENDIX:**INDUSTRY TRILATERAL RECOMMENDATIONS
ON PATENT QUALITY****INTRODUCTION**Definition of Quality

A “quality patent” or “quality patent right,” for purposes of this paper, is a patent that satisfies all of the legal patentability requirements. Patentability requirements include, for example, novelty, inventive step (non-obviousness), and description requirements. Claims of a quality patent will be found valid if subsequently reviewed by a patent office or a court. Patent quality or validity often is determined separately for each claim of a patent.

When a patent is granted with one or more claims that fail to satisfy one or more of the patentability requirements, such claims may be found to be invalid, and the patent can be said to have low quality. Where this paper recommends ways to “improve” quality, it is recommending ways to increase the likelihood that a patent’s claims will be valid, and to increase the number of patents wherein all of the claims will be valid.

We should consider the issue of improving patent quality from a broad substantive perspective. The number of low quality patents will be reduced if applicants improve the quality of their patent applications and file patent applications that fully satisfy the applicable patentability requirements. The number of low quality patents also will be reduced if patent office examiners find all of the prior art relevant to the claimed inventions within a reasonable time and expense, and if patent offices and courts keep judgments at a uniform level with regard to issues such as inventive step (non-obviousness), clarity of claiming and adequacy of description.

Patent applicants invest substantial amounts of money during the process from filing a patent application through obtaining a patent and enforcing it. From the applicants’ standpoint, their investment will be wasted if their patent applications are rejected by patent offices because the applicants prepared their applications relying on non-uniform levels of examination. Their investment also will be wasted if their patent rights, after grant, are invalidated for reasons relating to novelty or inventive step because of prior art found only after patent grant. In this respect, it is important for patent rights to have high legal stability.

With all of these points in mind, the Industry Trilateral views the concept of “patent quality” or “quality patent right” as including the quality of the patent application, the quality of the search and the quality of the examination. The quality of a patent right also

includes the concepts of predictability and legal stability of the patent right. Patent quality must be distinguished from the monetary value of a patent.

We also should consider the issue of improved patent quality from a broad procedural perspective. Practices, procedures and policies that result in inefficiencies, inaccuracy and piecemeal prosecution should be avoided. Further, efforts should consistently be made to enhance the efficiency and accuracy of the prosecution process, through cooperative efforts among offices and with the input of users and other stakeholders.

Quality, both substantive and procedural, can be judged at various stages during the prosecution of a patent application and after the patent is granted. The measures of quality will vary over time, and those measures should be uniform, clearly defined and, to the greatest extent possible, accepted by offices and users worldwide.

Appropriate Metrics

The metrics for measurement of appropriate indicia of patent quality, as well as their collection, reporting, review and analysis, are fundamental to evaluating the success of patent systems in issuing quality patents. Well-defined metrics can provide an essential resource for gauging quality at several stages in the patenting process. Moreover, through appropriate feedback mechanisms, they can provide a basis for implementing changes to processes, procedures, regulations and practices, and even for redefining the relevant metrics as experience is gained. Preferably, the results reported by an office would be verifiable from the outside so that conclusions can be more readily understood.

Shared Responsibility

The Industry Trilateral accepts the concept of “shared responsibility” as part of the discussion of patent quality. From the time an invention is created and it moves into the patent granting process until it reaches the enforcement process, it passes through several stages. The inventor/applicant and their patent attorney and many other parties are involved, including patent offices, courts, and third parties.

The Industry Trilateral has studied the actions that each party should take at each stage in the course from the creation of an invention through the patent grant process and through the exploitation process. The Industry Trilateral believes that all parties must do what they need to do to improve patent quality.

**I. RECOMMENDATIONS TO APPLICANTS FOR
PREPARING A QUALITY PATENT APPLICATION**

- Before drafting a patent application, the applicant and the applicant's patent attorney should analyze the prior art that it has at its disposal, either from its own knowledge or through a search the applicant has conducted or requested. The applicant should use this analysis to decide whether the applicant has a patentable invention, thus minimizing the chances of wasting time and money on patenting.
- Applicants should draft patent applications as far as possible in a standard format, preferably that approved by the PCT and additional common format requirements agreed on by patent offices, such as the common application format (CAF) that has been adopted by the Trilateral Offices. This will make it easier for the examiner to process the application.
- Applicants should avoid being prolix, repetitive or inconsistent in the language used to draft a patent specification. Not only will this avoid unnecessary cost, but it will also avoid adversely affecting the scope or usefulness of the protection that may be granted. Applicants should draft the specification and claims in light of the known prior art. This will help frame the scope of the invention, and allow a faster examination at the patent office.
- An application should state clearly what the invention is and what makes it a patentable invention over the prior art cited in the application. For prior art only available on the Internet, the details of source and date should be clearly given. The application should use consistent language throughout the specification to identify particular items. "Inventing" new words should be avoided as this will only serve to confuse the examiner and anyone reading the claim. Each numbered feature in each drawing should be clearly explained and, if necessary, defined. Reference numbers can be used in claims to point out where elements are explained in the specification and drawings. Specificity and clarity avoid unnecessary cost; in contrast, poor drafting may adversely affect the scope or usefulness of the protection that will be granted.
- The specification should set out clearly the features of the invention with enough specificity to provide an explicit basis for any claims that are drafted. In addition, the ordinary practitioner in the technical field to which the application relates needs to be able to understand and reproduce, without undue effort, the full scope of the invention claimed, so in general more explanation is needed for broader claims. The applicant should work on the assumption that the applicant will not be able to supplement the information after filing. The addition of subject matter will lead to revocation or invalidation of the patent in some jurisdictions.
- Wherever possible, the applicant should provide data in the specification showing how the invention works. If it is available, data should be provided across the whole scope of the invention (especially with respect to preferred features).

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) – APPENDIX 5

However, extra exemplification should not be provided simply for effect. Disclosure of the best features of the invention should not be avoided by supplying sub-optimal exemplification. In some jurisdictions this can prove fatal to the patent.

- The applicant should ensure that any data provided are sufficiently complete to be intelligible to and repeatable by an ordinary practitioner in the technical field to which the invention relates. The emphasis should be on drafting the specification to comply with the PCT requirement (*see* Article 5) that the invention can be carried out by a person skilled in the art. The amount and kinds of data to be included will depend on the technology involved.
- The application should be drafted with clear and unambiguous independent claims. Vague and ambiguous language in the claims should be avoided. Words should not be used in a claim if they are not found in the specification, as this could create uncertainty in the basis for the examination and ultimately adversely affect the scope of protection. To reduce excess claim fees, confining sub-claims to those features that are inventive over the subject matter of the independent claims should be considered, while using multiple dependencies only with the greatest care. Multiple dependent claims should be used judiciously, to give flexibility "within" the same invention to claim more embodiments, but claiming (and consequently, asking the patent office to search) more than one "invention" should be avoided. If the application includes more than one independent claim, it should be recognized that the patent application may have to be divided up later unless the patent office can be convinced that the independent claims relate to a single inventive concept. Divisional applications can be a major source of unplanned extra cost, but may be necessary in some instances.
- Applications should be checked thoroughly before filing for typographical errors, missing text and incorrectly labeled drawings. These may be difficult to correct later unless what the applicant intended was completely clear.
- During prosecution, the applicant should endeavor to address all objections and rejections raised by the examiner.
- Patent applications are complex legal documents. The services of a qualified and experienced patent attorney are essential. In the long term, use of the best-qualified personnel will reduce costs for the applicant and make the job of patent offices easier.

**II. RECOMMENDATIONS TO PATENT OFFICES AND COURTS
FOR IMPROVING PATENT QUALITY**

- Patent offices should insure an independent search and examination. They should not depend solely on the applicant's search or analysis.
- Patent offices should share results with other patent offices in real time and to the extent possible make use of the work done by other patent offices to avoid duplication of effort.
- Patent offices must provide incentives for quality work by examiners. Examiner incentives should be shifted toward quality so that goals are not base purely on productivity targets. However, the parallel goal of compact, rather than piecemeal, prosecution also should be emphasized. Productivity incentives should not encourage examiners to force applicants to file successive applications on the same invention.
- New examiners should be highly qualified individuals who can reasonably be expected to stay as examiners for a significant period of time. Patent offices should recruit more examiners with prior experience in industry as attorneys or agents and as scientists or engineers, especially those with some IP training.
- Examiners must have training in new technologies and in developments in court decisions. The amount of training and guidance given to new examiners should be increased over current levels.
- Patent offices should adopt examining procedures and tools that make it easier to improve the end result.
 - Assign related applications to the same examiner.
 - Permit face-to-face interviews with examiners including interviews before the first action.
 - Search for equivalent patent families of the application under examination, and review search reports in such patent family members.
 - Implement a checklist to ensure that examiners have thoroughly reviewed the specification.
 - Provide examiners with tools available to assist in examination, such as the Lexis Patent Optimizer, which allows the examiner to identify terms in claims not referenced in the specification, terms used inconsistently from one claim to the next, and terms in the specification not identified in the drawings.

INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO) – APPENDIX 5

- Consider new search engines and more patent subject matter reclassification projects.
- Patent offices should provide rejections or allowances that are well reasoned, thorough and clear. The written record of granted patents should make clear what took place during the course of the prosecution, including during interviews.
- Patent offices should strive for inclusion of the Patent Law Treaty requirements in their internal practices to harmonize and streamline formal procedures, pending a formal ratification of that Treaty in their country/region.
- Patent offices should develop and rely on meaningful measures of the quality of work of individual examiners that can improve the end result. Offices should share such measures with other offices and the public. They can review examination of rejected patent claims that are later ruled patentable on appeal within the office, and review examination of patent claims that are later invalidated by the courts. The percentage of patent applications allowed as patents ordinarily is not a good indicator of quality. Rejecting patentable claims should be viewed as an indication of poor examiner performance. The Industry Trilateral is interested in helping patent offices develop meaningful measures of quality and examiner performance.
- Patent offices should view applicants as part of the solution, not the problem. They should maintain and improve relationships with the user community.
- Courts should render clear and explicit decisions in patent cases. Decisions on validity should be precise and provide guidance to applicants and the offices that is clear and consistent. Litigation should be controlled, particularly in terms of the time to trial and the cost of the proceedings.
- Courts should seek to stabilize doctrines of patent invalidity and reviews of patent office decisions.

**III. RECOMMENDATIONS FOR ACTIONS BY THE PUBLIC
TO IMPROVE PATENT QUALITY**

- Companies should cooperate with the patent offices on training programs for examiners in new or complex technologies, such as technology explanations, demonstrations of new products. Training courses should be taught by industry scientists and engineers.
- Members of the public should submit prior art to patent offices during time periods when such submissions are permitted, before or after patent grant.

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- Companies should consider donating databases of non-patent prior art publications, such as scientific and technical journal articles, in fields in which companies have built collections of prior art publications.
- Patent offices should adopt programs to improve the examination procedure to widely collect prior art information from the public, such as “peer-to-patent” programs offered by certain patent offices, which permit industry and members of the public to have input on the patentability of claims in pending applications when the applicant has volunteered to publish its application for peer review

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Mr. GOODLATTE. Thank you. Mr. Shapiro, welcome.

**TESTIMONY OF ROBERT J. SHAPIRO, CHAIRMAN AND
CO-FOUNDER, SONECON LLC**

Mr. SHAPIRO. Thank you. I'm honored to be here today to discuss the role of the PTO in helping create American jobs. I approach this as an economist with some preparation coming from serving as Under Secretary of Commerce, but also from running an economic advisory firm that advises companies dependent on the intellectual property protected by the patents issued by the PTO.

The economic case here really boils down to three propositions. First, growth productivity and jobs all depend more than any other single factor on our economy's capacity to innovate. Two, innovation depends on the creation of new intellectual property and, three, the creation of new intellectual property depends on the soundness and integrity of the patent regime and on its enforcement.

For a half century economists have documented the pivotal role that intellectual property plays in economic growth. We've long known that the development and adoption of economic innovations explains 30 to 40 percent of the gains in productivity and growth achieved by the United States over the last century. That is three times the impact, for example, of increases in capital investment. We also know that since the 1990's for the first time anywhere U.S. businesses have invested more each year in idea-related intangibles—that's R&D and patents and copyrights and databases and software—than they have in all plant, equipment, and other tangible forms of investment. We further know that more than four-fifths of recent gains in productivity can be traced to the development and application of new ideas, especially those related to information technologies.

The reason that the United States is the world's dominant producer of economic powerful innovations is that innovations thrive in places where commitments to research and development are strong, the political and economic environments are stable, barriers to starting new businesses are relatively low and, perhaps most important, where intellectual property rights are sound, respected and enforced.

To create an innovation a business has to take investment capital away from uses known to produce substantial returns and use it instead in much riskier ways that promise unknown returns at some unknown time. The only incentive to do so comes from the monopoly privilege granted by patents and copyrights, the only monopoly rights legally provided for in our market-based system, and the integrity of those patents and copyrights depends on the quality and the due speed with which the PTO adjudicates the claims of innovators that their new ideas meet the criteria for these monopoly rights.

Innovations and intellectual property embodied in them help create jobs because they play such a critical role in the competitiveness of American companies. In fact, the capacity to develop new intellectual property and innovations has become the primary grounds for the economic competition between American firms and firms in other advanced countries here and across the global economy.

Patent rights drive innovation in other ways as well. Many innovations produce a kind of cascade, where their introduction and adoption are followed by additional innovations which build on or depend on the initial breakthrough and may have even greater impact on productivity and competitiveness.

The most common type of cascading in fact involves incremental improvements or enhancements of an existing innovation, which extends its usefulness to more industries or new activities. These cascades depend on the patent regime. We grant time limited mo-

nopoly patent rights to innovations but in exchange the patent holder must reveal the inner workings of the innovation. They become public knowledge, and these rules actively encourage subsequent innovators to build on an initial breakthrough.

Advanced economies which promote the conditions for innovation have a competitive advantage then, and promoting those conditions should be a central priority for national growth and employment policy.

The U.S. is home to a disproportionate share of the world's companies capable of developing and adopting the powerful innovations which drive economic progress. That reflects our strong intellectual property protections.

The sustained development and application of new intellectual property also relies on a few other social and political conditions. An entrepreneurial culture and low barriers to the formation of new businesses play significant roles because young and new businesses are major sources of innovation and more likely than established firms to quickly adopt innovations from others.

The importance of a strong competitive environment also cannot be underestimated. In addition, strong government support for basic R&D is critical since the incentives for private firms to undertake basic R&D are notoriously weak.

Finally, and I'll close with this, sustained public investments in education and training are vital to ensure a sufficient supply of workers who can operate new technologies and operate effectively in workplaces dense with these innovations.

Thank you.

[The prepared statement of Mr. Shapiro follows:]

How the Patent and Trademark Office Helps Can Help to Create Jobs

Statement of Robert J. Shapiro

**Chairman, Sonecon, LLC;
Senior Fellow of the Georgetown University McDonough School of Business; and
Former Under Secretary of Commerce for Economic Affairs**

**Before the Committee on the Judiciary
U.S. House of Representatives**

January 25, 2011

*How the Patent and Trademark Office Helps Can Help to Create Jobs***Statement of Robert J. Shapiro
Committee on the Judiciary, U.S. House of Representatives
January 25, 2011**

I am pleased and honored to testify today on the role of the Patent and Trademark Office (PTO) in helping to create employment. I approach this matter as an economist who has served in the government as Under Secretary of Commerce for Economic Affairs in the Clinton administration and in the private sector as chairman of Sonecon, an economic consultancy advising many companies whose value rests largely on the intellectual property protected by the patents and copyrights issued by the PTO.

It is commonly said that ours is an idea-based economy, and recent developments have made that a concrete reality. Over the last half-century, economists have documented the role played in the economic growth of the United States, the world's most successful advanced economy, by intellectual property and the innovations which embody it. Since the 1950s, researchers starting with Robert Solow established that the development and adoption of economic innovations have been the single most powerful factors determining America's underlying rate of growth and productivity in the 20th century. Solow, who was awarded the Nobel Prize for this work, and others have estimated that 30 percent to 40 percent of the gains in productivity and growth achieved by the United States from 1900 to the 1980s can be traced to economic innovation in its various forms. These innovations encompass the development not only of new technologies, but also new materials and processes, new ways of financing, marketing and distributing goods and services, and new ways of managing a workplace and organizing a business.

The dominant role of new ideas in our economic life also is documented in a recent study from the Federal Reserve System. The authors analyzed the various ways that companies use ideas by examining business spending on so-called "intangibles," including software programs and databases; scientific and non-scientific R&D, new-product development by service firms; new business models and corporate cultures; and more. By classifying these outlays as capital investments intended to increase future earnings, the researchers found that U.S. businesses invest as much in these idea-related intangibles as they do in all plant, equipment and other traditional, tangible forms of investment.

The Federal Reserve study shows that since the 1990s, U.S. business spending on long-lasting, knowledge capital grew faster than any other type of business or personal spending. Finally, they traced more than four-fifths of recent gains in U.S. productivity to the development and application of new ideas, especially those involving new information technologies: Over the years 1995-2001, the development of new information technologies accounted for 28 percent of those productivity gains, capital investment in those technologies accounted for another 34 percent, research and development accounted for 10 percent, and changes in the organization of firms and worker training in response to these innovations accounted for another 10 percent. By applying this approach to data for more recent years, other researchers estimate that nearly 90

percent of U.S. economic growth from 2001 to 2003 can be attributed to increases in the stock of intangible assets.

Finally, research by the McKinsey Global Institute has documented the role of innovation in the value of large corporations. They found that in 1984, the book value of the 150 largest U.S. public companies – what their physical assets could be sold for on the open market – was equal to 75 percent of their market caps: Three-quarters of the value of large American companies was derived from its physical assets. By 2005, the book value of the 150 largest American companies was equal to just 36 percent of their market caps: Nearly two-thirds of their value is now based on their intangible assets, principally the value of the ideas protected by patent and copyrights.

The reason that United States is the world's dominant producer of economically-powerful innovations – and consequently, why the United States had the strongest growth and productivity gains of any advanced economy from 1990 to 2005 – is that innovation thrives in places where commitments to research and development are strong, the political and economic environments are stable, barriers to starting new businesses are relatively low, and, perhaps most important, intellectual property rights are sound, respected and enforced. The process of creating these innovations requires taking investment capital away from uses known to produce substantial returns, and using it instead in much riskier ways that promise unknown returns at some unknown time. The necessary incentive to do so comes from the monopoly privilege granted by patents and copyrights, the only monopoly rights legally provided in our market-based system. And the integrity of those patents and copyrights depends on the quality and due speed with which the PTO adjudicates the claims by innovators that their new ideas meet the criteria for the monopoly rights attached to patents and copyrights.

Innovations and the intellectual property embodied in them help create jobs, because they play a critical role in economic competition between domestic companies within the economy and between American firms and their foreign rivals in both domestic and third-country markets. The pace of the development, adoption and application of innovations across our economy also greatly influences how much our GDP, productivity and incomes increase, compared to other nations. In fact, the capacities to develop new intellectual property and apply the consequent innovations have become the primary grounds of the economic competition between American firms and those in other advanced economies, within their own markets and across the global economy.

While intellectual property protections promote the development of innovations, their impact on the nation's economy and competitiveness depends on the extent to which businesses and households adopt them and how effectively they use them. Broad adoption of many innovations takes many years. Jet engine travel, for example, spread slowly, because travel on early jetliners was expensive and offered travelers only modest benefits compared to prop airplane travel. The adoption of an innovation also involves significant costs, which may include new training and organizational changes as well as the price of a new technology. Decades after the development of supersonic jet travel, for example, the high price of the technology continues to block its general adoption for commercial use.

However, broad adoption can occur fairly rapidly, especially in the area of digital technologies. The reason is that these technologies often produce what economists call “network

effects” that encourage their diffusion, because the usefulness of the new technology or business method based on it increases as more people or businesses adopt it. The value of a computer operating system such as Windows, for example, increases as more people adopt it and use it to share or exchange information. Such network effects, in turn, tend to take hold as the utility of an innovation increases – for example, as more applications are written for the Windows system – and as its cost declines.

Some innovations also produce a type of cascading dynamic, in which their introduction and adoption are followed by subsequent innovations which build or depend on the initial technology, and which may have greater impact on a nation’s productivity and competitiveness than the initial innovation. The most prominent example in recent years is the personal computer and Internet, although electrification and early 20th-century mass production also exhibit these features. The spread of the Internet depended first on the previous broad adoption of personal computers, and later on the innovative development of “killer applications” starting with e-mail. The Internet also has produced cascading tiers of additional innovation, especially in the development of Internet-based businesses and the unique services which they can provide.

A more common type of cascading effect involves incremental improvements or enhancements of an existing innovation, which extend its usefulness to more industries or activities. This process may occur through changes in the product or improvements in the production process which reduce the price and thereby promote its adoption for more purposes and industries. Both processes are apparent in innovations such as cellular telephony and personal computing devices, which gained a broad range of new capacities in a brief time. In all of these cases, the cascade depends on the patent regime. We grant time-limited monopoly rights to innovations through patents; and in exchange, the inner workings of the innovation become public knowledge. In that way, subsequent innovators can build on an initial breakthrough, often using reverse engineering to develop an alternative that may be more useful or less expensive.

While many forces affect the broad adoption of many innovations in advanced countries like ours, the principal underlying factor is usually the strength of competition. Once an innovation proves to be profitable for its developer and initial adopters, by raising productivity or expanding the goods and services available to businesses and consumers, that success exerts competitive pressures on other businesses to follow suit. That process also increases the incentives to develop innovations by raising the returns to the original innovator. All of those dynamics, which ultimately lead to productivity and employment gains, depend on the integrity of the patent process and the enforcement of patent rights.

In a period of rapid technological advance, such as the current time, competition itself often centers on innovation. Cellular telephony is a current example of innovation-based competition, in which U.S. companies such as Apple (i-Phone) and Google (Android) have vastly expanded the U.S. share of the global market for a product which European and Japanese firms initially dominated, creating thousands of jobs at home. In such periods, economies like ours that foster the development and adoption of innovations can secure a significant competitive advantage even when factors such as the cost of labor and capital produce competitive disadvantages.

However, globalization allows companies in advanced economies to combine the advantages derived from the conditions that foster innovation with those based on low factor costs, limiting the employment benefits. American companies are particularly successful in this use of globalization, developing new products in the United States and then using foreign-direct investment in low-cost countries for much of their production and assembly operations. In 2005, 27 percent of the total stock of U.S. foreign direct investment was located in low-cost developing nations, compared to less than 10 percent for Germany, France and Britain. This economically powerful combination helps explain why the global market share of U.S.-based high-tech companies increased from 24 percent in 1990 to 41 percent in 2005, with much smaller gains for U.S. employment in that sector.

As an idea-based economy, the United States is increasingly dominated by intellectual-property-intensive industries. One recent study, for example, found that in 2003, IP-dependent industries accounted for 20 percent of private sector GDP, but 40 percent of the growth of private industry, attesting once again to the impact of innovations and the intellectual property embodied in them on U.S. productivity. These IP-dependent industries also accounted for 40 percent of all exportable high-value-added goods and services and nearly 60 percent of the growth of exportable high-value-added goods and services, demonstrating the disproportionate impact of innovation on our international competitiveness.

America's recent capacity to extract greater productivity gains from IT innovations, compared to Europe or Japan, also has spurred a number of studies comparing conditions across the various economies. One recent study examined the role of the "knowledge economy" in explaining why from 1995 to 2004, productivity gains accelerated here while slowing down in the EU-15. Over this period, the EU-15 grew an average of 2.2 percent per-year while the United States expanded an average of 3.7 percent annually, producing widening gaps across key economic measures. By 2004, Europe's GDP *per capita* was only 74 percent that of the United States, the hours worked *per capita* by Europeans were 82 percent that of Americans, and GDP and capital input, per-hour worked, across the EU-15 were both only 90 percent of the levels in the United States. The researchers found that the traditional factors of economic production – labor and capital investment – could not explain these differences. Rather, they traced these differences to three factors which together, they argue, comprise the "knowledge economy" – investments in information technologies, the increased use of highly-skilled workers, and multifactor productivity encompassing both organizational and technological innovations.

Advanced economies which nurture and promote the conditions for innovation and its broad adoption, and thus become more focused on innovation-based competition, have a competitive advantage over those more focused on price or efficiency-based competition, which is more the province of developing economies. Promoting those conditions, therefore, should be a central priority for national growth and employment policy. Inventive and commercial genius are qualities that know no national borders. But the United States is the home to a disproportionate share of companies capable of developing and adopting the powerful and often disruptive innovations which help drive economic progress and competitiveness share. That reflects, first, strong intellectual property protections for the new ideas that animate innovations. However, every advanced economy today has reasonably strict IP rights and protections – a major change from the 19th century. The sustained development and broad application of new intellectual property, then, also depends on other social, economic and political conditions. An

Mr. GOODLATTE. Thank you, Mr. Shapiro.

Mr. Norman, should the PTO expand the pilot projects for green technology and humanitarian inventions? What do you think most inventors would say about the need for these programs?

Mr. NORMAN. A few points to be made concerning these PTO initiatives. First of all, they are noble efforts to do—to take action to-

ward the policy goals of innovation and expansive use of the innovation. We have, we as patent owners have been in favor of the green technology initiative because we presume those would be relatively small pilot programs that would not detract from large areas of the Patent Office allowing different types of applications to be moved in front of others. And so a small pilot program we found to be acceptable.

We have other concerns with the humanitarian effort because in our view it is creating a set of programs within the Patent Office, should it be followed, that would detract from the prime mandate of the Patent Office to pick up and in a principled manner examine and issue patents in the order in which they arrive at the office.

Most concerning about some of the issues in the humanitarian program is the fact that it would allow the creation of artificial markets, for vouchers that could be freely traded, and once an entity or an individual inventor or a law firm obtained one of these vouchers they could trade it on the open market so that it could be purchased at a cost and used by a third party or used by another entity that was not involved in the initial reexamination that provided the voucher.

Mr. GOODLATTE. I'm going to interrupt you because I have got a limited amount of time to ask several questions.

Mr. NORMAN. Certainly. And so we were not in favor of creating a new market within the patent system.

Mr. GOODLATTE. I've gotcha.

Mr. Shapiro, you commented that strong government support for basic research and development is critical in the IP context since incentives for private firm to undertake basic R&D are weak. Could you elaborate on that?

Mr. SHAPIRO. Certainly. Basic R&D as opposed to later stage research and development has always been considered what economists—what Adam Smith called a market failure. And the reason is that businesses make investments when they can capture all the returns from that investment. In certain cases it is impossible to capture most of the returns because most the returns come from spillovers.

So for example, if you have basic research in genetics, which is an area which has received enormous public support through the National Institutes of Health, the reason we do that is that those breakthroughs lead to many other breakthroughs by innovators who are different from the ones who would have funded the initial basic research. And so they could say, gee, our investment has led to all of these profits by other companies that we can't capture. We want to make investments that will produce, in which we can capture, all those returns. And as a result, at a very basic level, it's basic science we're talking here, basic physics a basic biology, the private sector incentives to make those investments are quite weak. And that has always been the basis for government support in those areas.

Mr. GOODLATTE. Thank you.

Mr. Norman, what's your beef with programs that prevent an inventor to delay completion of their application? For that matter, why would an inventor want to do this and how could this affect the U.S. job situation down the road?

Mr. NORMAN. Sure. Thank you. IPO has not been in favor of programs that would allow for deferred examination because there is a flip side to a patent right. When an inventor files a patent application and it is published in 18 months, it allows all competitors to see the direction in which the inventor is taking that invention or that set of claims and those possibly patentable claims. Soon thereafter we would hope to see those patents—those patent applications be granted as issued patents that will have enforceable rights. However, if the examination of these patent applications is deferred for 30 months or longer and then further deferred because of delay within the Patent Office, we can easily be looking at a period of time, perhaps 5, 6, 7, 8 or 10 years, before a competitor, an innocent competitor, could really have a true view of whether or not a patentable invention claim is going to issue out of the patent application. Therefore, competitors do not have the ability to see what's really going to issue out of the Patent Office. And therefore, we do not like to see deferred examination, because we like to see open, transparent and clarity of patent rights sooner rather than later, and we would like to see the Patent Office working to meet those goals. Because the more we invest to engineer around patent claims that never end up issuing, the more duplicative effort and waste we put in our research and development, costing us wasted innovation and a loss of jobs.

Mr. GOODLATTE. Thank you.

The gentleman from North Carolina, Mr. Watt.

Mr. WATT. Thank you, Mr. Chairman. Mr. Shapiro, you were here earlier when I questioned Secretary Kappos and also from my opening statement I raised the prospect that the President would be this evening making comments about innovation and the importance of innovation and the Patent Office to stimulating the economy and creating jobs. I think you've had occasion to at least in the past, I don't know about for this particular speech, advise Presidents, possibly including this one, on articulating that important connection between job creation, innovation patents. If you were advising him, what would be your advice to him on how you articulated that in a 1-minute capsule form?

Mr. SHAPIRO. Well, you know economists are not very good at 1-minute capsules of anything. The fact seems to be that our—the American economy has become the—an idea-based economy to a greater degree than any other economy in the world. Most of the value that is produced in this economy is now derived from ideas, and we compete in the world on the basis of our ideas; that is, we compete on the basis of quality and innovation. We don't compete on the basis of price. We can't compete with China on price, and we can't compete with India on price. But we can compete with every country in the world in the ability to produce more useful and new products and new ways of conducting business that are more efficient and more responsive than the firms in any other place in the world. And that means we have to invest in the conditions, the things which make that happen.

Mr. WATT. Such as?

Mr. SHAPIRO. Such as basic research and development, such as an intensely competitive domestic economy. The only thing that drives people to change in any economy, to adopt innovations or to

develop them is competition. So we need to enhance competition, and we need to make sure that in an economy in which virtually every workplace is now dense with innovative technologies, that everyone has the opportunity to secure the skills to operate effectively in that kind of workplace.

Mr. WATT. Now, many of the idea-related intangibles, I think you referred to them as, that you just talked about and that you talked about in your paper are not necessarily all protected by the patent process. I assume you're not making a case for a broader category or categorization of what's patentable or what's protected intellectually?

Mr. SHAPIRO. No, I think that there are certain—although the Patent Office has patented certain things that would be considered business methods and not technologies, just with a kind of slight technological trigger. But the point is that again these intangible things which in the end resolve down to ideas, whether they are new or not, now dominate the U.S. economy.

Let me give you one very striking set of data. In 1984—

Mr. WATT. Very quickly because I want to get Mr. Norman's advice to the President on the State of the Union in a 1-minute bullet, too.

Mr. SHAPIRO. In 1984, the book value of the 150 largest U.S. companies, that's what you could sell all their assets, their physical assets for on the open market, was equal to 75 percent of their market value; that is, large U.S. companies were worth a little more than their physical assets. In 2005, the book value of the 150 largest U.S. Companies was equal to 36 percent of their book value. Two-thirds of the value of large U.S. Corporations in this period are derived from intangible assets and not from their physical assets. That's an idea-based economy.

Mr. WATT. Weigh in on this short articulation of how innovation and job creation fits in our economy, Mr. Norman.

Mr. NORMAN. Our economy. I agree with Mr. Shapiro is a knowledge-based economy, information-based. We can compete with every country in the world and we can compete extraordinarily well against every country in the world, but we have a competition for the best ideas going on and the best ideas can be embodied in a patent claim. Obtaining the best patent based upon the innovation and the work that you are willing to put into creating innovation is what then drives the system that allows us to then commercialize those inventions.

And I would tell the President do everything he can to sponsor innovation because I am doing it. At this moment I am preparing to send a son to college to study chemistry. And by golly, one of these days I want him to have a U.S. patent.

Mr. WATT. Now I take it that education then would be a major component of this whole pitch also?

Mr. NORMAN. Yes.

Mr. WATT. Mr. Chairman, I yield back. I'm over my time.

Mr. GOODLATTE. I thank the gentleman. I now recognize the gentleman from Pennsylvania, Mr. Marino.

Mr. MARINO. I thank the Chairman.

Mr. Norman, do we have the student intellect graduating from our universities to outpace other countries?

Mr. NORMAN. To outpace other countries? I haven't made a specific study of what we are doing, but it is certainly true that the number of science and engineering students both entering college and graduating from college has gone down as a percentage basis over the last 20 years, whereas in other parts of the world, India and China in particular, it has risen dramatically. However, I think there is a spectacular quality to the level of American ingenuity that is coming out of our research institutions, and you still see the United States be a key leader in key aspects of bioscience and material science, certainly in information technology. And what we need to do is continue apace to stay ahead, and a fantastic way to do that is to make be sure that the innovations are coming out of research institutions, both private and public because universities certainly are some of the largest patent holders in the United States. We want to see that those continue to rise and patent protection can be used to continue to create other—to foster other innovation and create other jobs, both within the academy and within industry.

Mr. MARINO. Thank you. Mr. Shapiro, did I infer correctly when you stated that the research and development is performed mostly in government because private industry does not want to take the risk?

Mr. SHAPIRO. Let me distinguish between two kinds of research and development, between a very basic level of research and development where we're talking about basic science, as opposed to research and development to make a better electric car battery. When the research and development, which is focused on particular products and processes and materials in which the commercial usefulness can already be seen or imagined, that all occurs and properly should occur only in the private sector.

The level of research and development that requires public support is at a much more basic level before the implications of that can be imagined, because the research hasn't come to fruition yet. And so for example, research into the particular molecular causes of certain illnesses, we don't know whether that would with have an application for a treatment that would have a market. It comes before that. And that's the kind of research which has traditionally received public support as opposed to the kind of research and development which is focused on producing a particular product where there is an understanding of the commercial potential.

Mr. MARINO. Do I have time for one more, sir?

Will we get more bang for our buck if we in the government—if the government sought out private industry in specifically related areas to do the expansion of the research and development?

Mr. SHAPIRO. I personally think that government is not very adept at deciding what areas of commercial development should be pursued, so that I think the scientists understand the basic science better and the businessmen understand the commercial development better. The government's role is to identify who is—who are—what are the appropriate scientific institutions that can carry on the basic research and then largely to get out of the way of the research and development of the private sector.

Mr. MARINO. Thank you, sir.

Mr. GOODLATTE. The gentlewoman from Florida, Ms. Adams.

Ms. ADAMS. Thank you, Mr. Chair. Mr. Norman, you were here when Mr. Kappos was asked what the appropriate inventory level would be. Would you agree with that level?

Mr. NORMAN. The Patent Office has made a study and published it which shows sort of the cross points whereby they need to have a specific backlog and how much they need to keep moving to sort of keep the machinery of the office moving, and I have no reason to dispute that. Absolutely there will by definition be a backlog, because nothing can get processed immediately. The exact size of that I'm unsure, but the data that we saw in their report did not seem unreasonable.

Ms. ADAMS. So in that vein if they were to receive more funding, as you're suggesting and as you're asking, then that would mean that they would increase their employees, which would mean that they would increase the number of backlog that would be acceptable; is that correct?

Mr. NORMAN. If they were to increase the number of employees it would, we would hope, allow them to more speedily do the examinations and decrease the backlog down to the level where it could be maintained at a constant. Our key point is that we very much need to see our patent applications coming out of the office, either with the final rejection or as a granted patent. We believe the sweet spot is somewhere within 18 to 20 months after the initial filing date. That would allow us to have the business certainty that we believe our corporations and our law firm clients need to be able to make a meaningful research investment to get something onto the market or at least to get the next round of capital funding for a very complex invention that would allow the creation of the jobs that would go with the development of a product that may take 10 years to get to the market.

Ms. ADAMS. I have no further questions.

Mr. GOODLATTE. I thank the gentlewoman. I have a couple more questions, Mr. Norman. We'll see if those prompt any other questions from the Committee.

Do you believe the PTO could implement a post-grant review system as a way to enhance patent quality; and would this overwhelm the agency, given its other missions and challenges?

Mr. NORMAN. I do believe that they could institute a post-grant review proceeding. I think that it should be phased in, if possible, so it's not just like turning on a light switch and suddenly they have a whole new judicial body full of administrative law judges sitting within the Patent Office. So it would take some phase-in.

But an important thing to remember would be if we move into a world where we have post-grant review, we would need to do that in conjunction with other changes in the U.S. patent law that allow for a more objective oversight of patent applications by the redefinition of prior art by moving the United States to a first-inventor-to-file system. That would actually make the underlying patent examination more simple, have greater transparency and greater clarity, and we would hope, therefore, would shorten the pendency time due to the more simplified sets of rules that go into a reformed patent system. So that would free up, we would hope and believe, more resources at the Patent Office to institute a post-grant review proceeding.

Mr. GOODLATTE. The other question is, do most users of the PTO fear search activities carried out by non-U.S. examiners, and is harmonization in the area a bad idea?

Mr. NORMAN. We have been in favor of harmonization of many aspects of the patent system. One part of harmonization is the workload sharing between some of the offices—the big offices such as the United States Patent and Trademark Office, the European Patent Office, and the Japan Patent Office. We do have work-sharing arrangements that would allow for search results, for instance, to be shared amongst those entities. Because, otherwise, we as end users, who more often than not also end up paying for patent applications in the European Patent Office and the Japanese Patent Office. If there's not a good work-sharing system set down, then we end up paying the Japanese Patent Office and the European Patent Office for exactly the same prior art search that we're already getting from the USPTO. And so we pay for all the same results.

So we are in favor of a work-sharing system. We have no standing resolution at IPO concerning whether or not the USPTO searching requirements should be outsourced, if that was the source of your question. But harmonization and work sharing amongst respectable, developed world patent offices, we have not had a problem with, because often we see exactly the same results coming out of all three anyway.

Mr. GOODLATTE. Thank you. Does that prompt any questions by the gentleman from North Carolina?

Mr. WATT. I just was wondering whether there has been research that tries to verify the extent of the quality problem with patents and whether both of you gentlemen have your own opinion about the extent of quality of patents as opposed to quantity.

Mr. NORMAN. Sure. Quality can always be improved in any—

Mr. WATT. First of all, has there been anybody who's done any kind of study on this, on the quality?

Mr. NORMAN. We have not done a study.

Mr. WATT. Are either one of you aware of any studies?

Mr. SHAPIRO. There are studies which try to get at quality kind of indirectly in terms of how many patents are later overturned. But it's a very hard thing to quantify.

Mr. WATT. Okay. I didn't mean to interrupt. Go ahead on your own opinion about your assessment of quality.

Mr. NORMAN. Sure. Just as Mr. Shapiro stated, some of the studies that are focused on how many patents are overturned only count a subset of patents that are commercially important. In many instances, those are patents that someone is willing to spend millions of dollars to try to overturn. And that is not the full set that we ought to be looking at when we gauge how effectively the Patent Office is doing its job, because it's dealing with millions of other patents that probably will end up being only licensed or perhaps never commercialized at all. Yet as a patent examiner they have the very difficult job of treating every patent that comes across their desk as if it were the next blockbuster that's going to break the market. And so that's a difficult job for them.

Mr. WATT. Your assessment of quality.

Mr. NORMAN. My assessment of quality is that it's improving.

Mr. WATT. Improving from what to what?

Mr. NORMAN. Well—

Mr. WATT. Thirty to 40 percent; 60 percent to 80 percent; 90 percent to 95 percent good quality patents we're awarding?

Mr. NORMAN. I can't say that I could put a percentage on it, but from a qualitative standpoint, what I see now, at least in the field of which I mostly practice, in pharmaceutical sciences and biotechnology sciences, the Patent Office has made great strides forward, much because the court system over the past decade has turned out a pretty fair amount of bellwether opinions from which the Patent Office could take guidance and build training guidelines around certain types of patent claims. So that's much better.

Mr. WATT. Mr. Shapiro.

Mr. SHAPIRO. There's certainly some evidence that a lot of—the view of a number of people who have been thinking about this for a long time that the quality has varied from time to time; that quality is particularly difficult when you're dealing with new industries, new aspects of science; that the inventors may be quite far ahead of—technically—of the examiners. That's the nature of science.

I think that we underestimate the potential cost of patents which are granted without sufficient specification, detail, and novelty; that they can actively discourage the development of much more effective innovations in that area; and that that's the kind of negative with respect to kind of this issue of quality is not often looked at but I think it's quite important. And I think that PTO and the economy would benefit from some serious effort to make a systematic evaluation of shifts in the quality of patents and what factors contributed. I think that would be quite important.

Mr. WATT. Mr. Chairman, while I have the mike, I will just ask unanimous consent to submit for the record a written statement from Shayerah Ilias of the Congressional Research Service. She had been a potential witness at the hearing today. We want to get her testimony into the record.

Mr. GOODLATTE. Without objection, we will welcome her testimony into the record.

[The prepared statement of Ms. Ilias follows:]



NOT FOR PUBLICATION
UNTIL RELEASED BY
HOUSE COMMITTEE ON THE JUDICIARY

WRITTEN TESTIMONY OF
SHAYERAH ILLIAS
ANALYST IN INTERNATIONAL TRADE AND FINANCE
CONGRESSIONAL RESEARCH SERVICE
BEFORE THE
HOUSE COMMITTEE ON THE JUDICIARY
SUBCOMMITTEE ON INTELLECTUAL PROPERTY, COMPETITION, AND THE INTERNET
HEARING ON
HOW AN IMPROVED U.S. PATENT AND TRADEMARK OFFICE CAN CREATE JOBS
JANUARY 25, 2011

Chairman Goodlatte, Vice Chairman Coble, Ranking Member Watt, and distinguished Members of the Subcommittee, my name is Shayerah Ilias and I am an Analyst in International Trade and Finance in the Congressional Research Service. Thank you for the opportunity to submit written testimony on behalf of the Congressional Research Service for today's hearing.

Per the request of the Subcommittee, my testimony addresses the history of the role of intellectual property rights (IPR) in the U.S. economy. It proceeds by: (1) discussing the historical and present context of congressional interest in IPR; (2) analyzing the relationship between IPR and the U.S. economy; (3) exploring the impact of counterfeiting and piracy on the U.S. economy; and (4) describing how IPR protection and enforcement have been advanced through U.S. trade policy.

Congressional Interest in Intellectual Property Rights

Intellectual property rights (IPR) are legal rights granted by governments to encourage innovation and creative output by ensuring that creators reap the benefits of their inventions. They may take on forms such as patents, trade secrets, copyrights, trademarks, and geographical indications.

Congressional interest in IPR dates back to Article I, section 8, of the U.S. Constitution, which states that "the Congress shall have Power... To 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." Three years after the ratification of the Constitution, Congress passed the first U.S. patent statute—the Patent Act of 1790, "an Act to Promote the Progress of the Useful Arts."

Since then, legislative interest in and activity related to IPR has grown. The United States considers the protection and enforcement of IPR critical to a number of U.S. national interests. Intellectual property (IP) is viewed as a strategic driver of U.S. productivity, economic growth, employment, higher wages, and exports. It also is considered a key source of U.S. comparative advantage, such as in innovation and high-technology products. In light of the recent international financial crisis and the U.S. economic downturn, congressional interest has focused on the role of IP in contributing to U.S. economic recovery. IPR enforcement is viewed as important because counterfeit and pirated products can cost U.S. firms billions of dollars in lost sales and, in some cases, can pose health and safety threats to American consumers. Additionally, IPR enforcement is valued from a national security perspective because of the potential entry of counterfeit products into the U.S. supply chain and possible linkages between organized crime and IPR infringement.¹

The United States is widely viewed as the global leader in innovation and creativity. Some attribute the U.S. competitive position to the United States' early establishment of strong legal mechanisms that provide incentives for innovation, balanced with support for the diffusion of innovative ideas.² Some argue that IPR protection is critical to maintaining U.S. industrial competitiveness on a global scale. In terms of enforcement of IPR, the United States faces the biggest challenge from emerging economies, where counterfeiting and piracy levels are high and enforcement of IP rules may be inadequate.

¹ Executive Office of the President (EOP), *2010 Joint Strategic Plan on Intellectual Property Enforcement*, June 2010.

² U.S. Government Printing Office (GPO), *Economic Report of the President*, Transmitted to the Congress February 2010, Washington, D.C., 2010.

The U.S. Patent and Trademark Office (PTO), an agency of the U.S. Department of Commerce, has a central role in protecting and promoting IPR. The PTO administers U.S. law pertaining to patents and trademarks. In addition, it develops IPR protection and enforcement policy; collaborates with other federal government agencies to develop IP provisions in U.S. trade policy; and offers training, technical assistance, and trade capacity building programs to assist in promoting strong IPR regimes in foreign countries.

From a policy perspective, congressional consideration of IPR may take place in the context of the National Export Initiative (NEI), an Obama Administration plan introduced in early 2010 to double U.S. exports in five years to create two million U.S. jobs.³ A report submitted by the President's Export Promotion Cabinet on implementing the NEI discussed the relationship between strengthening IPR regimes internationally and promoting U.S. exports.⁴ In December 2010, the President's Export Council sent a letter to President Obama highlighting the importance of addressing inadequate protection and enforcement of IPR as a means for "boosting exports and foreign sales, and promoting the sustained growth of well compensated U.S. jobs." The President's Export Council expressed support for making "efforts to combat weak and ineffective intellectual property regimes abroad an integral and essential part of the National Export Initiative."⁵

Role of Intellectual Property in the U.S. Economy

Nearly every industry depends on IPR for its businesses. Among the industries that are dependent on patent protection are the aerospace, automotive, computer, consumer electronics, pharmaceutical, and semiconductor industries. Copyright-based industries include the software, data processing, motion picture, publishing, and recording industries. Other industries that indirectly benefit from IPR protection include retailers, traders, and transportation businesses, which support the distribution of goods and services derived from intellectual property.⁶

The role of IPR in the U.S. economy has been longstanding.⁷ Some evidence suggests that factors linked to innovation account for about three-fourths of the United States' post-World War II growth rate.⁸ In recent years, the role of IPR in the U.S. economy has grown. Various studies suggest that IP-related industries are one of the largest source of jobs in the United States. One study using data from 2000-2007 found that, among tradable industries, IP-intensive industries surpass non-IP-intensive industries on a range of economic measures, including job creation, wages, output and sales per employee, and exports. During this time period, IP-intensive industries paid both their highly- and low-skilled employees close to 60% more than non-IP-intensive industries. The report also found that IP-intensive industries represented

³ "National Export Initiative," Executive Order 13534 of March 11, 2010, 75 *Federal Register* 12433, March 16, 2010.

⁴ Export Promotion Cabinet, *Report to the President on the National Export Initiative: The Export Promotion Cabinet's Plan for Doubling U.S. Exports in Five Years*, Washington, D.C., September 2010. The President's Export Promotion Cabinet is a high-level body comprised of the Secretaries or Directors of key federal agencies involved in U.S. export promotion efforts.

⁵ Letter from Jim McNemey, The President's Export Council, to President Obama, December 9, 2010, http://trade.gov/pec/docs/PEC_IPR_Letter_120910.pdf. The President's Export Council is a private sector national advisory committee on international trade.

⁶ Stephen E. Siwek, "Engines of Growth: Economic Contributions of the US Intellectual Property Industries," commissioned by NBC Universal, 2005, p. 2.

⁷ For more information, see CRS Report RL34292, *Intellectual Property Rights and International Trade*, by Shayerah Ilias and Ian F. Fergusson.

⁸ Arti Rai, Stuart Graham, and Mark Doms, *Patent Reform: Unleashing Innovation, Promoting Economic Growth & Producing High-Paying Jobs*, Department of Commerce, A White Paper from the U.S. Department of Commerce, April 13, 2010.

close to 60% of total U.S. exports during 2000-2007.⁹ More broadly, IPR-intensive industries also contribute positively to the U.S. economy through productivity gains and other spillover effects.

Industry-specific figures may further demonstrate the importance of IP to the U.S. economy. For example, in 2007, the business and entertainment software, motion picture, recording, and publishing industries, which rely on copyright protection, were estimated to contribute about \$889 billion to the U.S. economy ("value-added" to current GDP), or about 6.44% of the U.S. economy. This was an increase from 2006, during which the value-added of these copyright industries to the U.S. GDP totaled \$837 billion, or 6.35% of the U.S. economy. These copyright industries also accounted for nearly 23% of real U.S. annual economic growth in 2007, up from about 13% in 2006. In terms of U.S. employment, the copyright industries represented 4% of U.S. workers (5.6 million workers) in 2007, similar to the prior year. Foreign sales and exports from these industries amounted to \$126 billion in 2007, up from \$116 billion in 2006.¹⁰

The pharmaceutical industry, which is dependent on patents, provides another illustration of intellectual property contributions to the U.S. economy. In 2009, domestic sales by research-based pharmaceutical companies that are members of Pharmaceutical Researchers and Manufacturers of America (PhRMA) reached an estimated \$183 billion, while sales abroad by the PhRMA member companies totaled about \$103 billion.¹¹

Some advocates of civil liberties assert that empirical analysis on the role of IPR in the U.S. economy may not be fully evaluating the economic and commercial benefits of lawful exceptions and limitations to exclusive rights. For example, by one estimate, businesses that rely on "fair use" exceptions to U.S. copyright law contribute \$2.2 trillion to the U.S. economy.¹²

Impact of Counterfeiting and Piracy on the U.S. Economy

Advances in information and technology and declining costs of transportation and communication, spurred by globalization, have fundamentally changed information and trade flows. Such changes have created new markets for U.S. exporters, but at the same time, have been associated with the proliferation of counterfeiting and piracy on a global scale.

Several factors contribute to the growing problem of IPR infringement. While the costs and time for research and development are high, IPR infringement is associated with relatively low costs and risks and a high profit margin. According to the PhRMA, it takes a pharmaceutical company about 10 to 15 years of

⁹ Nam D. Pham, *The Impact of Innovation and the Role of Intellectual Property Rights on U.S. Productivity, Competitiveness, Jobs, Wages, and Exports*, NDP Consulting Group, April 2010.

¹⁰ Stephen E. Siwek, *Copyright Industries in the U.S. Economy: The 2003-2007 Report*, prepared for the International Intellectual Property Alliance (IIPA), <http://www.iipa.com>, pp. 3-7.

¹¹ PhRMA, *Pharmaceutical Industry Profile 2010*, Washington, D.C., March 2010, <http://www.phrma.org>, p. 50.

¹² Thomas Rogers and Andrew Zamosszcgı, *Fair Use in the U.S. Economy: Economic Contribution of Industries Relying on Fair Use*, Prepared for the Computer & Communications Industry Association (CCIA), 2010. CCIA, "Fair Use Doctrine Vital for All of Us," press release, November 18, 2009, http://www.cciainet.org/index.asp?sid_5&artid_125&evftlg_False. The "fair use" doctrine permits limitations and exceptions to the exclusive right afforded by copyright law. It permits limited use of copyrighted works without requiring permission from the right holder in certain cases, examples of which may include news reporting, research, teaching, library use, etc. See also CRS Report RL33631, *Copyright Licensing in Music Distribution, Reproduction, and Public Performance*, by Brian T. Yeh.

research and development to create a new drug. PhRMA member companies collectively spent an estimated about \$46 billion for research and development (domestic and abroad) in 2009.¹³ In contrast, drug counterfeiters can lower production costs by using inexpensive, and perhaps dangerous or ineffective, ingredient substitutes.

The development of technologies and products that can be easily duplicated, such as recorded or digital media, also has led to an increase in counterfeiting and piracy. Increasing Internet usage has contributed to the distribution of counterfeit and pirated products. Additionally, civil and criminal penalties often are not sufficient deterrents for piracy and counterfeiting.

Because of the secretive, illicit nature of IPR infringement, it is difficult to estimate the magnitude of its impact on U.S. producers and exporters. However, customs data on seizures of counterfeit and pirated goods may offer some idea of the magnitudes involved. One study by the Organization for Economic Cooperation and Development (OECD) indirectly extrapolated available customs data on seizures to conclude that world trade in counterfeit and pirated goods may have amounted to about \$200 billion in 2005. Updated estimates from the OECD suggest that trade in IPR-infringing goods may have totaled up to \$250 billion in 2007. During that same time period, the share of counterfeiting and pirated goods in world trade also is estimated to have increased—from 1.85% in 2000 to 1.95% in 2007.¹⁴

Data on pirated and counterfeit seizures of imports at the U.S. border shed light of the magnitude of the issue in the U.S. context. In FY2009, the Customs and Border Protection (CBP) and Immigration and Customs Enforcement (ICE) agencies made 14,841 IPR-related seizures, more than double the FY2005 level of 8,022. Between FY2005-FY2008, the domestic value of IPR-related seizures grew by more than 25% each year. The domestic value of seizures peaked at \$272 million in FY2008 and then dropped by 4% to about \$261 million in FY2009.¹⁵

American IP-intensive industries claim to lose billions of dollars each year due to IPR infringement. Some studies also claim that, beyond the direct losses faced by U.S. intellectual property-based firms, the U.S. economy faces additional “downstream” losses. According to this view, counterfeiting and piracy losses to U.S. firms, for example, also result in the loss of jobs that would have been created if the infringement did not occur, which translates into lost earnings by U.S. workers. This, in turn, translates into lost tax revenues for federal, state, and local governments from lost personal income, corporate income, and production taxes.¹⁶

¹³ *Ibid.*, p. 2.

¹⁴ Organization for Economic Cooperation and Development (OECD), *The Economic Impact of Counterfeiting and Piracy*, 2007. OECD, *Magnitude of Counterfeiting and Piracy of Tangible Products: An Update*, November 2009.

¹⁵ U.S. CBP and U.S. ICE, *Intellectual Property Rights Seizure Statistics: FY2008*, January 2009.

¹⁶ There may be limitations on data estimating the impact of counterfeiting and piracy on the U.S. economy. Some critics point out that many of the estimates for losses associated with IPR infringement are generated by industry groups that may have self-interested motivations and hence, the negative effects may be exaggerated.

The Evolution of IPR Protection and Enforcement in U.S. Trade Policy

Given the longstanding importance of IPR to the U.S. economy, the protection and enforcement of IPR has been a key component of U.S. international trade policy over the past several decades. The United States pursues IPR policy through a range of trade policy mechanisms, which are highlighted below.

Multilateral Trade Negotiations

The United States has sought to boost global protection and enforcement of IPR through international trade negotiations. Efforts by the United States, European countries, and the IPR business community in the late 1980s were important in elevating IPR as a trade issue on the agenda of the Uruguay Round of the General Agreements on Tariffs and Trade (GATT), the predecessor to the World Trade Organization (WTO). IPR-intensive industry groups argued that the prevailing international IPR regime, largely administered through “unenforceable” international treaties, was ineffective. U.S. industry criticized the lack of consistency in the promotion, protection, and enforcement of IPR across countries.¹⁷ The product of international negotiations was the 1995 WTO Uruguay Round Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS Agreement”), which sets minimum standards on IPR protection and enforcement with which all WTO member states must comply. The TRIPS Agreement includes extended phase-in periods for developing countries and least developed countries to bring their laws and enforcement mechanisms into compliance with the TRIPS Agreement.

While previous international agreements on intellectual property rights continue to exist, the TRIPS Agreement was the first time that intellectual property rules were incorporated into the multilateral trading system. Two basic tenets of the TRIPS Agreement are: (1) national treatment—signatories must treat parties of other WTO members no less favorably in terms of IPR protection than the party’s own nationals; and (2) most-favored-nation treatment—any advantage in IPR protection granted to the party of another WTO member shall be granted to nationals of all other WTO member states.

Through the WTO, the United States is able to file complaints against countries for not complying with commitments under the TRIPS Agreement. For example, in 2009, the United States achieved partial victories on two IPR-related WTO dispute resolution cases related to China’s IPR protection and enforcement.

In agreeing to launch the subsequent Doha Round of the WTO trade negotiations, trade ministers adopted a “Declaration on the TRIPS Agreement and Public Health” (the “Doha Declaration”) on November 14, 2001. The Declaration sought to alleviate developing country dissatisfaction with aspects of the TRIPS regime, confirming that the “TRIPS Agreement does not and should not prevent members from taking measures to protect public health.” The Declaration committed member states to interpret and implement the agreement to support public health and to promote access to medicines for all.¹⁸

¹⁷ Keith E. Maskus, *Intellectual Property Rights in the Global Economy* (Institute for International Economics, 2000).

¹⁸ For more information, see CRS Report R40607, *Intellectual Property Rights and Access to Medicines: International Trade Issues*, by Shayerah Ilias.

Regional and Bilateral Free Trade Agreements

The United States has advanced increased IPR protection in its free trade agreement (FTAs). IPR negotiating objectives for FTAs were first enacted in trade promotion authority (then known as fast-track authority) by the Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418). The act sought enactment and enforcement of adequate IPR protection from negotiating partners. It also sought to strengthen international rules, dispute settlement, and enforcement procedures through the GATT and other existing intellectual property conventions. This negotiating mandate led to the establishment of the TRIPS Agreement during the Uruguay Round and the IPR provisions in the North American Free Trade Agreement (NAFTA), which was implemented in 1994. In the intervening period since the 1988 Act, the TRIPS agreement came into force and the IPR provisions of NAFTA became the template for future bilateral or regional FTAs. Thus, the focus of IPR negotiating objectives shifted from creating to strengthening the IPR trade regime.

More recent FTA negotiations have been conducted under the Trade Promotion Authority Act of 2002 (P.L. 107-210). Two broad IPR negotiating objectives were included in the last U.S. trade promotion authority (P.L. 107-210), which was in effect between 2002-2007. They were: (1) to apply the existing IPR protection to digital media; and (2) to negotiate trade agreements in terms of IPR that "reflect a standard of protection similar to that found in U.S. law." These provisions have led to the negotiation of commitments in FTAs that go beyond the level of protection provided in the TRIPS Agreement and NAFTA.

In May 2007, the Bush Administration and Congress concluded a bipartisan agreement on trade policy that addressed some Members' concerns about the implications of enhanced IPR on developing countries' ability to meet public health needs.¹⁹ In particular, congressional leadership sought to ensure that pending FTAs allowed trading partners to have enough flexibility to meet their IPR obligations and to be able to promote access to life-saving medicines, while otherwise meeting their international IPR protection and enforcement obligations. IPR language previously negotiated in the FTAs with the developing countries of Peru, Panama, and Colombia subsequently were modified to reflect the agreement. Because Korea is an industrialized country, the United States did not significantly scale-down the patent protection obligations in the U.S.-Korea FTA.

At present, IPR, particularly in the area of pharmaceuticals, may prove to be a contentious issue in the Obama Administration's negotiation of the Trans-Pacific Partnership (TPP) Agreement, a proposed FTA that includes nations on both sides of the Pacific. The existing TPP, which came into effect in 2006, consists of Brunei, Chile, New Zealand, and Singapore. The United States, Australia, Peru, Vietnam, and Malaysia have begun negotiations to join, deepen, and expand this FTA.²⁰

Anti-Counterfeiting Trade Agreement

The Anti-Counterfeiting Trade Agreement (ACTA) is a proposed agreement being negotiated by Australia, Canada, the 27 member states of the European Union, Japan, South Korea, Mexico, Morocco, New Zealand, Singapore, Switzerland, and the United States. The ACTA would build on the minimum

¹⁹ The May 10, 2007 bipartisan trade agreement is available online at: http://wwwustr.gov/assets/Document_Library/Fact_Sheets/2007/asset_upload_file127_11319.pdf.

²⁰ For more information, see CRS Report R40502, *The Trans-Pacific Partnership Agreement*, by Ian F. Fergusson and Bruce Vaughn.

standards for IPR protection and enforcement set forth by the WTO TRIPS Agreement. It is being crafted independent of any existing international organization or agreement. The eleventh and final round of negotiations concluded on October 2, 2010, and the ACTA participants released to the public a draft text of the agreement. ACTA participants are working to resolve outstanding issues in the agreement. The Obama Administration is negotiating the ACTA as an executive agreement, meaning that the agreement would not be subject to congressional approval, unless it were to require statutory changes to U.S. law. Congress may play an oversight and consultative role during the negotiation process and engage in oversight of its implementation. According to the Office of the U.S. Trade Representative (USTR), the United States is negotiating the ACTA under a premise of consistency with U.S. law. However, some Members of Congress have raised concerns about the extent to which the ACTA may constrain congressional ability to change U.S. IPR laws or conflict with current U.S. law.²¹

Domestic Trade Policy Tools

The United States also has domestic trade policy tools at its disposal to advance IPR protection. Pursuant to “Special 301” provisions in U.S. trade law,²² the USTR identifies countries with inadequate IPR protection and enforcement regimes in its yearly *Special 301 Report*. The report designates countries under a series of categories. Priority Foreign Countries have the most “onerous or egregious” policies that deny intellectual property protection and limit market access to U.S. IPR-dependent companies and have the “greatest adverse impact” on relevant U.S. goods. The USTR launches investigations of the practices of Priority Foreign Countries. The Priority Watch List and the Watch List are administratively-created categories for countries whose policies and practices warrant concern but to a lesser degree than Priority Foreign Countries. Watch List countries have intellectual property protection inadequacies that are less severe than those of Priority Watch List countries. Some countries may be identified to be monitored for compliance with bilateral IPR agreements used to resolve investigations under Section 301. In some cases, identification on the Special 301 may induce a country to enhance its IPR regime.

Other IPR policy tools include Section 337 of the Tariff Act of 1930, as amended, which authorizes the U.S. International Trade Commission (ITC) to prohibit U.S. imports of infringing products, including pirated goods. Another domestic policy tool is the Generalized System of Preferences (GSP), wherein the United States may consider a developing country’s IPR policies and practices as a basis for offering preferential duty-free entry to certain products from the country, or as a basis for suspending GSP benefits.

Outlook

In sum, intellectual property has been a longstanding driver of the U.S. economy, supporting innovation, employment, and exports in the United States. The U.S. Patent and Trademark Office, through its administration of patents and trademarks and involvement in other activities, could be considered a critical part of efforts to strengthen the U.S. competitive position in the global market.

²¹ For more information, see CRS Report R41107, *The Proposed Anti-Counterfeiting Trade Agreement: Background and Key Issues*, by Sheyrah Ilias.

²² Section 182 of the Trade Act of 1974 (P.L. 93-618), as amended by the Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418) and the Uruguay Round Agreements Act (P.L. 103-465).

Mr. GOODLATTE. It looks like we have reached the end of the road here and a long way to go tomorrow and thereafter on patent reform issues and trying to get the very best we can out of the Patent Office. Gentlemen, you have contributed to that discussion very ably, and so we thank you.

I have to put a few magic words into the record here. Without objection, all Members will have 5 legislative days to submit to the Chair additional written questions for the witnesses, which we will forward and ask the witnesses to respond as promptly as they can so that their answers may be made a part of the record. Without objection, all Members will have 5 legislative days to submit any additional materials for inclusion in the record.

With that, again, I thank the witnesses, and declare the hearing adjourned.

[Whereupon, at 4:20 p.m., the Subcommittee was adjourned.]

