



Patent Quality Program

San Marcos, Texas

Tuesday, February 21, 2017

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PATENT AND TRADEMARK OFFICE



Update on Patent Quality Programs



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Agenda

- Clarity of the Record Pilot
- Master Review Form
- Quality Metrics
- Topic Submission for Case Studies
- Stakeholder Training on Examination Practice and Procedure

Clarity of the Record Pilot



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Pilot Goals

Identify
Examiner
Best Practices

Find Correct
Balance for
Appropriate
Recordation

Use Data/
Feedback to
Assist Other
Programs

**Enhance
Clarity of
Prosecution
Record**

Areas of Focus

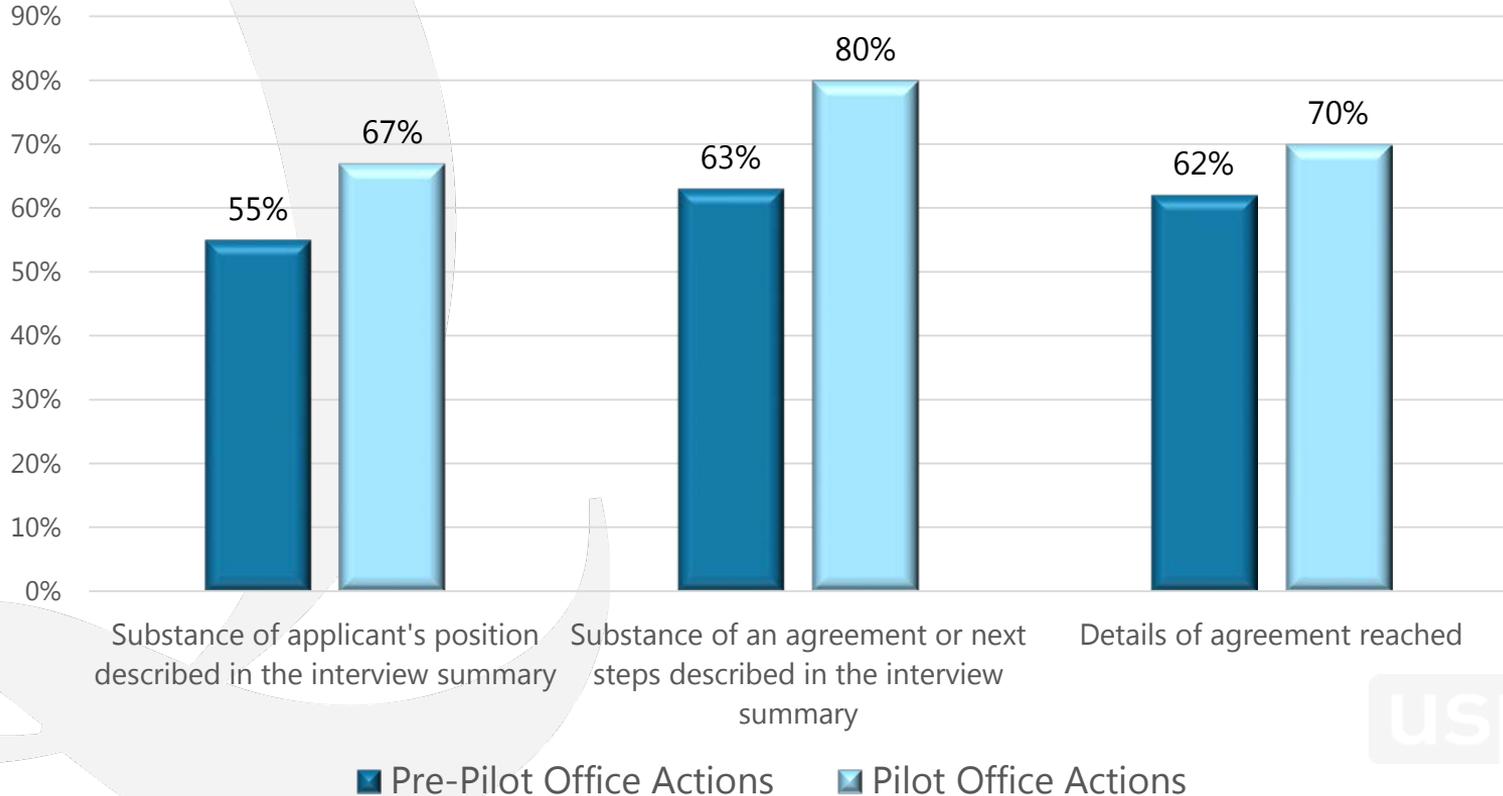
- More detailed interview summaries
- More precise reasons for allowance
- Pre-search interview – Examiner's option
- Enhanced documentation of 7 areas of claim interpretation:
 - **Special definitions of claim terms**
 - **Functional language**
 - **Intended use or result (preamble and body of claim)**
 - **"Means-plus-function" (35 U.S.C. §112(f))**
 - **Optional language**
 - **Non-functional descriptive material**
 - **Computer-implemented functions that invoke 35 U.S.C. §112(f) ("specialized" or "non-specialized")**

Pilot Evaluation

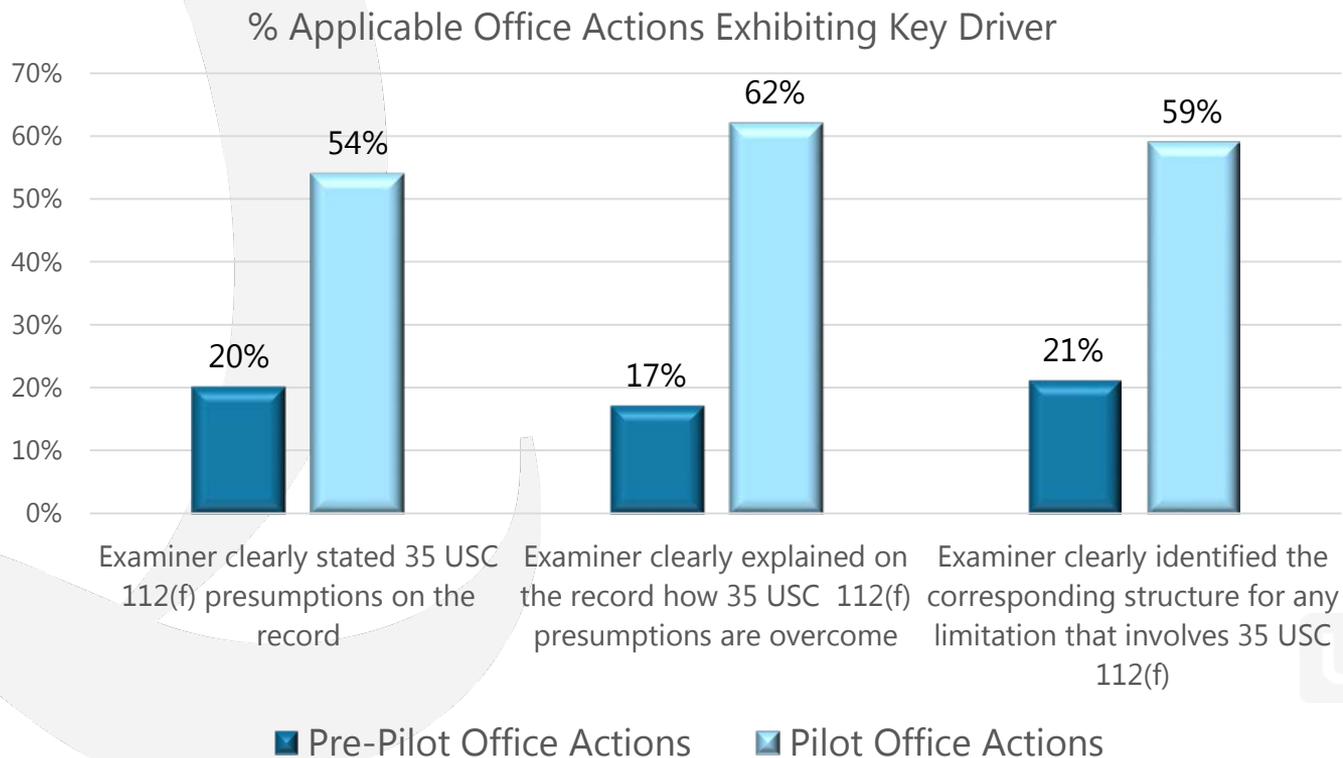
- Reviewed 2,600 Office actions, including a statistical mix of:
 - Pre-Pilot Office actions
 - Pilot Office actions
 - Control group
- Determined key drivers
- Gathered best practices

Interview Summaries

% of Applicable Office Actions Exhibiting Key Drivers

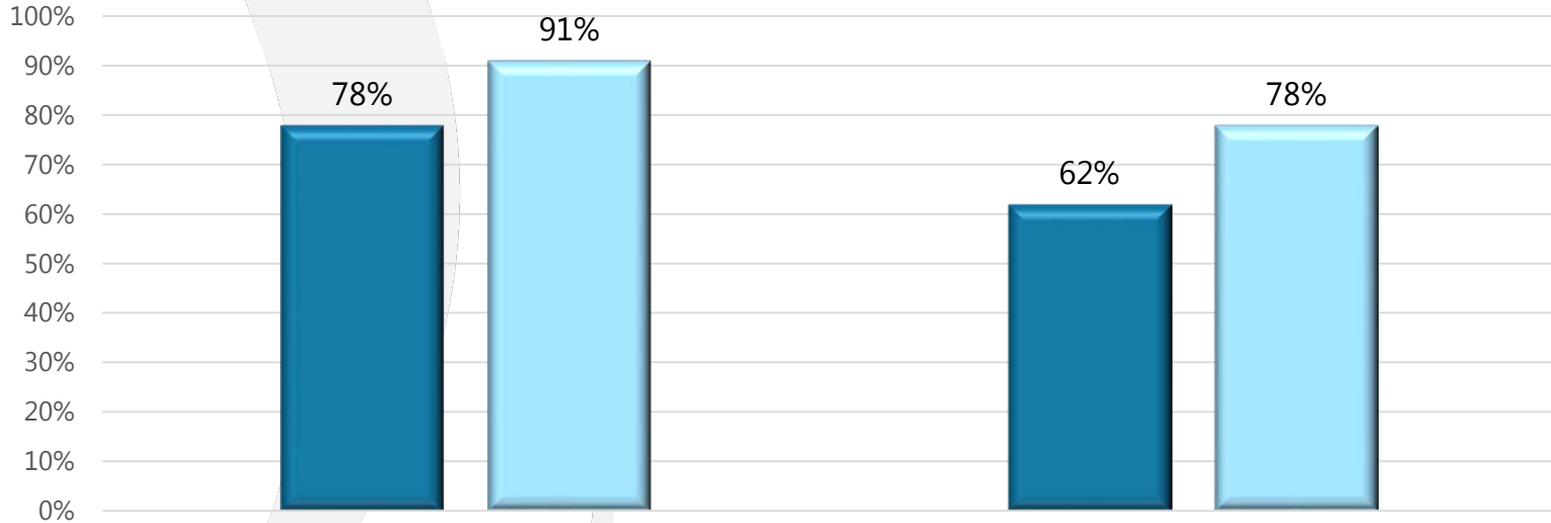


35 U.S.C. § 112(f) Presumptions



35 U.S.C. § 102 Rejections

% Applicable Office Actions Exhibiting Key Driver



When claims were grouped for purpose of rejection, all claim limitations from all grouped claims were clearly addressed

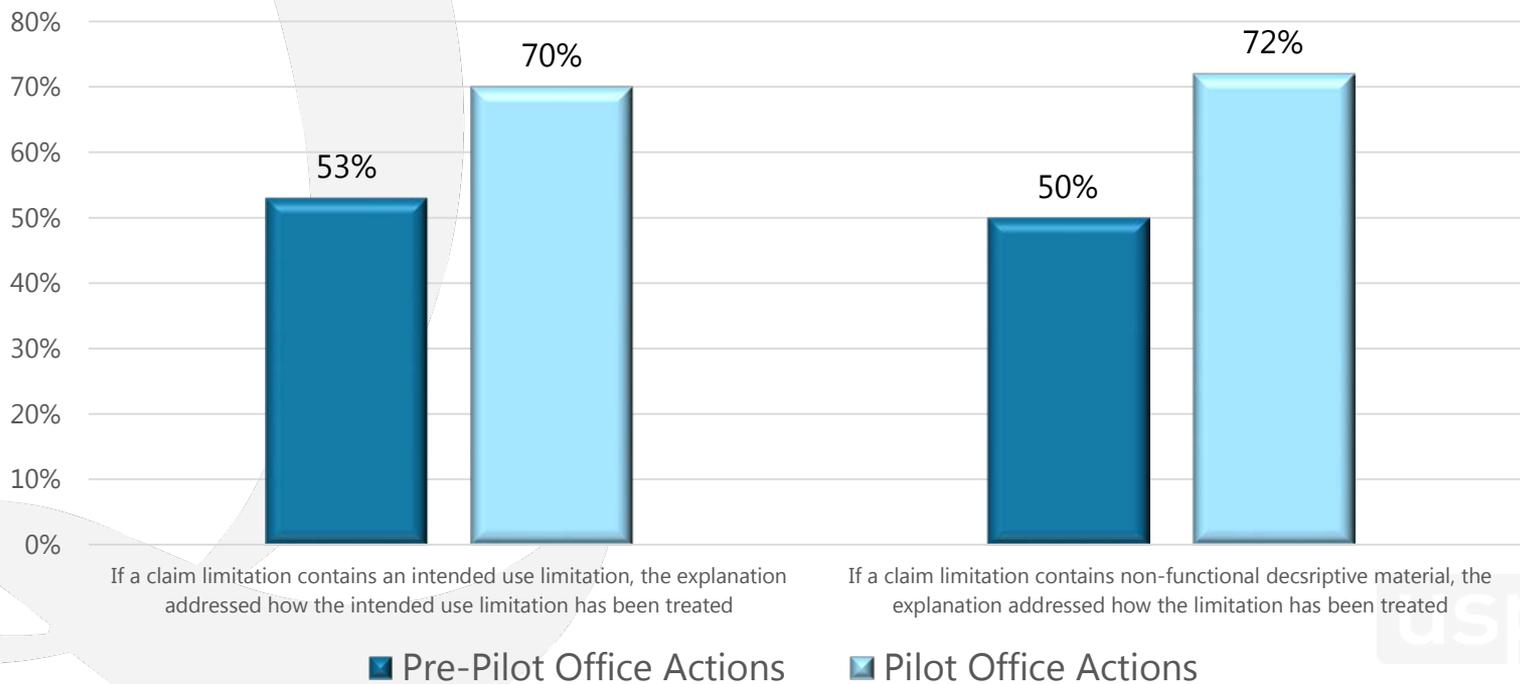
If an intended use, purpose, or result limitation is broader than applicant's presumed interpretation as described in the spec, the explanation addressed why the broader interpretation is appropriate

■ Pre-Pilot Office Actions

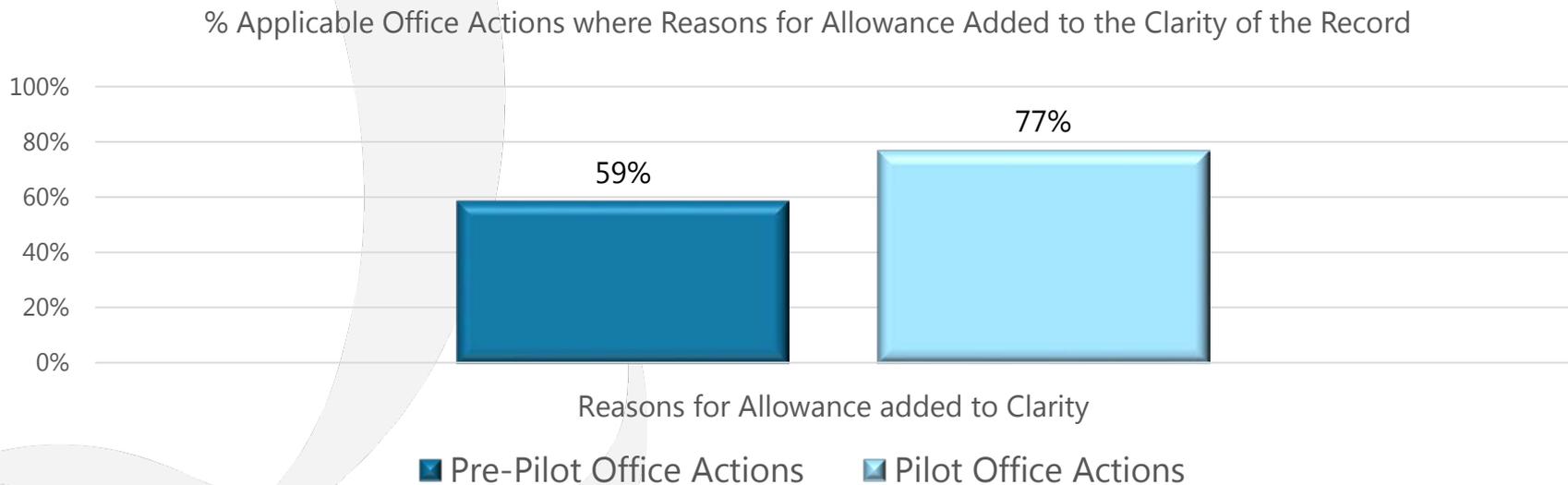
■ Pilot Office Actions

35 U.S.C. § 103 Rejections

% Applicable Office Actions Exhibiting Key Driver



Reasons for Allowance



Clarity of the Record – Next Steps

Monitor Pilot Treated Cases

- Are applicant's arguments more focused?
- Average time to disposal compared to pre-pilot cases?

Applicant Quality Chat

- Focused only on applicants with at least one pilot treated case
- Gather information/thoughts on any differences seen during pilot time period
- Discuss/share best practices

Full Detailed Report

- 2nd Quarter FY17

Master Review Form



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Challenges in Measuring Quality

- Objectivity vs. Subjectivity
- Leading vs. Lagging indicators
 - What we are doing rather than what we did
- Balloon-effect
- Variance and controlling for a wide range of factors

Variance, Consistency, & Quality

Consistency is a key driver of quality perceptions and there are numerous factors that contribute to potential inconsistencies.

1.5 million
Office
Actions

8,300
Examiners

45,000
Agents /
Attorneys

530 Art
Units

65 OPQA
Reviewers

260,000
CPC
symbols

Examiner
Production
Goals

15,000
pro se
Applicants

Pilot
Programs &
Initiatives

Changes in
law or
policy

and other factors...

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Program Goals

- To create a **single, comprehensive** tool (called the Master Review Form) that can be used by all areas of the Office to **consistently** review final work product
 - Common review standard
 - Common data points
- To better collect information on the **clarity and correctness** of Office Actions
- To collect review results into a **single data warehouse** for more **robust analysis**
 - Increased precision in metrics
 - More granular levels of analyses to detect anomalies, inconsistencies, and hot spots

Design

Correctness

Overall, were the 35 U.S.C. 102 rejection(s) in compliance? Yes In-Part No

Claimed features are explicitly/inherently disclosed in the prior art relied upon? Yes In-Part No N/A

Clarity

Examiner's reliance on the prior art is effective date sufficient? Yes No

Overall, how was the clarity of the 35 U.S.C. 102 rejection(s)? Above Average Average Below Average

Sufficient explanations were provided to clarify the basis of the rejection so as to allow applicant to understand rejection. Above Average Average Below Average

Applicant's explanation clearly explained their claim interpretation. Above Average Average Below Average N/A

Applicant's explanation clearly pin-point where the Office action contained clear sufficient reasons for the rejections. Above Average Average Below Average N/A

Clarity Comments:

Modular designed smart-form

20+ modules
Omitted/Made Rejections, Search, etc.

330 question library
Correctness, clarity, best practices

Auto-populated case details

Integrated system with sampling and workflow features

Looking Forward

The Master Review Form's single data warehouse facilitates:

- Better quality metrics
- Case studies without the need for *ad hoc* reviews
- Rapid measurement of the impact of training, incentives, or other quality programs on our work product
- Quality monitoring tools, such as dashboards

Quality Metrics



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Quality Metrics – Redefined

Metrics Today

Product Indicators

Master Review Form

Capturing both correctness and clarity of examiners' final work product using uniform criteria gathered in a single database

Process Indicators

Transactional QIR

Tracking the efficiency and consistency of our processes (for example, to identify "churning")

Perception Indicators

Survey Results

Continuing to internally and externally poll perceptions of patent quality

Key Product Indicators

Product Indicators

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Perception Indicators

Survey Results

Continuing to internally and externally poll perceptions of patent quality

- Correctness: Statutory Compliance
- Clarity
- Various levels of reporting

Quality Metrics Website

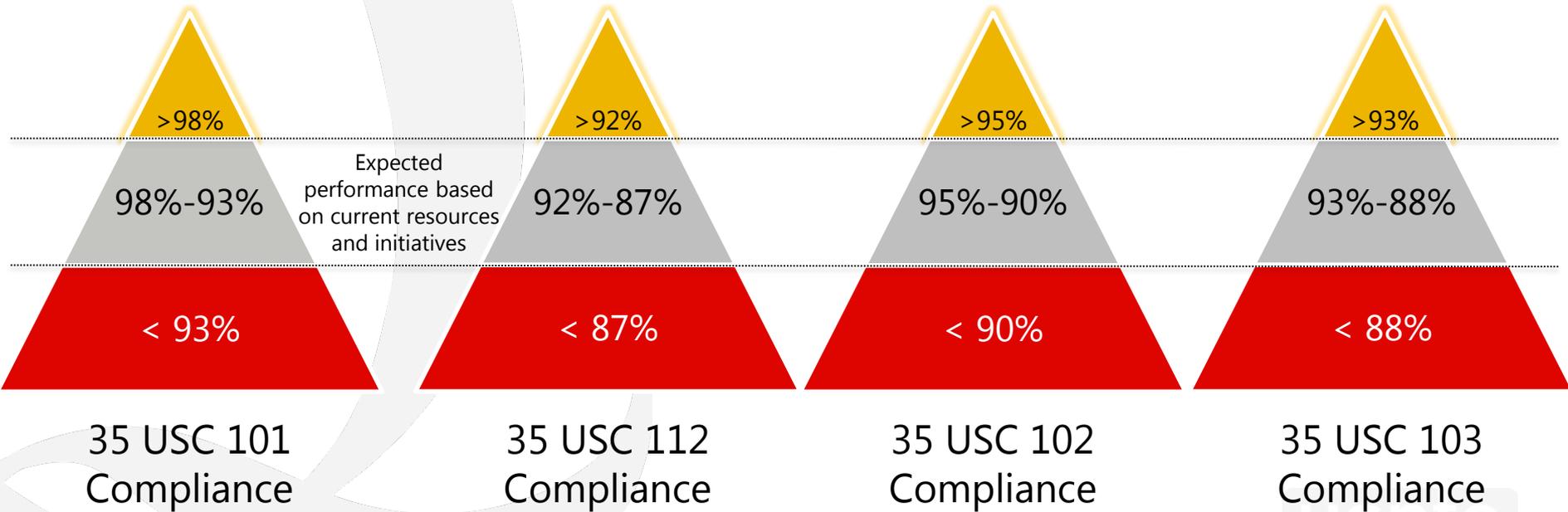
<https://www.uspto.gov/patent/initiatives/quality-metrics-1#step2>

USPTO Correctness Indicators for Q4 of FY 2016		All Reviews	
		Count	Percent
Quality Metric Category: Prior Art (35 USC 102 and 103)	Compliant	3527	88.4%
	Not Compliant	461	
	Total	3988	
Quality Metric Category: 35 USC 101 (including utility and eligibility)	Compliant	3883	
	Not Compliant	105	
	Total	3988	
Quality Metric Category: 35 USC 112 (35 USC 112 (a),(b) including (a)/(b) rejections related to 35 USC 112(f))	Compliant	3738	
	Not Compliant	250	
	Total	3988	

35 USC 112 Statutory Compliance Metrics

Quality Metric Category		All Reviews		Non-Final		Final		Allowance	
		Count	Percent	Count	Percent	Count	Percent	Count	Percent
Quality Metric Category: 112 Overall	Compliant	3738	93.7%	2874	92.7%	146	90.1%	718	98.8%
	Not Compliant	250	6.3%	225	7.3%	16	9.9%	9	1.2%
	Total	3988		3099		162		727	
Quality Metric Category: 35 USC 112(a) - Enablement	Compliant	3938	98.7%	3058	98.7%	158	97.5%	722	99.3%
	Not Compliant	50	1.3%	41	1.3%	4	2.5%	5	7%
	All Reviews	3988		3099		162		727	
Quality Metric Category: 35 USC 112(a) - Written Description	Compliant	3928	98.5%	3048	98.4%	156	96.3%	724	99.6%
	Not Compliant	60	1.5%	51	1.6%	6	3.7%	3	4%
	All Reviews	3988		3099		162		727	
Quality Metric Category: 35 USC 112(b)	Compliant	3847	96.5%	2968	95.8%	157	96.9%	722	99.3%
	Not Compliant	141	3.5%	131	4.2%	5	3.1%	5	.7%
	All Reviews	3988		3099		162		727	
Quality Metric Category: 35 USC 112(a)(b), (f)-related	Compliant	3961	99.3%	3074	99.2%	161	99.4%	726	99.9%
	Not Compliant	27	.7%	25	.8%	1	.6%	1	.1%
	All Reviews	3988		3099		162		727	

Quality Metrics FY17 Targets



Key Process Indicators

Product Indicators

Master Review Form

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Process Indicators

Transactional QIR

Tracking the efficiency and consistency of our processes (for example, to identify "churning")

Perception Indicators

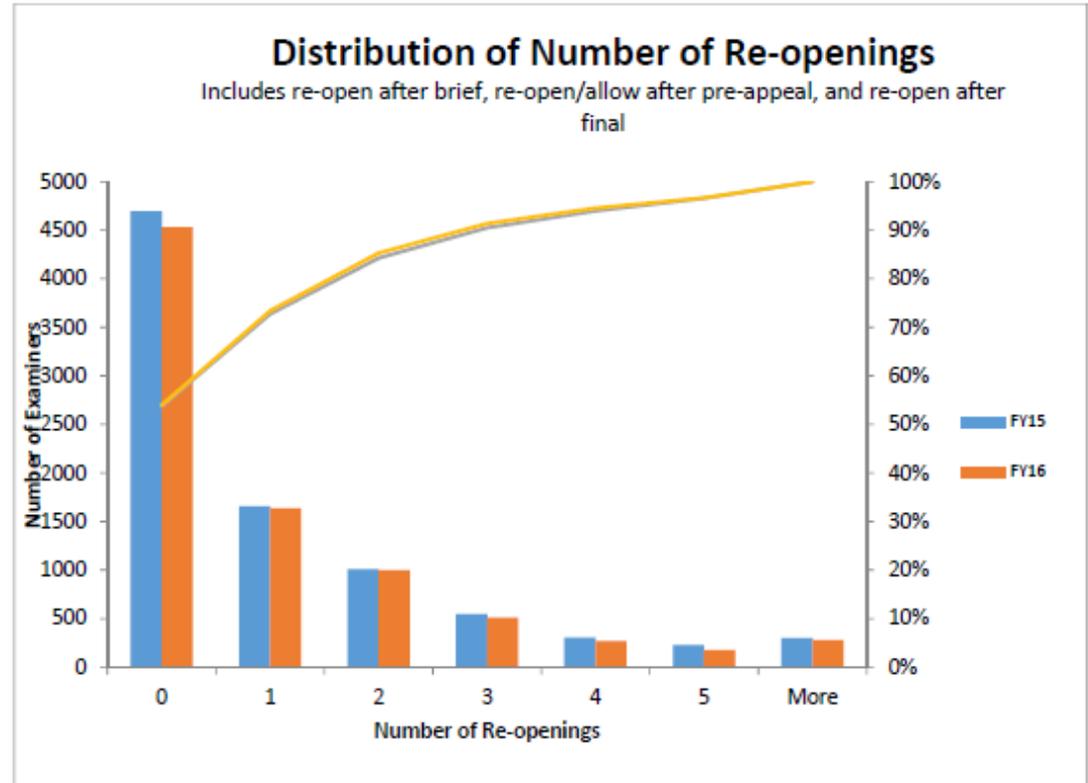
Survey Results

Continuing to internally and externally poll perceptions of patent quality

- Focus: Quality Index Reporting (QIR) Database
- Outliers
- Root-cause

Quality Metrics Website

- Process Indicators
 - Consistency of Decision Making
 - Rework
 - Reopening Prosecution



Key Perception Indicators

Product Indicators

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Process Indicators

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Perception Indicators

Survey Results

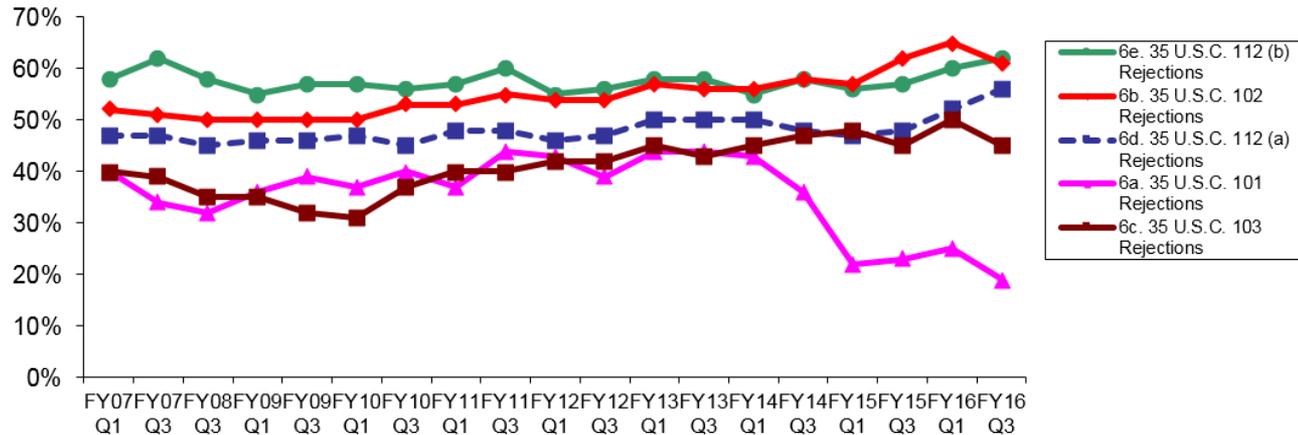
Continuing to internally and externally poll perceptions of patent quality

- Internal and external perception surveys
- Validate other metrics and identify quality hot spots

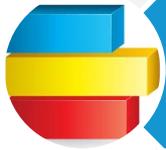
Quality Metrics Website

- Perception Indicators
 - Select data points from External Quality Survey

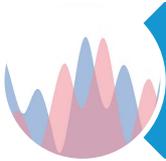
Frequency of Technically, Legally, and Logically Sound Rejections
(Percent reporting “most” or “all” of the time)



Quality Metrics - Next Steps



Publish Clarity Data



Develop Dashboards for Monitoring



Quality Assurance Action Plans



Evaluate Perception Indicators

Topic Submission for Case Studies



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Topic Submissions – Background

- Case studies used internally on an *ad hoc* basis to study particular issues
- Federal Register Notice initiated this program on December 21, 2015
 - USPTO invited stakeholders to submit patent quality-related topics for study
 - Submissions were accepted through February 12, 2016

Topic Submissions and Selection

Submissions:

- Received over 135 ideas for case studies from 87 stakeholders
 - Intellectual property organizations, law firms, companies, and individuals
 - <https://www.uspto.gov/patent/laws-and-regulations/comments-public/topics-submitted-quality-case-studies>

Process of review and selection:

1. Assessed whether the topic was appropriate or capable of being timely assessed via a case study
2. Determined whether other programs or mechanisms within the USPTO were more appropriate
3. Grouped the remaining submissions by subject matter

Topics Selected for Case Studies

Patent Quality Topic	Project Status
1. Compliance of rejections with 35 U.S.C. 101 official guidance	Being Finalized
2. Consistency of application of 35 U.S.C. 101 across Art Units/Technology Centers	In-Progress
3. Use of compact prosecution when making 35 U.S.C. 101 rejections	Being Finalized
4. Correctness and clarity of motivation statements in 35 U.S.C. 103 rejections	Being Finalized
5. Enforcement of 35 U.S.C. 112(a) written description in continuing applications	In-Progress
6. Consistent treatment of claims after May 2014 35 U.S.C. 112(f) training	Being Finalized

Compliance of rejections with 35 U.S.C. 101 official guidance

Objective: This study evaluated whether rejections made under 35 U.S.C. § 101 were correct under USPTO Guidance and were clearly explained.

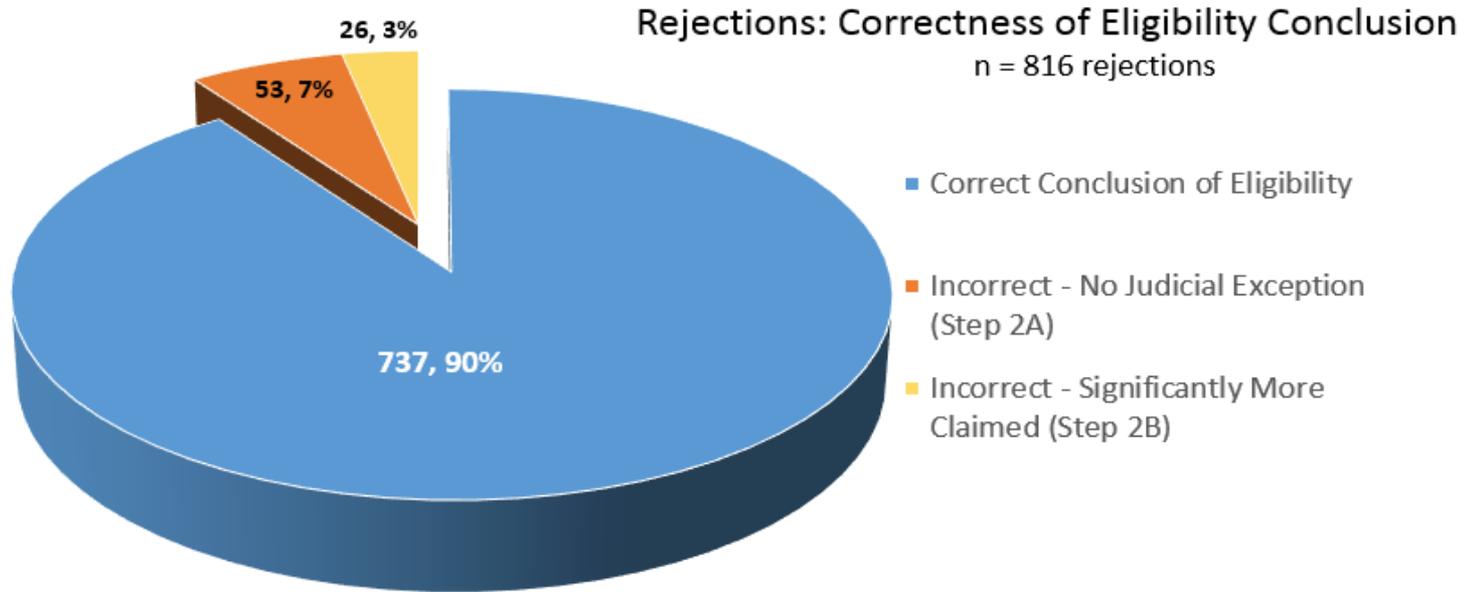
This was the top study suggested by the public.

Methodology of the Primary Study

A representative sample of Office actions across all Technology Centers having an *Alice/Mayo*-type § 101 rejection was chosen for study through a random selection process.

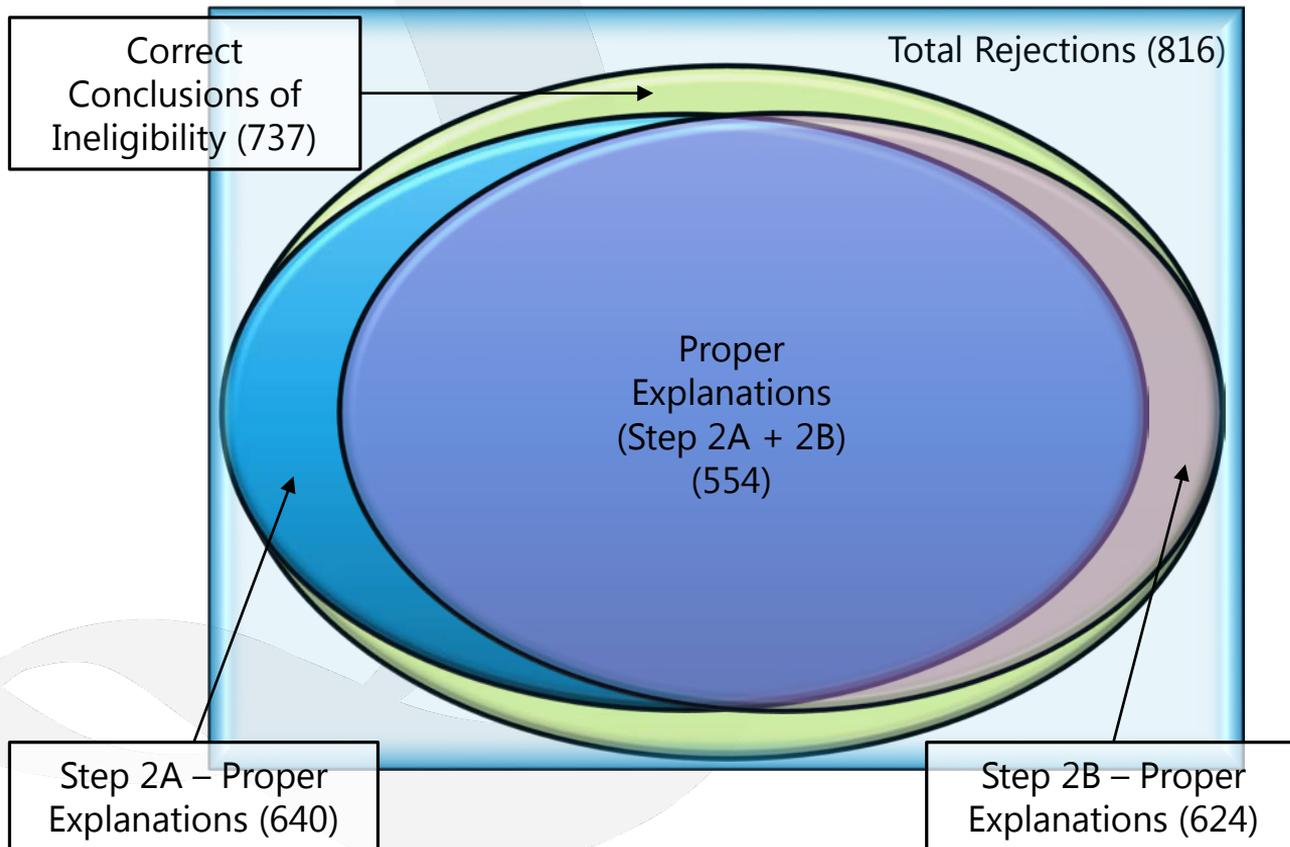
- Actions were issued January 2016-August 2016
 - May-June 2016 training on formulating § 101 rejections occurred. Results before and after the training were compared to determine the effect of the training.
 - 394 were Office actions issued pre-training; 422 were post-training.
- Review was limited to the first claim in the Office Action rejected under § 101 and its dependent claims
 - To maximize the breadth of cases/art areas/technologies studied

Findings – How often were the rejected claims actually ineligible?



99% of dependent claims were correctly treated where the independent claim was correctly rejected.

Findings – Were the rejections properly explained?



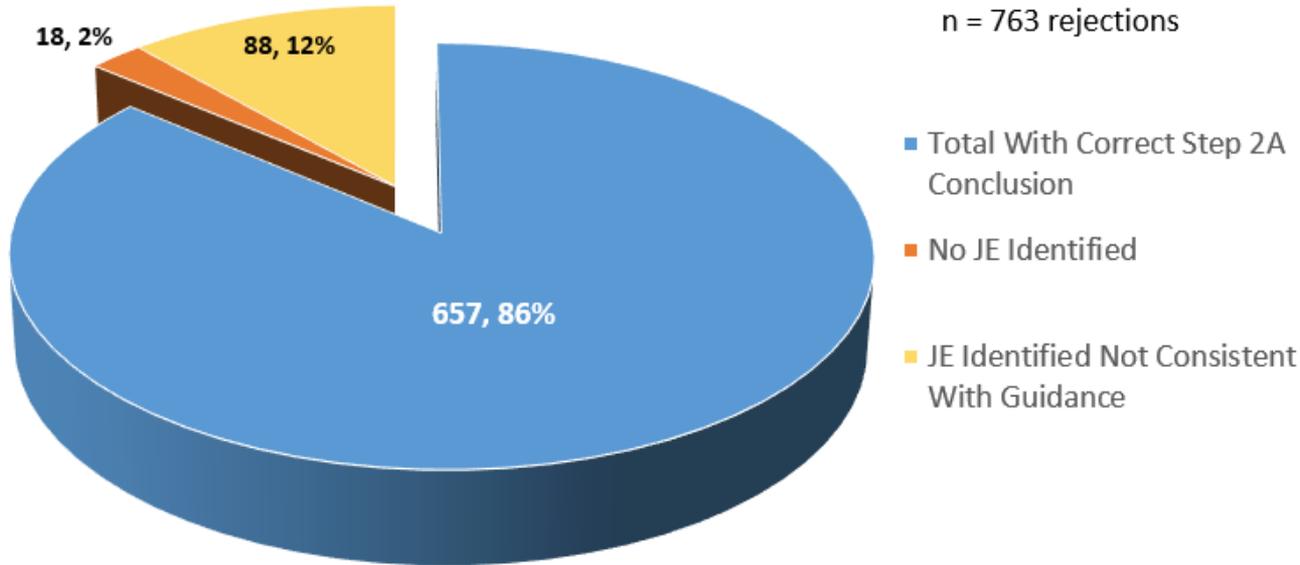
A proper explanation of ineligibility was interpreted as explaining why the claimed invention was directed to a judicial exception (Step 2A) and did not amount to significantly more than that judicial exception (Step 2B).

- Mere conclusory statements or boilerplate language were insufficient.

Findings – Drivers of § 101 Compliance with Guidance, Step 2A

Total: 763 of 816 Rejections with Correct Step 2A Conclusion

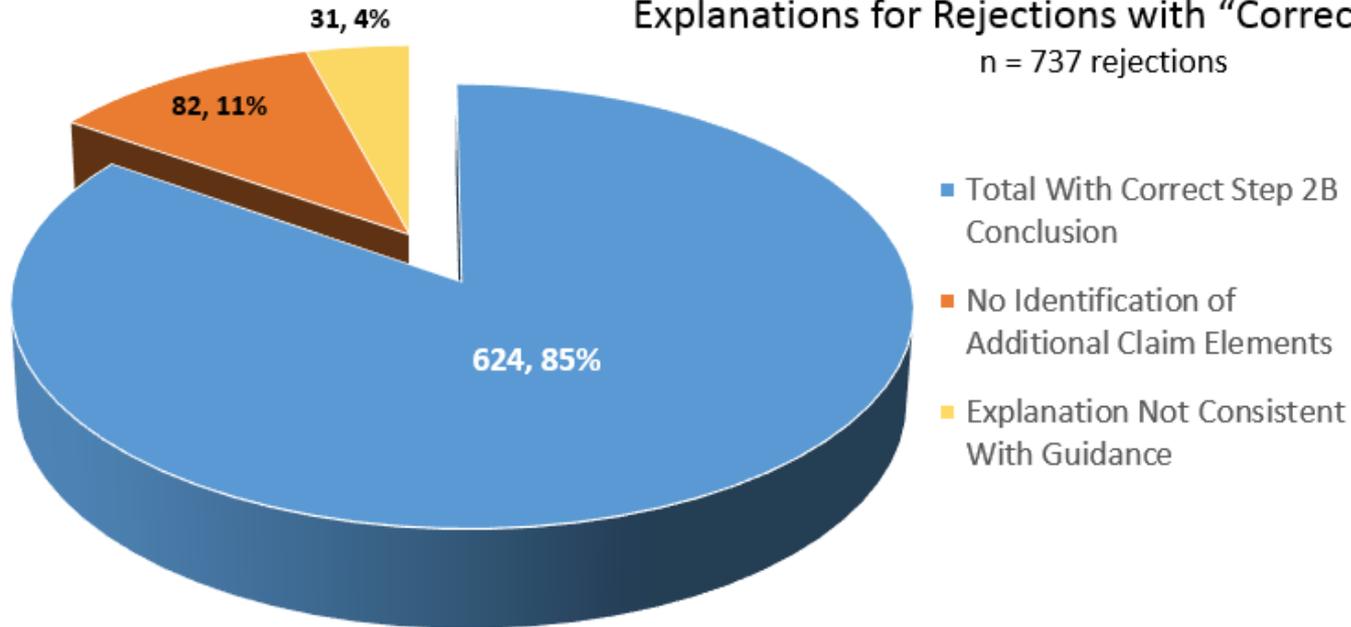
Explanations for Rejections with “Correct” Step 2A
n = 763 rejections



Findings – Drivers of § 101 Compliance with Guidance, Step 2B

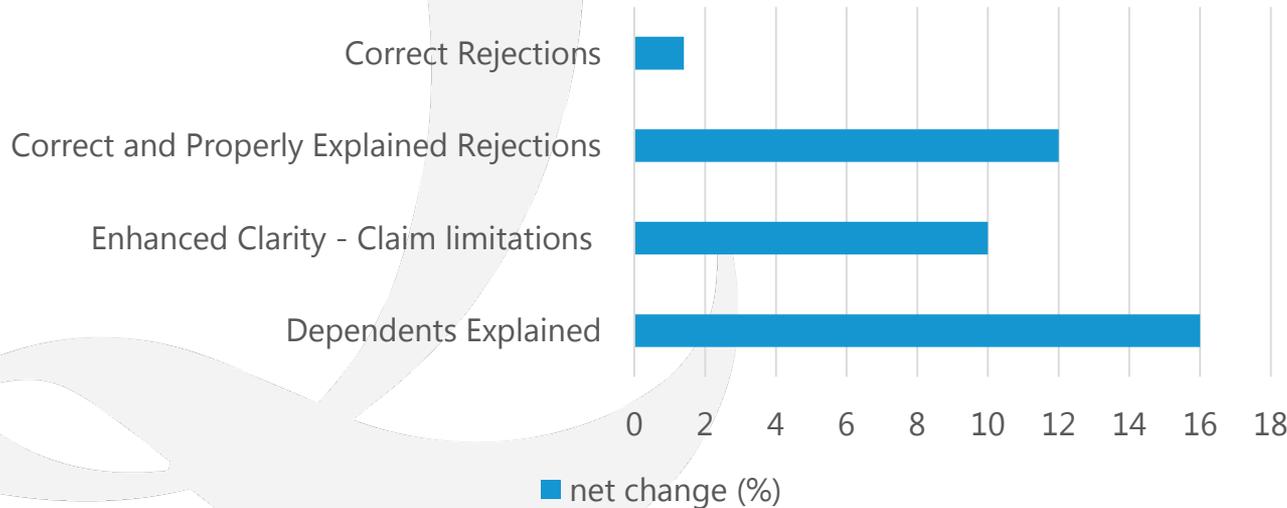
Total: 737 of 816 Rejections with Correct Step 2B Conclusion

Explanations for Rejections with “Correct” Step 2B
n = 737 rejections



Findings – Improvements Due to May 2016 Training

Improvement from Pre-Training to Post-Training



Improvement (% of total rejections)	Statistically Significant ?
90% → 91%	No
62% → 74%	Yes
40% → 50%	Yes
18% → 34%	Yes

Primary Study – Summary

Results:

- 90% of rejections that were made were of claims that are actually ineligible.
- 75% of those rejections of claims that are actually ineligible properly explained why the rejection was made.
- 68% of all studied rejections were correct and properly explained.

Secondary Study – Applicant’s Response and Next Office Action

Involved cases from study having Office Action issued in January – April 2016

January-April 2016 Cases	394
Responses filed	315 (81%)
Subsequent Office action	189 (48%)

- What did applicant argue/amend?
- Was § 101 rejection maintained or withdrawn?

Can any correlations be identified?

Secondary Study – Applicant’s Response and Next Office Action

Characteristics of the next Office action:

January-April 2016 Cases	394
Responses filed	315 (81%)
Subsequent Office action	189 (48%)
§ 101 rejection not maintained (including where claims were cancelled)	86 (45%)
§ 101 rejection maintained	103 (55%)
• Specifically addressed arguments	• 78 (76%)

Secondary Study – Correlations

One statistically significant correlation was found between an incorrect 2A analysis and withdrawal of the 101 rejection in the next Office action:

Did the study find the claim directed to an abstract idea?	How often was the rejection withdrawn in the next Office action?
Yes	40%
No (claim was eligible at 2A)	76%

Next Steps

- The Office expects to publish a case study report for this case study as well as the other case studies in the coming months
- The Office will use the data from all of the case studies to develop new training and programs to improve patent quality

Stakeholder Training on Examination Practice and Procedure (STEPP)



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Stakeholder Training on Examination Practice and Procedure (STEPP)

- 3-Day training on examination practice and procedure for patent practitioners
- Provide external stakeholders with a better understanding of how and why an examiner makes decisions while examining a patent application
- Aid in compact prosecution by disclosing to external stakeholders how examiners are taught to use the MPEP to interpret an applicant's disclosure

STEPP Course Descriptions

- The training is broken into three separate modules
 - Day 1 focuses on the role of an examiner and the steps an examiner would take when reading an application for the first time. Claim interpretation and 35 USC 101 and 112 are emphasized on Day 1.
 - Day 2 uses the information gathered during Day 1 to plan a search, conduct a search, and map prior art to claims using 35 USC 102 and 103.
 - Day 3 focuses on writing of an office action, including a discussion of restriction practices, as well as post-examination options such as the Patent Trial and Appeal Board (PTAB) and the Central Reexamination Unit (CRU).

STEPP Participant Feedback

Survey Questions	Average Score
I was given ample opportunity to discuss and ask questions about the course material.	4.8/5
The materials aided in my learning.	4.8/5
My knowledge and skills increased as a result of this course.	4.8/5
I plan to apply the knowledge and skills learned in this course.	4.9/5
I would recommend this course to someone else.	4.8/5

STEPP Participant Feedback, cont.

“The course was wonderful! They should make it a requirement for all patent attorneys. Understanding the finer points of examination workflow from the USPTO side was truly eye-opening and I look forward to using the trainers' tips and experience in my own work.”

-Surveyed Attendee

“It is amazing that this training is offered with no charge. I found this training to be more valuable and helpful than the training available in the private sector (which is often expensive).”

-Surveyed Attendee

“The program from my perspective as a new practitioner was fabulous. The insight gleaned into how the office operates in patent prosecution was highly beneficial.”

-William Nowakowski, IPWatchdog

Upcoming STEPP Programs

Dates	Location
January 10-12, 2017	Dallas, TX – Texas Regional Office
March 14-16, 2017	San Jose, CA – Silicon Valley Regional Office
May 9-11, 2017	Denver, CO – Rocky Mountain Regional Office
July 11-13, 2017	Alexandria, VA Campus
September 19-21, 2017	Detroit, MI – Midwest Regional Office



Questions?

