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Patent Quality Chat Examination Time Analysis

April 11, 2017

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To send in questions or comments during the webinar, please email:

PatentQuality@uspto.gov

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Enhanced Patent Quality Initiative



High-quality patents enable certainty and clarity of rights, which fuels innovation and reduces needless litigation. To ensure we continue issuing high-quality patents well into the future, we established the **Enhanced Patent Quality Initiative (EPQI)**. We are strengthening work products, processes, services, and how we measure patent quality at all stages of the patent process.

Updates

- Tune into our next [Patent Quality Chat](#) webinar on Thursday, March 16, from 1 - 2 p.m. ET, on "Training for the Examination of High Quality Patents."
- See our new [Quality Metrics](#) approach categorizing into product, process and perception indicators.
- Sign up for an upcoming [Stakeholder Training on Examination Practice and Procedure](#) (STEPP) course in your area.

EPQI programs

You spoke; we listened. To advance our Initiative, we created **12 EPQI programs** based on feedback from internal and external stakeholders. These programs fall into four areas of concertation for enhancing overall patent quality.

Patent Quality Chat

Examination Time Analysis

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Examination Time and the Production System

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Examination Time Analysis: Why?

- *We will establish the optimal pendency and quality levels for both patents and trademarks that will enable us to operate efficiently and effectively in a steady-state maintenance mode, while considering the expectations of the IP community.* –**USPTO Strategic Plan 2014-2018**



Examination Time Analysis: Why now?

- Properly calibrated examination time is critical for establishing optimal pendency and quality levels
- Patent prosecution has substantially changed since goals were established. For example:
 - New technologies and increased technological complexity
 - Exponential growth of available prior art
 - Transition to the Cooperative Patent Classification (CPC)
 - Increased use of electronic tools
 - Changes in policy and legal interpretations



Examination Time Analysis: Why now? (cont.)

- Although modest adjustments have been made to examination time over the years, there has not been a comprehensive reevaluation of examination time since the current expectancies were established.
- Recent reports by oversight bodies such as the General Accounting Office and Office of the Inspector General have recommended that the USPTO reevaluate examination time.



The Patent Model

- Simulation tool that predicts pendency, workload and output
- Used to plan hiring and other factors to ensure that pendency goals are met and to project revenue and costs



The Patent Model (cont.)

Key Variables

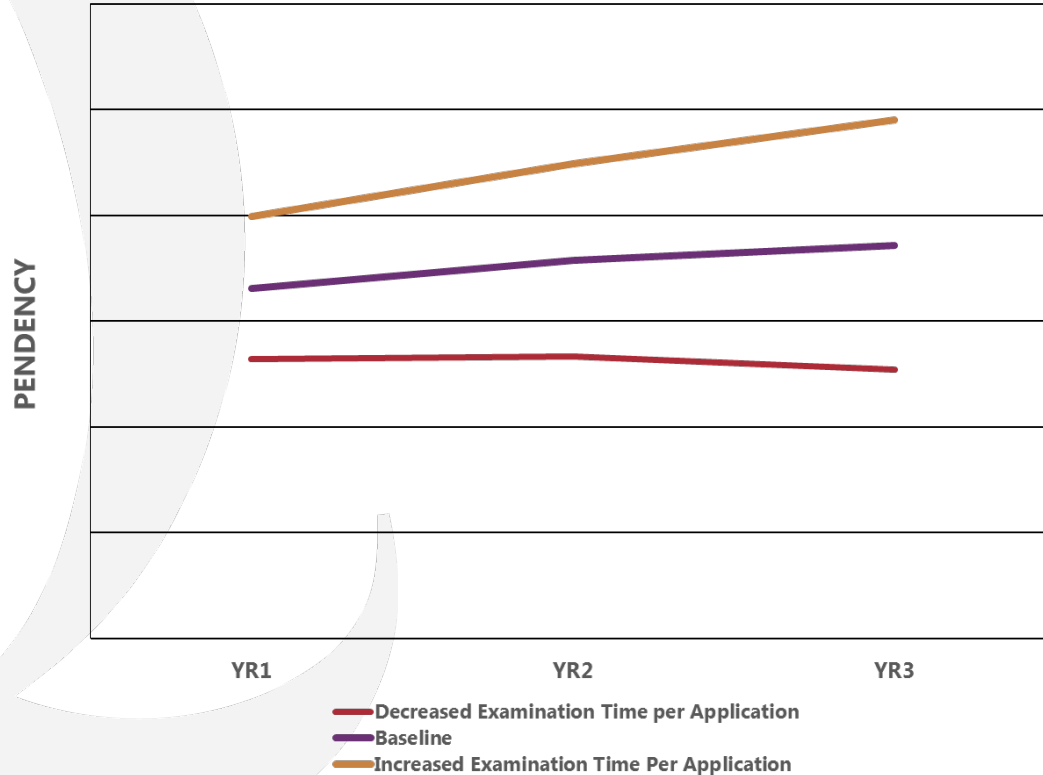
- Filings
- Examiner attrition
- Examiner hiring
- Overtime
- Examining Resource Investments
 - Quality investments such as examiner training time and additional examining time to support quality efforts

Predicted Outputs

- Future staffing levels
- Total production
- Application inventories
- Pendency



Impacts of Changing Examination Time



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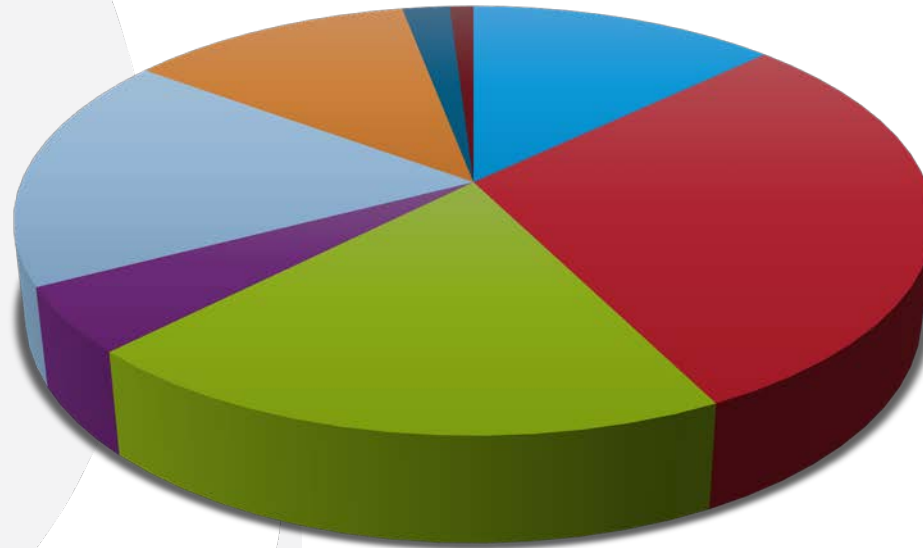
Examination Time Goals and Examiner Evaluation

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Patent Examination Activities



■ 1 ■ 2 ■ 3 ■ 4 ■ 5 ■ 6 ■ 7 ■ 8



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Examiner Performance Appraisal Plan

Examiner performance is rated on:

- **35% Productivity:** Number of Office actions/period of time
- **35% Quality:** Quality of those actions
- **20% Docket Management:** Completing those actions within expected timeframe
- **10% Stakeholder Interaction:** Internal and external contacts



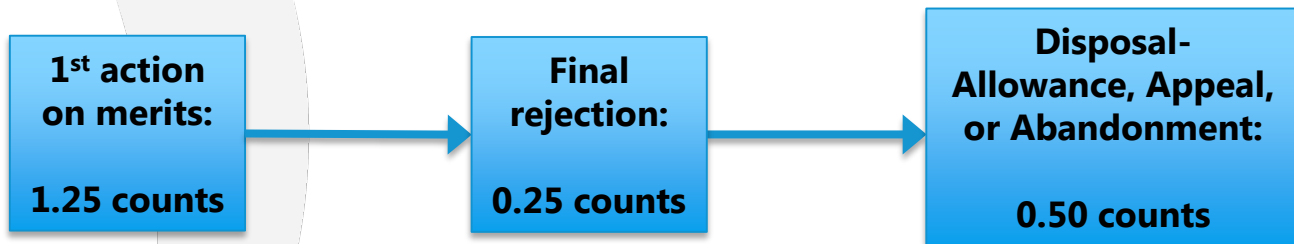
Production Goal Calculation: Expected Production Units for 100% of Goal

$$\frac{(\# \text{ of Examining Hours}) \times (\text{Seniority Factor})}{(\text{Technology Complexity})} = \text{Number of PUs* Needed for 100\% of Goal}$$

* "PU" is the abbreviation for a "Production Unit". A Production Unit is equal to 2 "counts".



Counts Awarded Throughout Prosecution



2.0 counts = 1 Production Unit (PU)



Production Goal Calculation: Examining Hours Affect the Examiner's Goal

$$\frac{(\# \text{ of Examining Hours}) \times (\text{Seniority Factor})}{(\text{Technology Complexity})} = \text{Number of PUs}^* \text{ Needed for 100\% of Goal}$$

* A "Production Unit" or "PU" equals 2 counts.



Production Goal Calculation: Examining Hours

Includes

- All major examination activities
 - Reviewing the application
 - Analyzing the claims
 - Searching the prior art
 - Considering prior art (including IDS)
 - Consulting with colleagues
 - Writing Office actions
 - Addressing applicant's responses
- Administrative activities (e.g., reading and responding to e-mail).

Excludes

- Leave and holidays
- Training
- Staff meetings
- Programs where examiners receive additional time (AFCP 2.0, QPIDS, etc.)



Production Goal Calculation: Technology Complexity Affects the Examiner's Goal

(# of Examining Hours) x (Seniority Factor)

(Technology Complexity)

=

***Number of PUs*
Needed
for 100% of Goal***

* A "Production Unit" or "PU" equals 2 counts.



Production Goal Calculation: Technology Complexity

- The **technology complexity** of an application designates a baseline amount of time per application. For example:



16.6 hours/PU
Fishing lures



25.9 hours/PU
Immunotherapy



27.7 hours/PU
Satellite communication



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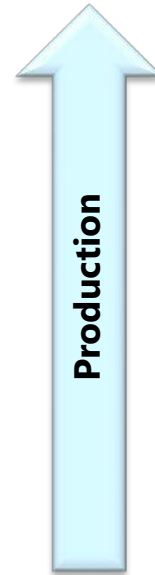
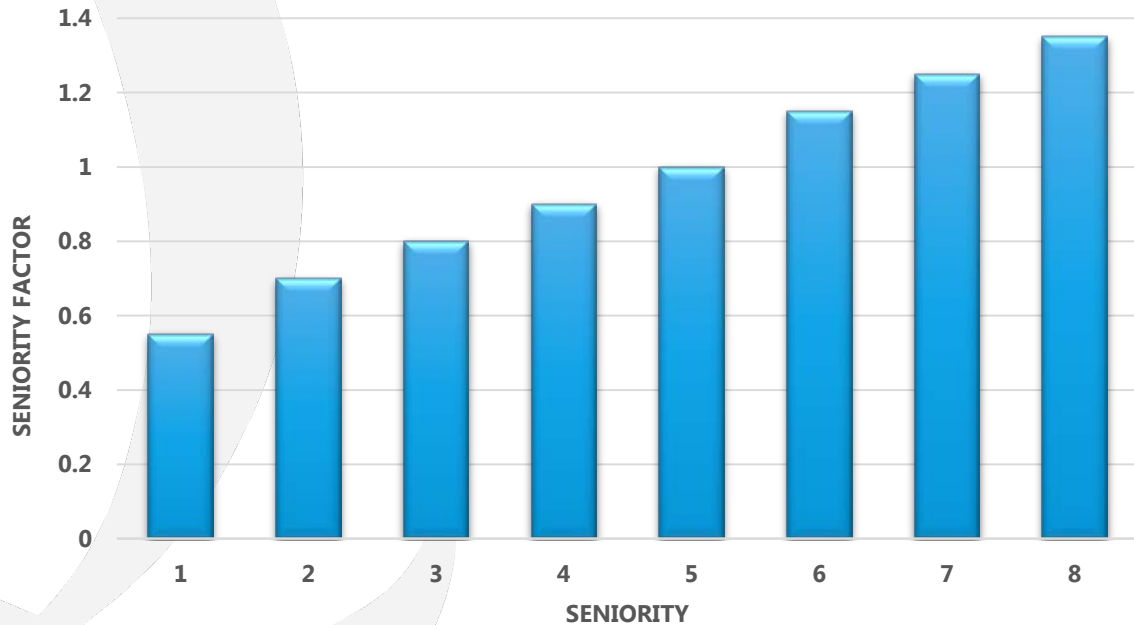
Production Goal Calculation: Seniority Factor Affects the Examiner's Goal

$$\frac{(\# \text{ of Examining Hours}) \times (\text{Seniority Factor})}{(\text{Technology Complexity})} = \text{Number of PUs* Needed for 100\% of Goal}$$

* A "Production Unit" or "PU" equals 2 counts.



Seniority Factor Adjustment



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Example of 100% Bi-Weekly Production Goal for GS-7, GS-12 and GS-14 Utility Examiners

All three examiners have the same number of examining hours (72) and examine in an area with the same Technology Complexity (16.6 hours/PU):

$$\text{GS-7: } \frac{72 \times 0.7}{16.6} = 3.0 \text{ PU} \times 2 = 6.0 \text{ counts (for 100\% production)}$$

$$\text{GS-12: } \frac{72 \times 1.0}{16.6} = 4.3 \text{ PU} \times 2 = 8.6 \text{ counts}$$

$$\text{GS-14: } \frac{72 \times 1.35}{16.6} = 5.9 \text{ PU} \times 2 = 11.8 \text{ counts}$$



Example of Bi-Weekly Production Goal Calculation

- The Technology Complexity for class 43 (Fishing, Trapping, and Vermin Destroying) is 16.6 hours per PU.
- A GS-14 examiner working in class 43 has 72 hours of examining time in a two week pay period.
- From the previous slide, we know that the examiner is required to complete **5.9 PUs (11.8 counts)** to achieve 100% of his goal.
- The examiner actually completes:

6 final rejections:	6 x 0.25 counts = 1.5 counts
4 allowances:	4 x 0.50 counts = 2.0 counts
6 first actions:	6 x 1.25 counts = 7.5 counts
2 advisory actions:	no counts
1 non-final 2 nd action:	no counts
<u>3 abandonments:</u>	<u>3 x 0.50 counts = 1.5 counts</u>
TOTAL:	12.5 counts (6.25 PUs)

- Finally, the examiner's achievement is calculated by dividing the actual PUs completed by the expected PUs:

$$6.25 \text{ actual PUs completed} / 5.9 \text{ PUs expected} = \mathbf{107\%}$$



Summary of Examination Time Goals

- The examiner production system is a complex arrangement of goals and incentives.
- The current base production expectancies were established nearly 40 years ago and there has not been a comprehensive reassessment of those expectancies since they were established.
- Production expectancies are integral to many aspects of patent operations including quality, pendency and cost.





Examination Time Analysis: External Stakeholder Outreach

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Examination Time Analysis: External Stakeholder Outreach

- [Federal Register Notice](#) published October 25, 2016 to solicit public feedback and announce roundtables.
- 4 roundtables were held in Alexandria and the USPTO regional offices in Dallas, Denver, and San Jose.
- Written comments:
 - 36 [emailed](#) (27 individuals, 6 companies, 3 IP Organizations)
 - 6 comments on [IdeaScale](#)



Examination Time Analysis External Outreach website:
<https://www.uspto.gov/patent/initiatives/eta-external-outreach>

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Question 1

- Do you perceive a difference in the quality of examination performed in complex technologies compared to less complex technologies?
 - If yes, which do you perceive as higher quality and why?
 - In what aspect(s) is the quality of examination higher?



Question 2

- What factors do you consider when estimating the amount of time needed to take various steps in prosecution, such as preparing responses to Office actions or preparing for interviews?
 - In particular, if you prosecute applications in a variety of technology areas, how do those factors vary among the technologies?



Question 3

- Are the applications you prosecute more or less complex than in the past, e.g., 10 years ago? What factors contribute to the increase or decrease in complexity?
- Do you believe the increase or decrease in complexity has affected the amount of time it takes to prosecute the applications? If so, by how much?
- Do you believe the increase or decrease in complexity has affected the quality of examination? If so, how?



Question 4

- In order to increase the quality of examination, do you believe that an increase in the time allotted for examination should be designated for specific activities, such as interviews, or left to the discretion of the examiner?
 - What activities would you prioritize and allocate more time to?



Question 5

- Are there any portions of Office actions which you feel do not add value or quality to the examination?
 - If yes, what are they?



Question 6

- What other activities beyond examining, such as research or training, could examiners spend time on that would add value?
 - Why do you believe these activities could add value?



Question 7

- While the focus of this request for comments and the roundtables is to find the appropriate amount of time for examination, cost and pendency are also contributing factors.
 - Do these factors raise a concern that should be considered?





Let's Chat about Examination Time Analysis

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Next Patent Quality Chat

eCommerce Modernization (eMod) Update

May 9, 2017

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Thank you for joining us today!

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April 11, 2017

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