September 13, 2018

The Honorable Andrei Iancu  
Under Secretary of Commerce for Intellectual Property and  
Director of U.S. Patent and Trademark Office  
U.S. Patent and Trademark Office  
600 Dulany Street  
Alexandria, VA 22314  

Attn: Brendan Hourigan  

Via email: fee.setting@uspto.gov

Subject: Comments on the Notice of Patent Public Advisory Committee  

Dear Director Iancu:


**Comments on this 2018 Notice**

US Inventor has been vocal in expressing its concerns to the White House, the Department of Commerce, and the USPTO regarding the way in which the USPTO has previously exercised its fee-setting authority under section 10 of the AIA. Previous comments on this topic submitted by US Inventor are attached in the accompanying Appendix (including comments by US Inventor submitted to OMB, Commerce, and USPTO).

US Inventor has opposed the USPTO’s prior fee increases, all of which occurred prior to your confirmation as Director. We sincerely hope that your new directorship of the agency will presage a more transparent, fair, and equitable way in which the USPTO wields its section 10 fee-setting authority (to the extent that authority has not sunset). Below is a list of actions that you can take in connection with the 2018 Notice to differentiate yourself from the way your predecessors have abused section 10 of the AIA:
1. **Do not evade President Trump’s “Two-for-One” Executive Order using the “transfer payment” accounting gimmick.**

Each time the USPTO has exercised its section 10 fee-setting authority, the USPTO has called its patent fee increase a **“transfer payment”** from one group to another. *See* Final Rule, 82 FR 52780, at 52780 (Nov. 14, 2017); Final Rule, 78 FR 4212, 4213 (Jan. 18, 2013). This accounting gimmick was pioneered under the Obama Administration but has continued under the current Administration as recently as November 2017 (just 3 months prior to your confirmation as Director). By calling the increased fees a “transfer payment” from one group to another, the USPTO has brazenly claimed that the additional fees paid by patent applicants “does not affect the total resources available to society” and therefore “is not subject to the requirements of *Executive Order 13771* (82 FR 9339, February 3, 2017).” 82 FR at 52780, 52813.

“*Executive Order 13771*”—which the USPTO has so far evaded—is President Trump’s “Two-for-One” executive order! That executive order directs agencies to repeal two existing regulations for every new regulation.

The USPTO seems to believe that its fee-setting authority is exempt from President Trump’s “Two-for-One” executive order, but the USPTO has not explained why. The USPTO has not explained, for example, who is the second “group” of people receiving the increased fees paid by patent applicants? How is the total cost imposed on society zero, if inventors must pay *more money* out of their pockets to file and maintain a patent after the rule change than they did before the rule change? How is the total cost imposed on society (including the cost of lost innovation, lost jobs, and lost wages) equal to zero, if an inventor *decides not to file a patent application* because he cannot afford to pay the increased filing fees? None of these questions have been answered by the USPTO when the agency has invoked the “transfer payment” accounting gimmick to side-step President Trump’s “Two-for-One” executive order.

Under your leadership, Director Iancu, the agency should recognize and announce that increased fees paid by the patent community is not a “transfer payment” from one group of people to another group.

2. **Conduct a separate “elasticity analysis” for large-, small- and micro-entities when assessing the impact of regulatory burdens imposed by increased fees.**

Although the USPTO sets and adjusts fees for three different types of entities—large-, small-, and micro-entities—the USPTO expressly “assumes” that all three entity types are affected the *same* way by a fee increase. *See* Final Rule, 82 FR at 52801 (responding to US Inventor’s comment that “that the [USPTO’s] elasticity supplement does not address elasticity separately for large, small, and micro entities”
by responding that “[i]n this rule, the Office assumes that the fee rate adjustments are not substantial enough to create a significant and measurable change in demand for existing products and services regardless of entity size.”) (emphasis added).

The USPTO has provided no justification for its “assumption” that all three entity types have the same ability and willingness to pay more fees. Obviously, a trillion-dollar company like Apple or Amazon can afford to pay the USPTO’s increased fees more easily than, say, a micro-entity individual inventor (who by dint of under the AIA must have a gross income of less than three times the median U.S. household income). Empirically, as US Inventor has previously explained in its public comments, there is evidence that small inventors react to a hardship in the patent system much differently than large firms do. See Alberto Galasso & Mark Schankerman, Patent Rights, Innovation and Firm Exit, National Bureau of Economic Research, NBER Working Paper 21769 (Dec. 2015) (finding that loss of a patent causes firms to reduce innovation by about 50 percent—an effect the authors found was “driven entirely by small firms”—and also increases the probability of exit for small (but not large) firms).

But despite the obvious and unequal “elasticity” between small and large firms, the USPTO treats small businesses the same as large businesses in terms of the impact of regulatory burdens.

Under your leadership, Director Iancu, the agency should conduct a separate “elasticity analysis” for large-, small- and micro-entities when assessing the impact of regulatory burdens imposed by increased fees.

3. When calculating the cost of a fee increase, do not merely include the “direct costs” of the additional fees themselves, but also include the “indirect costs” of lost jobs, lost wages, and increased trade deficit.

As US Inventor has previously explained in its public comments, regulations that disincentivize the procurement and enforcement of patents have a negative impact on (1) wages, (2) jobs, and (3) trade deficit.

First, wages are strongly correlated with patents. The Federal Reserve Bank of Cleveland has calculated that patents are the single largest factor in predicting a community’s relative income. See Federal Reserve Bank Of Cleveland, 2005 Annual Report, at 17. The Brookings Institute found that “[i]f the metro areas in the lowest quartile patented as much as those in the top quartile, they would boost their economic growth by . . . an extra $4,300 per worker.” Jonathan Rothwell et al., Patenting Prosperity: Invention And Economic Performance In The United States And Its Metropolitan Areas, Brookings Institute at 15 (Feb. 2013). The Commerce Department found that “workers in IP-intensive industries earned an
average weekly wage of $1,312,” which is “46 percent higher than the $896 average weekly wages in non-IP-intensive industries in the private sector.” U.S. DEP’T COMMERCE, INTELLECTUAL PROPERTY AND THE U.S. ECONOMY: 2016 UPDATE at ii.

Second, jobs are strongly correlated with patents. The Commerce Department found that “IP-intensive industries” (including patent-intensive industries) directly or indirectly supported 45.5 million jobs, about 30 percent of all employment in the United States. See U.S. DEP’T COMMERCE, INTELLECTUAL PROPERTY AND THE U.S. ECONOMY: 2016 UPDATE at ii. The report finds that “[p]atent- and copyright-intensive industries have seen particularly fast wage growth in recent years, with the wage premium reaching 74 percent and 90 percent, respectively, in 2014.” Id. Likewise, the U.S. International Trade Commission has correlated the impact of the strength of a country’s IP laws on U.S. jobs. See U.S. INT’L TRADE COMM’N, CHINA: EFFECTS OF INTELLECTUAL PROPERTY INFRINGEMENT AND INDIGENOUS INNOVATION POLICIES ON THE U.S. ECONOMY, USITC Pub. No. 4226 (May 2011) at xx (calculating that “if IPR protection in China improved substantially, U.S. employment could increase by 2.1 million FTEs (full-time equivalent workers”). Moreover, Stanford Professor Stephen Haber surveyed “an array of studies employing econometric methods in an attempt to discern causal relationships between patent strength and economic growth” and “concludes that the weight of the evidence supports the claim of a positive causal relationship between the strength of patent rights and innovation—and thus, economic growth.” Stephen Haber, PATENTS AND THE WEALTH OF NATIONS, 23 GEO. MASON L. REV. 811, 812 (2016).

Third, the U.S. trade deficit increases when fewer U.S. companies received payments from foreigners in exchange for a license to the U.S. intellectual property. Indeed, “charges for the use of intellectual property” is a category of international trade that gives the United States a trade surplus of over $85 billion in IP royalties and license fees. U.S. CENSUS BUREAU, BUREAU OF ECONOMIC ANALYSIS, U.S. INTERNATIONAL TRADE IN GOODS AND SERVICES (Oct. 5, 2016). But, that surplus diminishes—and the overall U.S. trade deficit of $500 billion widens—when fewer U.S. companies apply for and maintain U.S. patents that otherwise would have been licensed to foreign companies paying royalties to use those patents.

When US Inventor filed comments urging the USPTO to include these costs as part of its calculation of the burden imposed by its fee increase, the USPTO declined to do so. See Final Rule, 82 FR at 52801 (acknowledging US Inventor’s comment that “patent applications, patent issues, and maintenance fees would decrease, all of which would lead to lost jobs, lost wages, and an increased trade deficit”, but refusing to include these costs in the USPTO’s cost calculation).
Under your leadership, Director Iancu, the agency should include as part of the calculation of the costs of any rulemaking, the impact of the proposed rule on (1) wages, (2) jobs, and (3) trade deficit.

4. **Return funds from examination fees and maintenance fees that were improperly redirected to the PTAB back to examination.**

This transfer was illegal under the AIA. But worse, it is damaging to take funding from the side of the USPTO that creates a patent to protect a property right, which is already underfunded, and transfer those funds to the side of the USPTO that destroys the same patent. This damage works to lower patent quality. Once lowered, more petitions are made to institute IPR’s, PGR’s and CBM’s which further drains funding from examination to the insolvent PTAB. This is vicious circle that works to destroy the reliability and value of U.S. patents.

5. **Any fee increase must state with specificity how that fee increase will improve the reliability of patents.**

Reliability of patents is rightly your top concern. Today, U.S. patents are junk assets. The odds of invalidation in the PTAB and under the errant concept of an abstract idea as legislated by the courts under Section 101 is incredibly high.

This failure in reliability of a U.S. patent reduces the value of all patents, but this devaluation of patents is most acute in funding of early stage companies that are dependent on the reliability of U.S. patents. Patents have turned into a game of big numbers as a result. As the number of patents in a portfolio go up, the odds of killing all the patents go down. Some will survive. But the odds of killing all of the patents in a small portfolio, like those held by independent inventors and early stage companies, are too high to attract investment.

Increasing fees to obtain and hold junk patent asset, as is the case now, will undoubtedly stop many independent inventors and small entities from filing for patent protection in the U.S. While there has been little reporting from the USPTO on trends of small entities paying maintenance fees, the effect of raising costs for a junk asset is no doubt showing itself in a drop of small entities maintenance fees. It appears that this drop is the likely reason for increasing the first maintenance fee by such an extraordinary margin.

Raising fees without improving the reliability of patents will only serve to push inventors overseas, where patent rights are much more secure.

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About US Inventor

US Inventor is a non-profit association of inventors devoted to protecting the intellectual property of individuals and small companies through education, advocacy, and reform. Believing that the interests of large corporations are disproportionately overrepresented in the current discussions regarding patent reform, US Inventor aims to encourage dialogue between lawmakers, inventors, and other patent stakeholders concerning the effects of past and proposed patent reform legislation and federal court decisions on the patent rights of small businesses and sole inventors. US Inventor strongly believes that everyone can build the next best mousetrap. US Inventor’s vision is to help teach people that process as well as defend that ability on Capitol Hill. US Inventor brings together the best and brightest innovators of today to help the best and brightest innovators of tomorrow. We teach, promote, and defend the invention process and business methods involved in taking an idea, making a profit, and changing lives.

Respectfully submitted,

[Signature]

Paul Morinville

US Inventor
March 31, 2017

Earl Comstock  
Director of Policy and Strategic Planning  
U.S. Department of Commerce  
Herbert C. Hoover Building 1401  
Constitution Ave. NW  
Washington, D.C. 20230

Subject: Comments on “Impact of Federal Regulations on Domestic Manufacturing,” 82 FR 12786 (March 7, 2017)

Dear Director Comstock:


About US Inventor

US Inventor is a non-profit association of inventors devoted to protecting the intellectual property of individuals and small companies through education, advocacy, mentoring, and reform. Believing that the interests of large corporations are disproportionately overrepresented in current discussions regarding patent reform, US Inventor seeks to encourage dialogue between lawmakers, inventors, and other patent stakeholders concerning the effects of past and proposed patent reform legislation and federal court decisions on the patent rights of small businesses and sole inventors. US Inventor strongly believes that everyone can build the next best mousetrap; however, our gold standard system for effectively rewarding the actual innovator is seriously under attack.

US Inventor's vision is to broaden people's understanding of the process of protecting the “Labours of the Mind” as well as to defend this fundamental Constitutional right on Capitol Hill. President Lincoln, the sole president to have a patent, famously said that “The patent system added the fuel of interest to the fire of genius” – a quote inscribed on the façade of the Department of Commerce’s Herbert C. Hoover Building. We too believe what history has dramatically proven about our patent system. US Inventor brings together the best and brightest innovators of today to help the best and brightest innovators of tomorrow. We teach, promote, mentor and defend the invention process and business methods involved in creating an invention, making a profit, and benefiting lives.
RESPONSES TO QUESTIONS REGARDING REGULATORY BURDEN/COMPLIANCE:

QUESTION 1: Please list the top four regulations that you believe are most burdensome for your manufacturing business. Please identify the agency that issues each one. Specific citation of codes from the Code of Federal Regulations would be appreciated.

ANSWER:


The proposed rule, PTO-P-2015-0056 (81 Fed. Reg. 68150), would increase the fees that inventors must pay the PTO at each stage of the patent application process (including filing, obtaining, and maintaining a U.S. patent). The PTO’s proposal would increase these fees by **$710 million**. See 81 FR at 68174. The PTO itself “acknowledges that the fee adjustments proposed will impact all entities seeking patent protection and could have a **significant impact on small and micro entities.**”.

By the USPTO’s own admission, “This rulemaking has been determined to be **significant** for purposes of Executive Order 12866 (Sept. 30, 1993), as amended by Executive Order 13258 (Feb. 26, 2002) and Executive Order 13422 (Jan. 18, 2007).” 81 FR at 68179. This “significant” rulemaking was pushed forward in the waning days of the Obama Administration, and today the PTO—under the leadership of Obama-holdover Michelle K. Lee—says the agency is “finalizing a draft of its rulemaking package” and anticipates the higher fees to go into effect in “September 2017.”

The $710 million figure, while “significant” in itself, is only the **direct** added cost of rule. It ignores the huge **indirect** added costs on the U.S. economy as a whole, and to small businesses in particular. As US Inventor explained in written comments to the PTO on this proposed rule (see attached Exhibit), many small companies and individual inventors will not be able to afford the PTO’s higher fees and will simply stop applying for and maintaining U.S. patents. The resulting drop in patenting in the United States will have a significant negative impact on the U.S. economy as a whole—including (1) lost wages, (2) lost jobs, and (3) an increased trade deficit.

First, **wages** are strongly correlated with patents. The Federal Reserve Bank of Cleveland has calculated that patents are the **single largest factor** in

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1 USPTO Budget Update, PPAC Quarterly meeting (March 2, 2017), [https://www.uspto.gov/sites/default/files/documents/20170302_PPAC_Budget_Update.pdf](https://www.uspto.gov/sites/default/files/documents/20170302_PPAC_Budget_Update.pdf)
2 USPTO Subject Matter Eligibility Guidelines (last modified Mar. 24, 2017)
predicting a community’s relative income. (See Exhibit a page A6.) The Brookings Institute found that “[i]f the metro areas in the lowest quartile patented as much as those in the top quartile, they would boost their economic growth by . . . an extra $4,300 per worker.” (Id.) The Commerce Department found that “workers in IP-intensive industries earned an average weekly wage of $1,312,” which is “46 percent higher than the $896 average weekly wages in non-IP-intensive industries in the private sector.” (Id.) Second, jobs are strongly correlated with patents. The Commerce Department found that “IP-intensive industries” (including patent-intensive industries) directly or indirectly supported 45.5 million jobs, about 30 percent of all employment in the United States. (Id. at A6-A7.) Third, the U.S. trade deficit increases when fewer U.S. companies received payments from foreigners in exchange for a license to the U.S. intellectual property. Indeed, “charges for the use of intellectual property” is a category of international trade that gives the United States a trade surplus of over $85 billion in IP royalties and license fees. (Id. at A7-A8.) But this surplus diminishes, and the overall U.S. trade deficit of $500 billion widens, when fewer U.S. companies apply for and maintain U.S. patents and other intellectual property rights, and when foreign companies are less willing to pay for a license because of a perception that U.S. patents can be avoided or invalidated. (Id. at A8.)

The Secretary should stop the PTO fee increase from going into effect.

#2 – PTO’s Subject Matter Eligibility Guidelines.

The Secretary should repeal the PTO’s Subject Matter Eligibility Guidelines, which go far beyond what is legally required under the statute (35 U.S.C. § 101) and Supreme Court case law. The Guidelines purport to “interpret” the law regarding patent eligibility under 35 U.S.C. § 101, and therefore the Guidelines constitute a “rule” within the meaning of the Administrative Procedure Act, 5 U.S.C. § 551(4) (defining “rule” as any “agency statement” to “implement, interpret, or prescribe law or policy”).

However, rather than simply apply the law of patent eligibility, the PTO Guidelines go much farther and make new law. The Guidelines are harmful to U.S. innovation and to small business and entrepreneurs in particular.

The “abstract idea” exception, described in the PTO’s Guidelines, has thrown the meaning of patentable subject matter into chaos by failing to define what is or is not an abstract idea, and conflating analysis intended for §§ 102, 103 and 112 into § 101’s analysis. Today, what is patentable is completely in the eyes of the beholder.

Under the abstract idea exception, some PTO examination groups reject patent applications at rates above 90%, while the Patent Trial and Appeal Board invalidates around 90% of challenged patents, and trial courts invalidate 54%. Many of these patents are invalidated in preliminary motions without defining the claim terms and without evidence or testimony. Investors cannot predict what patent will be invalidated and justifiably assume patents have virtually no value in investment valuations of early stage startups.

The PTO should apply the Supreme Court decisions regarding § 101 in a manner that is narrowly limited to the holdings of those cases, rather than expanding those cases beyond the relevant facts and beyond what § 101 itself requires.

#3 – PTO’s 37 C.F.R. §§ 42.1-42.304 (Trial Practice Before the Patent Trial & Appeal Board).

The Secretary should repeal 37 C.F.R. §§ 42.1-42.304, which are the regulations that allow a patent to be challenged at the Patent Trial & Appeal Board (“PTAB”).

The PTAB is an administrative tribunal within the PTO. The PTAB primarily reviews legitimately issued patents under three distinct procedures: Inter Partes Review, Post Grant Review, and Covered Business Method Review. PTAB procedures are highly destructive, rendering most patents valueless for funding at an early stage.

Under 35 U.S.C. § 282(a), a patent is a presumptively valid property right, yet the PTAB disregards this law by treating patents as a public right, not a private property right. The PTAB invalidates at least one patent claim in more than 95% of the patents reviewed. Invalidating just one claim can neuter the enforceability of the entire patent, thus destroying it. An inventor’s cost in defending a patent against a PTAB trial starts at around $300,000 and burns up to five years of the patent’s life. Big corporations are “gang tackling” small inventors by filing multiple PTAB trials on the same patent, which often drives up the cost of defending a patent into the multiple millions of dollars. Multiple challenges are mounted against the same patent because courts give no “estoppel” effect that would otherwise prevent further duplicative challenges.

The PTAB must be eliminated. Merely amending the rules will not fix its systemic problems. PTAB invalidation rates will undoubtedly vary with every new PTO Director, Secretary of Commerce, and President. This will leave the patent system perpetually unstable and, as such, unable to drive economic growth and job creation because patents will never be able to attract investment at early stages.

#4 – USPTO’s 37 C.F.R. § 1.56 (Duty to disclose information material to patentability).

The Secretary should repeal and replace 37 C.F.R. § 1.56 as proposed in the notice of proposed rulemaking PTO-P-2011-0030, 81 Fed. Reg. 74987 (Oct. 28,
The current version of 37 C.F.R. § 1.56 is outdated and overbroad. The rule imposes a burden on inventors that is far more onerous—and requires far more documents to be submitted to the PTO—than is required under current binding case law, namely, *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011) (en banc).

The PTO has dragged its feet in amending § 1.56 to bring the agency into compliance with the six-year old *Therasense* decision. The PTO initially proposed to amend this rule shortly after the decision, when the PTO issued a notice of proposed rulemaking in July 2011. See 76 FR 43631 (July 21, 2011). After receiving mostly supportive comments on the proposal from the public, the PTO did nothing. Five years later, in October 2016, the PTO issued a second notice of proposed rulemaking, which mostly mirrors the first proposal.

There is no reason why the PTO is taking so long to reduce the burdens on applicants by revising § 1.56. The Secretary should step in to ensure that the PTO promptly issues a final rule that repeals and replaces § 1.56.
QUESTION 2: How could regulatory compliance be simplified within your industry or sector?

ANSWER:

For the reasons explained above in connection with Question 1, the Secretary should take the following actions that would simplify regulatory compliance and alleviate regulatory burdens on small businesses and independent inventors:

• #1 – Do not adopt proposed rule PTO-P-2015-0056 (81 Fed. Reg. 68150), which would impose $710 million in direct added costs and potentially billions of dollars in indirect added costs.

• #2 – Repeal the PTO’s Subject Matter Eligibility Guidelines, which impose a bar to patent-eligibility that is more burdensome than required under the statute (35 U.S.C. § 101) and Supreme Court case law.

• #3 – Repeal 37 C.F.R. §§ 42.1-42.304, which has been disastrous for inventors whose patents are being repeatedly challenged in PTAB trials.

• #4 – Adopt PTO-P-2011-0030, 81 Fed. Reg. 74987 (Oct. 28, 2016), which would finally bring 37 C.F.R. § 1.56 into compliance with the 2011 Therasense decision and thereby reduce the burden on patent applicants who today must submit unnecessary information to the PTO.
QUESTION 3: Please provide any other specific recommendations, not addressed by the questions above, that you believe would help reduce unnecessary Federal agency regulation of your business.

ANSWER:

First, the Secretary should immediately and publicly announce that the PTO, as a bureau within the Commerce Department, is subject to President Trump’s “Two-In One-Out” executive orders (EO13771; EO13777), and that these orders apply to any fees that the PTO may “set or adjust by rule” under Section 10 of the Leahy-Smith America Invents Act. Unfortunately, recent media reports have noted that the PTO is “bucking” President Trump’s executive orders by incorrectly arguing that these orders don’t apply to the PTO or its fee rules. See, e.g., Politico, Mar. 10, 2017 (reporting that Rep. Collins’ (R-GA) office has “concerns that [Obama PTO holdover Michelle K.] Lee may be bucking guidelines from President Trump on reducing the number of regulations introduced by federal agencies”); IPWatchdog.com, Mar. 8, 2017, USPTO Breaks President Trump’s ‘One-In Two-Out’ Executive Order.

Second, the Secretary should require the PTO to require a separate “elasticity analysis” for small businesses when assessing the impact of regulatory burdens, given that small businesses are far more likely to stop innovating (or even continuing to exist) than large businesses when presented with the identical burden. As US Inventor has previously explained (see attached Exhibit at pages A4-A5), empirical evidence shows that loss of a patent causes (1) firms to reduce innovation by about 50 percent—an effect the authors found was “driven entirely by small firms”—and (2) increases the probability of exit for small (but not large) firms. See Alberto Galasso & Mark Schankerman, Patent Rights, Innovation and Firm Exit, National Bureau of Economic Research, NBER Working Paper 21769 (Dec. 2015). Despite this clear evidence of unequal elasticity between small and large firms, the PTO treats small businesses the same as large businesses in terms of the impact of regulatory burdens. (See Exhibit at pages A4-A5.) The Secretary should require the PTO to conduct a separate “elasticity analysis” for small businesses when assessing the impact of proposed rules.

Third, the Secretary should require the PTO to calculate the cost of proposed regulations on the U.S. economy as a whole—including (1) lost wages, (2) lost jobs, and (3) increased trade deficit. As US Inventor has previously explained (see attached Exhibit at pages A5-A9), regulations that make it more difficult to obtain and enforce U.S. intellectual property rights have a negative impact on each of those three economic factors. First, wages are strongly correlated with patents. The Federal Reserve Bank of Cleveland has calculated that patents are the single largest factor in predicting a community’s relative income. (See Exhibit a page A6.) The Brookings Institute found that “[i]f the metro areas in the lowest quartile patented as much as those in the top quartile, they would boost their economic growth by . . . an extra $4,300 per worker.” (Id.) The Commerce Department found
that “workers in IP-intensive industries earned an average weekly wage of $1,312,” which is “46 percent higher than the $896 average weekly wages in non-IP-intensive industries in the private sector.” (Id.) Second, jobs are strongly correlated with patents. The Commerce Department found that “IP-intensive industries” (including patent-intensive industries) directly or indirectly supported 45.5 million jobs, about 30 percent of all employment in the United States. (Id. at A6-A7.) Third, the U.S. trade deficit increases when fewer U.S. companies received payments from foreigners in exchange for a license to the U.S. intellectual property. Indeed, “charges for the use of intellectual property” is a category of international trade that gives the United States a trade surplus of over $85 billion in IP royalties and license fees. (Id. at A7-A8.) But this surplus diminishes, and the overall U.S. trade deficit of $500 billion widens, when fewer U.S. companies apply for and maintain U.S. patents and other intellectual property rights, and when foreign companies are less willing to pay for a license because of a perception that U.S. patents can be avoided or invalidated. (Id. at A8.) Therefore, the Secretary should require the PTO to separately analyze, for each proposed rule, the impact on (1) wages, (2) jobs, and (3) trade deficit.

* * *

Respectfully submitted,

U.S. INVENTOR
February 10, 2017

Dominic J. Mancini  
Acting Administrator  
Office of Information and Regulatory Affairs  
Office of Management and Budget  

Via email: reducingregulation@omb.eop.gov


Dear Acting Administrator Mancini:


_US Inventor_ offers the following four recommendations for OMB in administering Section 2 of the Executive Order of January 30, 2017.

First, OMB should mandate that the Office of the Federal Register correctly identify and tag, in the Federal Register’s “advanced search” public database, all proposed rules that either OMB or the authoring agency has “deemed significant under EO 12866,” as a necessary condition before the rule can go into effect. _US Inventor_ has identified at least one proposed rule authored by the U.S. Patent & Trademark Office (“USPTO”) in the waning days of the Obama Administration where the USPTO itself admitted in the proposed rule that the rule was “significant for purposes of Executive Order 12866,” but the public could not locate this rule on the Federal Register website using the search filter for E012866 significant rules. (see attached Exhibit at pages A3-A4). Despite raising this omission in _US Inventor’s_ comments filed last month, the Federal Register website still, to this day, does not identify that rule as being significant under E012866. Why has the Office of the Federal Register failed to tag this rule as significant? How many more significant rules have been published in the Federal Register that similarly were not tagged as significant? This omission raises serious transparency concerns because, other than reading the full text of every single rule, the public has no way to obtain a complete list of all E012866 significant rules. To remedy this problem, OMB should place the onus on the authoring agency to monitor and follow up with the...
Federal Register Office to ensure that all EO12866 significant rules can be located on the Federal Register “advanced search” public database using the EO12866 search filter.

Second, OMB should require a separate “elasticity analysis” for small businesses when assessing the impact of regulatory burdens, given that small businesses are far more likely to stop innovating (or even continuing to exist) than large businesses when presented with the identical burden. As US Inventor has previously explained (see attached Exhibit at pages A4-A5), empirical evidence shows that loss of a patent causes (1) firms to reduce innovation by about 50 percent—an effect the authors found was “driven entirely by small firms”—and (2) increases the probability of exit for small (but not large) firms.” See Alberto Galasso & Mark Schankerman, Patent Rights, Innovation and Firm Exit, National Bureau of Economic Research, NBER Working Paper 21769 (Dec. 2015). Despite this clear evidence of unequal elasticity between small and large firms, the USPTO treats small businesses the same as large businesses in terms of the impact of regulatory burdens. (See Exhibit at pages A4-A5.) OMB should require all agencies to conduct a separate “elasticity analysis” for small businesses when assessing the impact of proposed rules.

Third, OMB should require all agencies to calculate the cost of proposed regulations on the U.S. economy as a whole—including (1) lost wages, (2) lost jobs, and (3) increased trade deficit. As US Inventor has previously explained (see attached Exhibit at pages A5-A9), regulations that make it more difficult to obtain and enforce U.S. intellectual property rights have a negative impact on each of those three economic factors. First, wages are strongly correlated with patents. The Federal Reserve Bank of Cleveland has calculated that patents are the single largest factor in predicting a community’s relative income. (See Exhibit a page A6.) The Brookings Institute found that “[i]f the metro areas in the lowest quartile patented as much as those in the top quartile, they would boost their economic growth by . . . an extra $4,300 per worker.” (Id.) The Commerce Department found that “workers in IP-intensive industries earned an average weekly wage of $1,312,” which is “46 percent higher than the $896 average weekly wages in non-IP-intensive industries in the private sector.” (Id.) Second, jobs are strongly correlated with patents. The Commerce Department found that “IP-intensive industries” (including patent-intensive industries) directly or indirectly supported 45.5 million jobs, about 30 percent of all employment in the United States. (Id. at A6-A7.) Third, the U.S. trade deficit increases when fewer U.S. companies received payments from foreigners in exchange for a license to the U.S. intellectual property. Indeed, “charges for the use of intellectual property” is a category of international trade that gives the United States a trade surplus of over $85 billion in IP royalties and license fees. (Id. at A7-A8.) But, that surplus diminishes—and
the overall U.S. trade deficit of $500 billion widens—when fewer U.S. companies apply for and maintain U.S. patents and other intellectual property rights, and when foreign companies are less willing to pay for a license because of a perception that U.S. patents can be avoided or invalidated. (Id. at A8.) Therefore, OMB should require that all agencies separately analyze for each proposed rule the impact on (1) wages, (2) jobs, and (3) trade deficit.

Fourth, OMB should place a hold on PTO-P-2015-0056 and require the USPTO to conduct a new cost-benefit analysis, in a new notice of proposed rulemaking, consistent with the Interim Guidance and these comments. The proposed rule in PTO-P-2015-0056 (81 Fed. Reg. 68150) is a “significant” rule under EO12866 because the USPTO itself admits that the rule would result in $710 million in direct added costs. (See Exhibit at A11.) But that number ignores the huge indirect added costs on the U.S. economy as a whole, and to small businesses in particular, including lost wages, lost jobs, and increased trade deficits. Therefore, OMB should require the USPTO to recalculate the regulatory costs of PTO-P-2015-0056 to specifically account for the impact on small businesses and the U.S. economy as a whole, and to publish this analysis in a new notice of proposed rulemaking for public comment.

* * *

About US Inventor

US Inventor is a non-profit association of inventors devoted to protecting the intellectual property of individuals and small companies through education, advocacy, and reform. Believing that the interests of large corporations are disproportionately overrepresented in the current discussions regarding patent reform, US Inventor aims to encourage dialogue between lawmakers, inventors, and other patent stakeholders concerning the effects of past and proposed patent reform legislation and federal court decisions on the patent rights of small businesses and sole inventors. US Inventor strongly believes that everyone can build the next best mousetrap. US Inventor's vision is to help teach people that process as well as defend that ability on Capitol Hill. US Inventor brings together the best and brightest innovators of today to help the best and brightest innovators of tomorrow. We teach, promote, and defend the invention process and business methods involved in taking an idea, making a profit, and changing lives.

* * *

Respectfully submitted,

U.S. INVENTOR
December 2, 2016

The Honorable Michelle K. Lee  
Under Secretary of Commerce for Intellectual Property and  
Director of U.S. Patent and Trademark Office  
U.S. Patent and Trademark Office 600  
Dulany Street  
Alexandria, VA 22314 Attn:

Brendan Hourigan

Via email: fee.setting@uspto.gov


Dear Director Lee:


About US Inventor

US Inventor is a non-profit association of inventors devoted to protecting the intellectual property of individuals and small companies through education, advocacy, and reform. Believing that the interests of large corporations are disproportionately overrepresented in the current discussions regarding patent reform, US Inventor aims to encourage dialogue between lawmakers, inventors, and other patent stakeholders concerning the effects of past and proposed patent reform legislation and federal court decisions on the patent rights of small businesses and sole inventors. US Inventor strongly believes that everyone can build the next best mousetrap. US Inventor’s vision is to help teach people that process as well as defend that ability on Capitol Hill. US Inventor brings together the best and brightest innovators of today to help the best and brightest innovators of tomorrow. We teach, promote, and defend the invention process and business methods involved in taking an idea, making a profit, and changing lives.
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I PTO Admits The Proposed Rule Is “Significant” Under EO12866, The Office Of The Federal Register Did Not “Earmark It As Such”

At the outset, the Proposed Rule raises transparency and procedural concerns. Although the PTO admits “[t]his rulemaking has been determined to be significant for purposes of Executive Order 12866 (Sept. 30, 1993)” (81 FR at 68179), the public cannot find this rule on the Office of the Federal Register’s website by searching for proposed rules deemed significant under Executive Order 12866. Below is a screen shot taken today when visiting the Office of the Federal Register’s website and applying the search filters (1) proposed rule, (2) deemed significant under EO 12866, and (3) Patent and Trademark Office:

![Screen Shot](https://www.federalregister.gov/documents/search#advanced)

As shown above, the search results (with newest on top) do not include the Proposed Rule, *Setting and Adjusting Patent Fees During Fiscal Year 2017*, published on October 3, 2016. Instead, the most recent rule on the list is dated almost *two year ago*—January 24, 2014.

The omission of the Proposed Rule from the list of “significant” rules is problematic because it makes it more likely that the Proposed Rule will escape public scrutiny. The Office of the Federal Register's website is the primary means for the public to search and identify pending rules that have been deemed significant. To inquire about this issue, US Inventor contacted the Office of Management & Budget (“OMB”) desk officer responsible of PTO oversight, Ms. Kimberly Keravuori. In response to our inquiry, Ms. Keravuori stated that she was in fact aware that the Proposed Rule is “significant” under Executive Order 12866 but acknowledged that the Office of Federal Register *did not “earmark it as such.”*

Members of the pubic, as well as members of the Trump-Pence Transition Team, are not able to locate the Proposed Rule by performing a search on the Office of the Federal Register's website for pending rules deemed “significant.” This omission raises immediate questions: *Why was the Propose Rule not earmarked as significant? And how many more rules are currently pending across the various agencies that similarly have not been earmarked as significant?*

### I PTO’s Elasticity Analysis Fails To Consider Small And Independent Inventors, Who Are Less Able To Afford The PTO’s Increased Fees

To estimate the impact of the Proposed Rule, the PTO conducted an “elasticity analysis” to predict applicant behavior as a result of the proposed increased fees. See PTO-P-2015-0056-0006. However, nowhere in the elasticity analysis does the PTO consider small businesses and independent inventors, who naturally are less able to pay the PTO’s increased fees. In fact, the words “small business” or “medium-size” or “SME” or “independent inventor” are *not even mentioned* in the PTO’s elasticity analysis! Rather, the elasticity analysis treats all applicants like large multi-national corporations, or at least subsumes small and independent inventors within the aggregate mass up of mostly large corporations that make up the PTO’s customer base.

By failing to separately analyze small business and independent inventors from the rest of crowd, the PTO turns its back on the little guy. If the PTO had conducted a separate elasticity analysis for small business and independent inventors, then the PTO would have found that these small applicants are far more sensitive to price increases than the large entities.
This point is supported by the work of economists Alberto Galasso and Mark Schankerman, which showed that small firms are far more likely to stop patenting altogether than large firms when faced with the identical set of challenges. See Alberto Galasso & Mark Schankerman, Patent Rights, Innovation and Firm Exit, National Bureau of Economic Research, NBER Working Paper 21769 (Dec. 2015). Looking at the effect of judicial invalidation of specific patents, the authors found that the loss of a patent causes the owner to reduce patent activity by about 0 percent—an effect the authors found was “driven entirely by small firms.” Id. at 25. Even more striking is their finding that “the loss of patent rights ... sharply increases the probability of exit for small (but not large) firms.” Id. at 25. Thus, large firms are able to weather the storm and continue patenting in the face of adversity, while small firms simply give up.

The PTO compounds this error in its Regulatory Impact Analysis (PTO-P-2015-0056-0002). There, the PTO entirely downplays the elasticity issue, stating that “[l]egal fees, research and development (more expensive in some industries than in others), licensing and royalties (where applicable), marketing, and production are all elements of the commercialization process in addition to patent fees,” and therefore, “patent fees are a proportionately small expense.” But of course, these non-patent operational expenses are things that large corporations enjoy, because they own more than just an idea and the shirt on their back. Instead, early-stage startups and independent inventors typically do not spend much money on marketing and production, and their legal fees for patent prosecution are often in the form of equity arrangements, or pro se or pro bono representations. The PTO should know this because it prides itself on its Patent Pro Bono Program.2

Therefore, the PTO’s statement in the Regulatory Impact Analysis that “patent fees are a proportionately small expense” is only true for large companies and is certainly not true for small businesses and independent inventors.

I PTO Ignores The Societal And Macroeconomic Costs Of The Proposed Rule When Fewer U.S. Inventors Obtain Patent Protection

The PTO is very willing to attribute a host of indirect societal benefits to the Proposed Rule (e.g., enhancing examination quality, reducing backlog and pendency, improving the IT infrastructure, building a viable operating reserve). But the PTO strictly limits consideration of the costs of the Proposed Rule to the increased fees themselves, without attempting to calculate the knock-on effects on

2 https://www.uspto.gov/patents-getting-started/using-legal-services/pro-bono/patent-pro-bono-program ("The Program provides free legal assistance to under-resourced inventors interested in securing patent protection for their inventions.").

Because not all applicants and patent owners will be willing and able to pay the PTO’s increased fees, the Proposed Rule will result in (1) fewer patent applications being filed, (2) fewer patent applications being prosecuted to allowance, and (3) fewer patents being maintained through each maintenance-fee payment milestone. This overall decrease in patenting in the United States will have a significant negative impact on the U.S. economy as a whole—including lost wages, lost jobs, and an increased trade deficit, as explained below.

A. Lost Wages

The Federal Reserve Bank of Cleveland has calculated that patents are the single largest factor in predicting a community’s relative income, more than education, infrastructure, or industry specialization. See Federal Reserve Bank Of Cleveland, 2005 Annual Report, at 17. Similarly, a study by the Brookings Institute found that “[i]f the metro areas in the lowest quartile patented as much as those in the top quartile, they would boost their economic growth by . . . an extra $4,300 per worker.” Jonathan Rothwell et al., Patenting RSVP Invention And Economic Performance In The United States And Its Metropolitan Areas, Brookings Institute at 15 (Feb. 2013). The U.S. Department of Commerce has found that “[p]rivate wage and salary workers in IP-intensive industries continue to earn significantly more than those in non-IP-intensive industries”; specifically, “workers in IP-intensive industries earned an average weekly wage of $1,312” which is “46 percent higher than the $896 average weekly wages in non-IP-intensive industries in the private sector.” U.S. Dep’t Commerce, Intellectual Property And The U.S. Economy: 2016 Update at ii.

As the above studies demonstrate, patents and wages are strongly correlated. The PTO’s Regulatory Impact Analysis, however, fails to consider, much less calculate, how much Americans’ wages will fall as a result of fewer patents being applied for, fewer applications being prosecuted to allowance, and fewer patents being maintained.

B. Lost Jobs

The Department of Commerce has calculated that “IP-intensive industries” (including patent-intensive industries) directly or indirectly supported 45.5 million jobs, about 30 percent of all employment in the United States. See U.S. Dep’t Commerce, Intellectual Property And The U.S. Economy: 2016 Update at ii. The report finds that “[p]atent- and copyright-intensive industries have seen
particularly fast wage growth in recent years, with the wage premium reaching 74 percent and 90 percent, respectively, in 2014.” Id. Likewise, the U.S. International Trade Commission has correlated the impact of the strength of a country’s IP laws on U.S. jobs. See U.S. INT’L TRADE COMM’N, CHINA: EFFECTS OF INTELLECTUAL PROPERTY INFRINGEMENT AND INDIGENOUS INNOVATION POLICIES ON THE U.S. ECONOMY, USITC Pub. No. 4226 (May 2011) at xx (calculating that “if IPR protection in China improved substantially, U.S. employment could increase by 2.1 million FTEs (full-time equivalent workers)”). Moreover, Stanford Professor Stephen Haber recently surveyed “an array of studies employing econometric methods in an attempt to discern causal relationships between patent strength and economic growth” and “concludes that the weight of the evidence supports the claim of a positive causal relationship between the strength of patent rights and innovation—and thus, economic growth.” Stephen Haber, Patents and the Wealth of Nations, 23 GEO. MASON L. REV. 811, 812 (2016).

As the above studies demonstrate, patents and jobs are strongly correlated. The PTO’s Regulatory Impact Analysis, however, fails to consider, much less calculate, how many American jobs will be lost in the future as a result of fewer patents being applied for, fewer applications prosecuted to allowance, and fewer patents being maintained—each as a result of the Proposed Rules.

C. Increased Trade Deficit

According to the Commerce Department, the United States’ trade deficit last year was over $500 billion. Of all the categories of goods and services that the Commerce Department tracks, one of the few bright spots where the United States has a significant trade surplus is in “charges for the use of intellectual property.” U.S. CENSUS BUREAU, BUREAU OF ECONOMIC ANALYSIS, U.S. INTERNATIONAL TRADE IN GOODS AND SERVICES (Oct. 5, 2016). As shown in the table below, U.S. companies receive over $124 billion in IP royalties and license fees from foreigners, while paying foreigners less than $40 billion—giving the United States a trade surplus of over $85 billion in IP royalties and license fees.

| United States Exports and Imports by Product and Service Category in 2015 (in millions USD) |
|-----------------------------------------------|-----------------|-----------------|-----------------|
| GOODS                                         | Exports         | Imports         | Net             |
| Foods, Feeds, & Beverages                     | 1,510,303       | 2,272,868       | 762,565         |
| Industrial Supplies                           | 7,727           | 127,818         | 1               |
| Capital Goods                                 | 5,984           | 485,775         | 9,791           |
| Automotive Vehicles                           | 9,438           | 602,023         | 2,585           |
| Consumer Goods                                | 1,917           | 349,166         | 97,249          |

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The U.S. trade advantage in IP licensing will suffer, however, if fewer U.S. companies apply for and maintain U.S. patents. Foregone patenting by American inventors who cannot afford the PTO’s higher fees will mean that fewer U.S. patents will exist in the future to be licensed. At the same time, the trend seen today in foreign patent offices (see chart below) with ever-more patents being applied for and granted in foreign patent offices than in the United States, means that a growing number of valuable patents will be issued in foreign patent offices and owned by foreign companies. The net effect of these changes will likely be that Americans will need to buy more patent licenses from foreigners, while foreigners buy fewer patent licenses from Americans—thereby, decreasing the U.S. trade advantage in IP licensing and increasing the overall U.S. trade deficit.
The PTO’s Regulatory Impact Analysis fails to consider, much less calculate, the extent to which America’s trade advantage in IP licensing will suffer as a result of fewer patents applied for, fewer applications prosecuted to allowance, and fewer patents maintained—each as a result of the Proposed Rules.

V RCE Fee Increases Are Punitive and Bad Policy, Especially In Today’s Uncertain Alice/Mayo Environment

US Inventor agrees with the concerns expressed by the Public Patent Advisory Committee (“PPAC”) that:

The high RCE fees seem to be as a means of trying to discourage applicants from stringing out prosecution with “unnecessary” RCEs. However, the widespread perception in the applicant community is that RCEs are a necessity rather than a choice given inefficiencies in the examination process and the current system in the USPTO that incentivize the Examiner to push for the filing of an RCE.

PPAC Fee Setting Report (Feb. 29, 2016), at p. 3.

US Inventor would take PPAC's concerns even further by noting that RCEs have become an absolute necessity in the wake of the Alice/Mayo decisions that
lefts applicants in a sea of uncertainty in Section 101 patent-eligibility jurisprudence. The lower courts struggle to apply Alice/Mayo. And each month the Federal Circuit issues a new decision that finds some claims patent-eligible that previously would not have been eligible under the PTO’s Section 101 Guidelines. In this way, RCEs are a lifeline which allows an applicant to wait out the storm a bit longer in the hopes that calmer waters will arrive, allowing the applicant to overturn an examiner’s final rejection in light of a new, more favorable court decision. RCEs should be encouraged for this purpose. Even the PTO acknowledges the current turbulence when it issues new examination memos each time the Federal Circuit renders significant new decisions involving Section 101. See, e.g., ROBERT W. BAHR, MEMO ON RECENT SUBJECT MATTER ELIGIBILITY DECISIONS (Nov. 2, 2016) (discussing new cases that “provide additional information about finding eligibility for software claims”).

Rather than incentivize RCEs as a lifeline for applicants, however, the Proposed Rule would cut off that lifeline for applicants (mostly small business and independent inventors) who are unable or unwilling to pay the higher RCE fees. While large businesses may be willing to pay more money to wait out the storm, small businesses and independent inventors will be lost at sea—abandoning their patent applications after a final rejection rather than filing a costly first, second, or third RCE.

The PTO should undertake a new policy analysis regarding RCE fees in light of the current Alice/Mayo uncertainty. The PTO should exercise its Section 10 fee-setting authority to incentivize rather than deter the filing of RCEs so that applicants can await greater certainty from the courts or Congress regarding Section 101 subject-matter eligibility.

V. A New NPRM Should Be Issued For This Rule By The Next Administration, Given That The Rule Is “Significant” Under EO12866 And Raises Important Policy-Making Considerations

President-elect Trump’s website pledges to “Issue a temporary moratorium on new agency regulations that are not compelled by Congress or public safety.” The Proposed Rule meets that definition.

Similarly, President-elect Trump’s website pledges to “Ask all Department heads to submit a list of every wasteful and unnecessary regulation which kills jobs, and

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which does not improve public safety, and eliminate them.” 4 As explained throughout these comments, the Proposed Rule meets that definition as well.

In the Proposed Rule, the PTO estimates that the increased fees will result in $710 million in additional fees paid by the patent community in the next five years. See 81 Fed. Reg. at 68174. Because the cost of the Proposed Rule exceeds $100 million annually, the PTO admits that the “[t]his rulemaking has been determined to be significant for purposes of Executive Order 12866.” 81 Fed. Reg. at 68179. As such, the Proposed Rule requires that a detailed cost-benefit analysis be conducted by the agency and approved by the Office of Information and Regulatory Affairs (“OIRA”).

The next Administration may have different views on how an EO12866 analysis should be conducted, especially in the way that regulations’ private-sector and societal burdens are calculated. Similarly, the next Administration may wish to undertake its own policy-making analysis in connection with the fee-setting power available to it under Section 10 of the AIA. The PTO has interpreted Section 10 of the AIA as giving the PTO Director the discretion to set or adjust fees so as to “encourage or discourage any particular [patent or trademark] service” that the PTO provides. See Bernard J. Knight, Jr., Memo on USPTO Fee Setting (Feb. 10, 2012). In this regard, the next Administration may have different views on what services it wants to “encourage or discourage.” Therefore, given the importance of this policy-making function, the next Administration may want to wait for a new Director to be confirmed before going forward with the Proposed Rule or any other Section 10 fee-setting proposal.

*   *   *

In conclusion, given the concerns raised throughout these comments, US Inventor respectfully submits that the costs of the Proposed Rule should be recalculated to specifically reflect the impact on small businesses and independent inventors and the U.S. economy as a whole, and that the PTO should publish a new Notice of Proposed Rulemaking for public comment.

Respectfully submitted,

US Inventor