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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

Subject: Comments on the Notice of Proposed Rulemaking, Docket No. PTO-P-2015-0056, *Setting and Adjusting Patent Fees During Fiscal Year 2017*, 81 Fed. Reg. 68150 (Oct. 3, 2016)

Dear Director Lee:

US Inventor respectfully submits these comments on the notice of proposed rulemaking that was published in the Federal Register under Docket No. PTO-P-2015-0056, *Setting and Adjusting Patent Fees During Fiscal Year 2017*, 81 Fed. Reg. 68150 (Oct. 3, 2016) (hereinafter “Proposed Rule”).

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, But 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 website¹ 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:

The screenshot shows a search results page with the following filters applied:

- Type: Proposed Rule
- Significance: Associated Unified Agenda Deemed Significant Under EO 12866
- Agency: Patent and Trademark Office

Search results summary: DOCUMENTS FOUND 20. Sorting options: RELEVANT, NEWEST (selected), OLDEST.

Three results are visible:

- Changes To Require Identification of Attributable Owner**
by the Patent and Trademark Office on 01/24/2014.
The United States Patent and Trademark Office (Office) is proposing changes to the rules of practice to facilitate the examination of patent applications and to provide greater transparency concerning the ownership of patent applications and patents. This initiative is one of a number of executive actions issued by the Administration that are...
- Setting and Adjusting Patent Fees**
by the Patent and Trademark Office on 09/06/2012.
The United States Patent and Trademark Office (Office or USPTO) proposes to set or adjust patent fees as authorized by the Leahy-Smith America Invents Act (Act or AIA). The proposed fees will provide the Office with a sufficient amount of aggregate revenue to recover its aggregate cost of patent operations, while helping the Office implement a...
- CPI Adjustment of Patent Fees for Fiscal Year 2013**
by the Patent and Trademark Office on 05/14/2012.
The United States Patent and Trademark Office (Office) is proposing to adjust certain patent fee amounts for fiscal year 2013 to reflect fluctuations in the Consumer Price Index (CPI). The patent statute provides for the annual CPI adjustment of patent fees set by statute to recover the higher costs associated with doing business as reflected by...

¹ <https://www.federalregister.gov/documents/search#advanced> (last visited Dec. 2, 2016).



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 public, 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 Proposed 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?***

II. 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 50 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 26. 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.

III. 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.”).



the broader American economy. See Regulatory Impact Analysis, PTO-P-2015-0056-0002, at pp. 32-33.

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 PROSPERITY: 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. DEPT' 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. DEPT' 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.

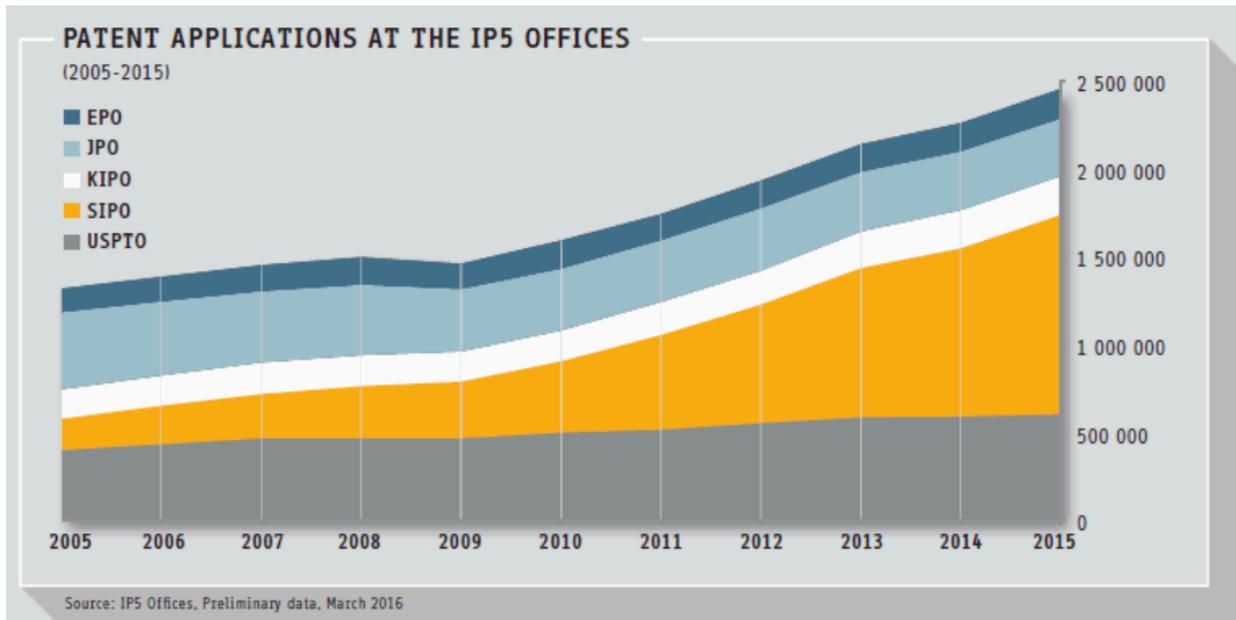
**United States Exports and Imports
by Product and Service Category in 2015 (in millions USD)**

	Exports	Imports	Net
GOODS	1,510,303	2,272,868	-762,565
Foods, Feeds, & Beverages	127,727	127,818	-91
Industrial Supplies	425,984	485,775	-59,791
Capital Goods	539,438	602,023	-62,585
Automotive Vehicles	151,917	349,166	-197,249
Consumer Goods	197,714	594,301	-396,587



Other Goods	59,792	89,150	-29,358
SERVICES	750,860	488,657	262,203
Maintenance and Repair	24,036	8,996	15,040
Transport	87,221	97,050	-9,829
Travel	204,523	112,873	91,650
Insurance	17,142	47,772	-30,630
Financial	102,461	25,162	77,299
<i>Charges for the Use of Intellectual</i>	<i>124,664</i>	<i>39,495</i>	<i>85,169</i>
Telecoms, Computer, and Information	35,895	36,440	-545
Other Business Services	134,648	99,354	35,294
Government Goods and Services	20,270	21,515	-1,245
TOTAL (GOODS AND SERVICES)			-500,362
http://www.bea.gov/newsreleases/international/trade/2016/pdf/trad0816.pdf			

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.***



(Source: IP5 Offices, <http://www.fiveipoffices.org/statistics.html>)

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.

IV. 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 have



leaves applicants in a sea of uncertainty in Section 101 patent-eligibility jurisprudence. The lower courts struggle to apply *Alice/Mayo*. And each month or so 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."³ 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

³ <https://www.donaldjtrump.com/policies/regulations> (last visited Dec. 2, 2016).



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

⁴ *Id.*