Quality Survey

for the United States Patent and Trademark Office

SEMI-ANNUAL REPORT FY21-Q3



Survey Reference Periods

Wave	Wave Name	Survey Reference Period	
15	FY11-Q3	April 2011 – June 2011	
16	FY12-Q1	October 2011 – December 2011	
17	FY12-Q3	April 2012 – June 2012	
18	FY13-Q1	October 2012 – December 2012	
19	FY13-Q3	April 2013 – June 2013	
20	FY14-Q1	October 2013 – December 2013	
21	FY14-Q3	April 2014 – June 2014	
22	FY15-Q1	October 2014 – December 2014	
23	FY15-Q3	April 2015 – June 2015	
24	FY16-Q1	October 2015 – December 2015	
25	FY16-Q3	May 2016 – July 2016	
26	FY17-Q1	November 2016 – January 2017	
27	FY18-Q1	October 2017 – December 2017	
28	FY18-Q3	May 2018 – July 2018	
29	FY19-Q1	October 2018 – December 2018	
30	FY19-Q3	May 2019 – July 2019	
31	FY20-Q1	October 2019 – December 2019	
32	FY20-Q3	May 2020 – July 2020	
33	FY21-Q1	October 2020 – December 2020	
34	FY21-Q3	May 2021 – July 2021	

When responding to questions on the survey, customers were asked to refer to their experiences in the three months prior to receiving the survey. This time period is referred to as the "survey reference period."

We have adopted the convention of naming each wave of data collection for the reference period covered by the survey. Thus, the current wave is titled "FY21-Q3", for Quarter 3 of the 2021 fiscal year 1.2.

¹ FY21-Q3 represents the 34th wave of data collection on the Quality Survey since 2006.

² Data collection cycle FY17-Q3 was not implemented.

Methodology

- The sample for each wave was drawn from a USPTO database of customers from "top filing" firms/entities.
- A new sample frame was acquired in October 2019 to update the list of "top filing" firms/entities. FY21-Q3 was the fourth launch using the new frame.
- The sample size of FY21-Q3 was approximately 3,000 customers.
- A stratified random selection of customers was asked to participate in two successive waves of data collection to create the panel design.
- Customers were offered both a paper and web option for completing the survey. In FY21-Q3, 96% of eligible customers completing the survey chose to respond via the web¹.

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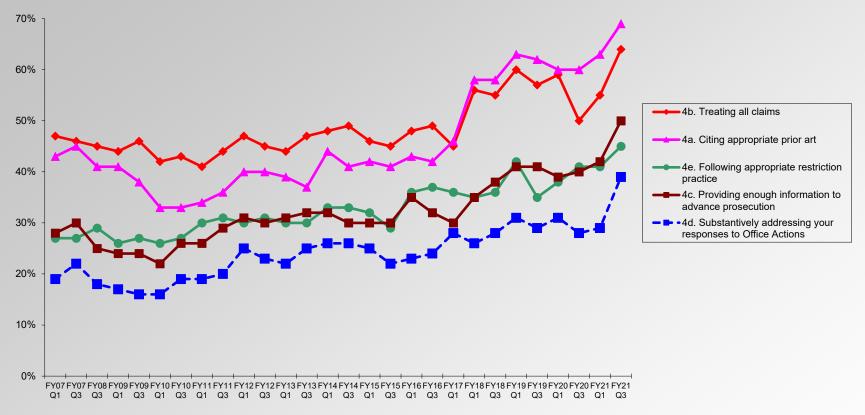
Main Findings

- In FY21-Q3, customers' ratings of overall examination quality remained positive. There was a significant increase in ratings of overall examination quality where ratings of "good" or "excellent" increased from 57% to 65%, and ratings of "poor" or "very poor" non-significantly increased from 3% to 6% [Slide 22]. There were non-significant increases in perceived change in overall examination quality [Slide 26].
- Customers reported that the extent to which patent examiners adhere to rules and procedures was greatest for "citing appropriate prior art" and "treating all claims." [Slide 6].
- The majority of customers reported *Correctness, Clarity*, and *Consistency* "most/all the time" for most rejection types (102, 103, 112a & 112b), with the exception of 101 rejections where rating were lower. [Slide 11].
- For quality of prior art, customers in the chemical field (1%) were significantly less likely to report "poor/very poor" quality than those in the mechanical (7%) or instruments (9%) fields. For overall examination quality, customers in the instruments field (74%) were more likely to report "good/excellent" than in the mechanical field (59%). Customers in the chemical (2%) and electrical field (3%) were significantly less likely to report "poor/very poor" than those in the mechanical (8%) or instruments (10%) fields. [Slides 21 & 24].
- For 101 rejections, customers in the chemical fields reported highest ratings for *Correctness*, *Clarity and Consistency* [Slide 12]. For 103, 112a and 112b rejections, customers in the instruments field had the highest ratings for *Correctness*, *Clarity* and *Consistency* [Slides 14, 16 & 17]. For 102 rejections customers in all four technology fields had similarly high ratings for *Clarity and Consistency*, while the electrical and mechanical had the highest ratings for *Correctness* [Slide 13].
- The Correctness, Clarity and Consistency of 103 rejections had the highest correlations with overall examination quality relative to other types of rejections, whereas the Clarity and Consistency of 112(a) rejections, and Clarity of 112 (b) rejections had the lowest correlation with overall examination quality [Slide 19].
- When asked how patent examiners can improve their responses to applicants' arguments to help advance prosecution, respondents said to 1) Address all **arguments** and provide detailed explanations; 2) Initiate or encourage **interviews** more often; 3) Address all elements of the **claim** and improve clarity; 4) Improve adherence and consistency (across examiners and groups) with **MPEP**, especially regarding **101**; and 5) Provide guidance (**recommendations** and **suggestions**) on paths to allowance [Slide 28].

USPTO Adherence to Rules and Procedures



Q4: Extent to Which Patent Examiners Adhere to Rules and Procedures (Percent reporting "large extent")



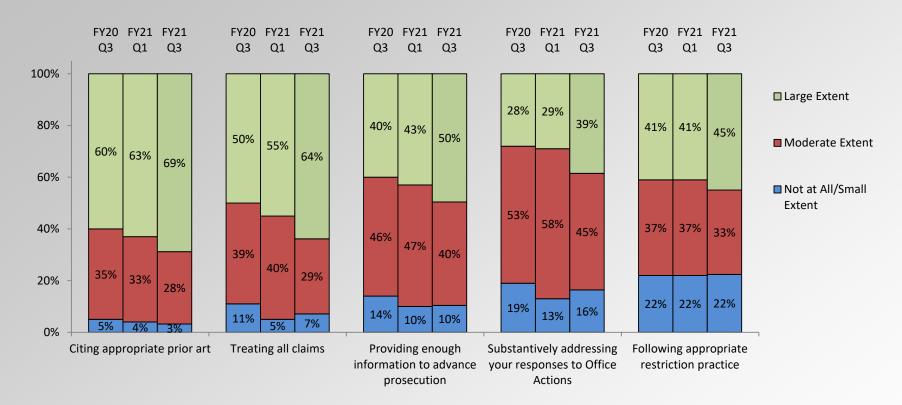
When examining results gathered in FY21-Q3, customers report greatest adherence to rules and procedures for "citing appropriate prior art" and for "treating all claims".

The percentages of customers reporting adherence to a "large extent" all increased from FY21-Q1 to FY21-Q3, and the increases for "treating all claim," "providing enough information to advance prosecution," and "substantially addressing your responses to Office Actions" are significant.

Note 1: For FY21-Q3, when "large extent" responses are compared across items 4a-4e, all comparisons are statistically significant at p<.001 except 4a vs. 4b, 4c vs. 4e, and 4d vs. 4e which are not significantly differ.

Note 2: The typical confidence interval for these data is ± 5.71%.

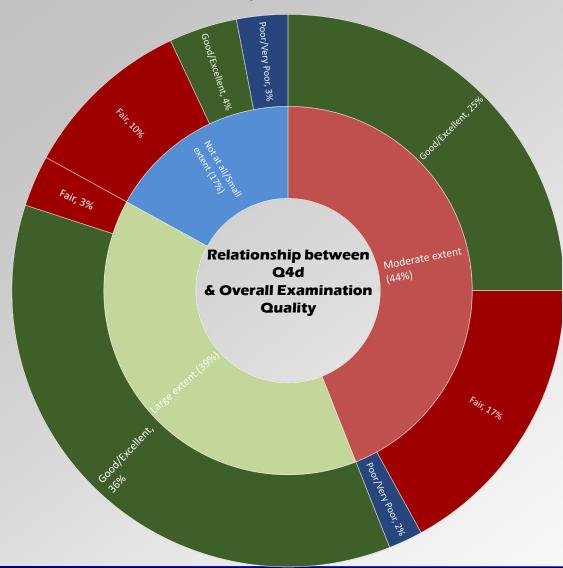
Q4: Extent to Which Patent Examiners Adhere to Rules and Procedures



Among the customers that had communicated with USPTO Examiners in the past 3 months, the vast majority reported that Examiners cited appropriate prior art, treated all claims, provided enough information to advance prosecution, and substantively addressed responses to Office Actions to a "moderate" or "large" extent. Although still the majority, a slightly smaller proportion reported the Examiners followed appropriate restriction practice to a "moderate" or "large" extent.



Q4d by Overall Examination Quality (Q11)



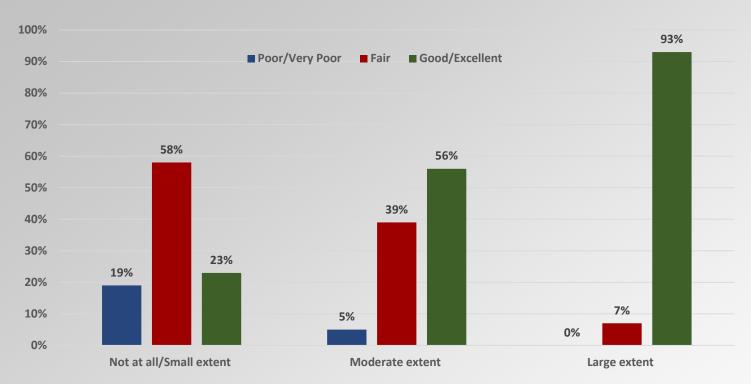
Among the respondents who reported the examiners were able to substantively address responses to Office Actions "not at all" or to a "small extent" (17%), the majority reported the overall examination quality as fair (10%), and a smaller portion reported good/excellent (4%), or poor/very poor (3%).

Among the respondents who reported examiners were able to substantively address responses to Office Actions to a "moderate extent" (44%), most reported the overall examination quality as good/excellent (25%) followed by fair (17%). A very small portion reported poor/very poor (2%).

Among the respondents who reported examiners were able to substantively address responses to Office Actions to a "large extent" (39%), most reported the overall examination quality as good/excellent (36%). A smaller portion reported fair (3%).



Q4d by Overall Examination Quality (Q11)



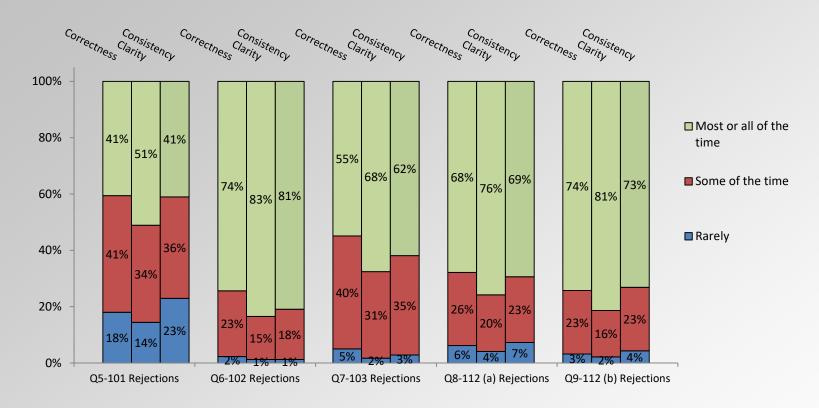
For the respondents who reported the examiners were able to substantively address responses to Office Actions "not at all" or to a "small extent", the majority reported the overall examination quality as fair (58%), and a smaller portion reported good/excellent (23%), or poor/very poor (19%).

For the respondents who reported examiners were able to substantively address responses to Office Actions to a "moderate extent", most reported the overall examination quality as good/excellent (56%) followed by fair (39%). A small portion reported poor/very poor (5%).

For the respondents who reported examiners were able to substantively address responses to Office Actions to a "large extent," most reported the overall examination quality as good/excellent (93%). A smaller portion reported fair (7%).

Correctness, Clarity & Consistency of Rejections

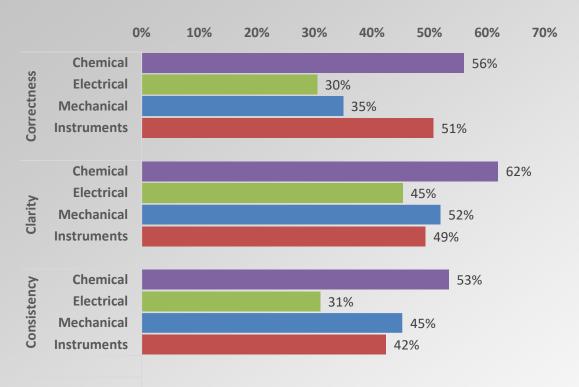
Q5-Q9: Frequency of Correctness, Clarity, and Consistency of 35 U.S.C. Rejections



In FY21-Q3, customers who received 102 rejections and 112b rejections were most likely to report that those rejections were reasonable in terms of Correctness, Clarity and Consistency "most" or "all" of the time, relative to other types of rejections. Those who received 101 rejections were least likely to report that the rejections were reasonable in terms of Correctness, Clarity, and Consistency "most" or "all" of the time.

Across all rejection types customers were most likely to report reasonableness in terms of Clarity, relative to Correctness and Consistency.

Q5: Correctness, Clarity, and Consistency of 101 Rejections (Percent reporting "most" or "all of the time") by Technology Field



In FY21-Q3, for 101 rejections, the proportion of customers reporting Correctness "most/all of the time" was the highest in the chemical field (56%), medium in the instruments field (51%), and lower in mechanical (35%) and electrical (30%) fields. The differences between the chemical and the electrical and mechanical fields, and the difference between the electrical and instruments field are significant. The remaining differences are not significant.

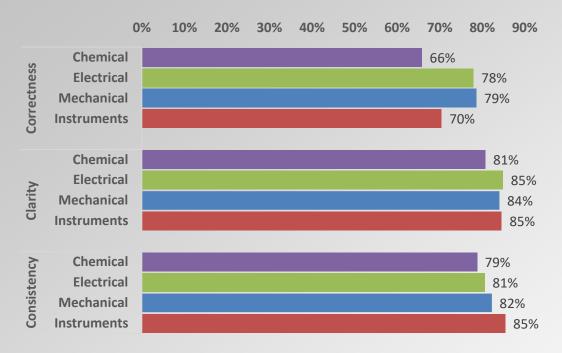
The proportion reporting Clarity "most/all of the time" was highest in the chemical field (62%), followed by the mechanical field (52%), instruments field (49%), and electrical field (45%). The chemical filed is significantly higher than the electrical field.

The proportion of customers reporting Consistency "most/all of the time" was highest in the chemical field (53%), followed by the mechanical field (45%), instruments field (42%), and electrical field (31%). The chemical field and mechanical fields are both significantly higher than the electrical field.

For Correctness of rejection, chemical vs. electrical (p<.0001), chemical vs. mechanical (p=0.0122), electrical vs. instruments (p=0.0154). Note: For Clarity of rejection, chemical vs. electrical (p=0.0105).

For Consistency of rejection, chemical vs. electrical (p=0.0003), electrical vs. mechanical (p=0.0371).

Q6: Correctness, Clarity, and Consistency of 102 Rejections (Percent reporting "most" or "all of the time") by Technology Field

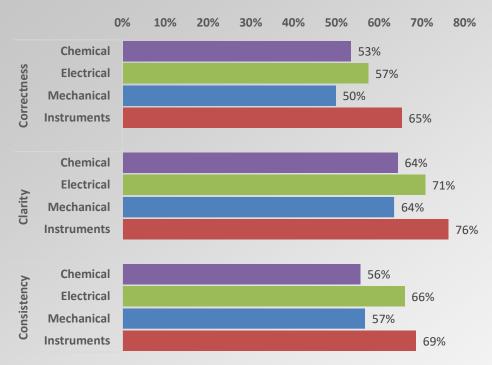


In FY21-Q3, for the 102 rejections, the proportions of customers reporting Correctness "most/all of the time" was higher in the mechanical (79%) and electrical fields (78%), than the instruments field (70%) and chemical field (66%). The electrical and mechanical fields are significantly higher than the chemical field.

The proportion of customers reporting Clarity "most/all of the time" was non-significantly lower in the chemical field (81%), compared with the other three fields: electrical field (85%), mechanical (84%), and instruments (85%) fields.

The proportion of customers reporting Consistency "most/all of the time" was highest in the instruments field (85%), followed by the electrical field (81%), mechanical field (82%), and chemical field (79%). None of the differences are significant.

Q7: Correctness, Clarity, and Consistency of 103 Rejections (Percent reporting "most" or "all of the time") by Technology Field

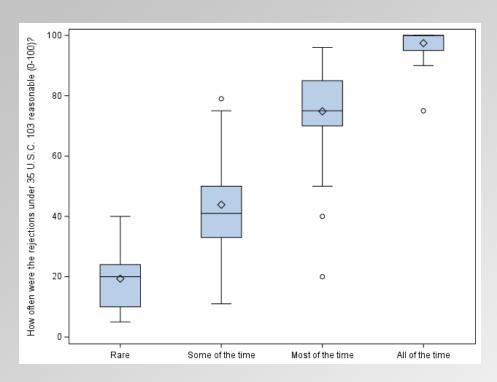


In FY21-Q3, for the 103 rejections, customers in the Instruments field were most likely to report Correctness, Clarity and Consistency "most/all of the time" as compared to those in the electrical, mechanical and instruments fields. Specifically the proportion of customers reporting Correctness "most/all of the time" was the highest in the instruments field (65%), followed by electrical field (57%), and lowest in chemical (53%) and mechanical fields (50%). None of the differences are statistically significant.

The proportion of customers reporting Clarity "most/all of the time" was the highest in the instruments field (76%), which was higher than the other three fields (chemical 64%, electrical 71% and mechanical 64%). None of the differences are statistically significant.

The proportion of customers reporting Consistency "most/all of the time" was the highest in the instruments field (69%), followed by the electrical field (66%), mechanical field (57%), and the chemical (56%). The proportion in the electrical field is significantly higher than that in the chemical field.

Q7a follow-up question: How often were the 103 Rejections reasonable in terms of correctness? (Sliding scale 0 – 100%)



In FY21-Q3, after answering Question 7a about the reasonableness of 103 rejections in terms of correctness, respondents were asked to assign a percentage on a 0-100% scale, reflecting their previous answer (Rarely, Some of the time, Most of the time, or All of the time). The boxplots show the distributions of responses for each option in Q7a.

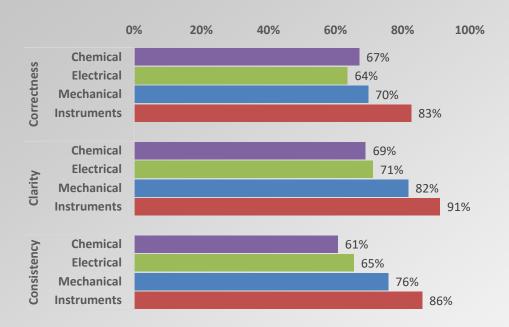
The weighted mean response among the respondents who selected "Rare" is around 19, with a standard error of 3.4. The median is around 16 with the lower quartile at 9 and upper quartile at 22.

The weighted mean response among the respondents who selected "Some of the time" is around 44, with a standard error of 1.4. The median is around 40 with the lower quartile at 32 and upper quartile at 50. There is one outlier response of 79.

The weighted mean response among the respondents who selected "Most of the time" is around 75, with a standard error of 1.1. The median is around 75 with the lower quartile at 69 and upper quartile at 84. There are a couple of outlier responses of 20 and 40.

The weighted mean response among the respondents who selected "All of the time" is around 97, with a standard error of 1.0. The median is around 98 with the lower quartile at 95 and upper quartile at 99. There is one outlier response of 75.

Q8: Correctness, Clarity, and Consistency of 112a Rejections (Percent reporting "most" or "all of the time") by Technology Field



In FY21-Q3, for the 112a rejections, customers in the instruments field were most likely to report Correctness, Clarity and Consistency "most/all of the time" as compared to those in the chemical, electrical and mechanical fields. Specifically, the proportion of customers reporting Correctness "most/all of the time" was the highest in the instruments field (83%), followed by the mechanical (70%) and chemical field (67%), and significantly higher than the electrical field (64%).

The proportion of customers reporting Clarity "most/all of the time" was the highest in the instruments field (91%), followed by the mechanical field (82%). Both are significantly higher than the electrical (71%) and chemical field (69%).

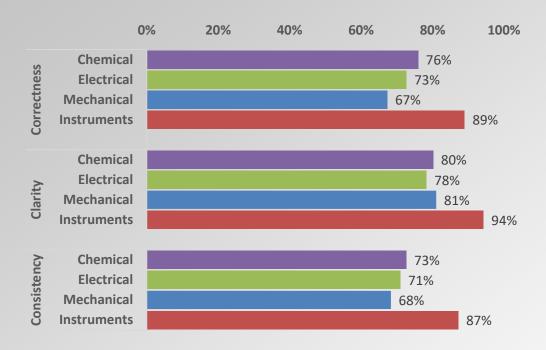
The proportion of customers reporting Consistency "most/all of the time" was highest in the instruments field (86%), followed by the mechanical field (76%). Both are significantly higher than the electrical (65%) and chemical (61%) fields.

For Correctness of rejection, electrical vs. instruments (p=0.0134).

For Clarity of rejection, chemical vs. mechanical (p=0.0194), chemical vs. instruments (p=0.0032), electrical vs. mechanical (p=0.0305), electrical vs. instruments (p=0.0046).

For Consistency of rejection, chemical vs. mechanical (p=0.0099), chemical vs. instruments (p=0.0023), electrical vs. mechanical (p=0.0478), electrical vs. instruments (p=0.0077).

Q9: Correctness, Clarity, and Consistency of 112b Rejections (Percent reporting "most" or "all of the time") by Technology Field



In FY21-Q3, for the 112b rejections, customers in the instruments field were most likely to report Correctness, Clarity and Consistency "most/all of the time" as compared to those in the chemical, electrical and mechanical fields. Specifically, the proportion of customers reporting Correctness "most/all of the time" was highest in the instruments field (89%), followed by the chemical field (76%). The instruments field is significantly higher than the electrical (73%) and mechanical (67%) field.

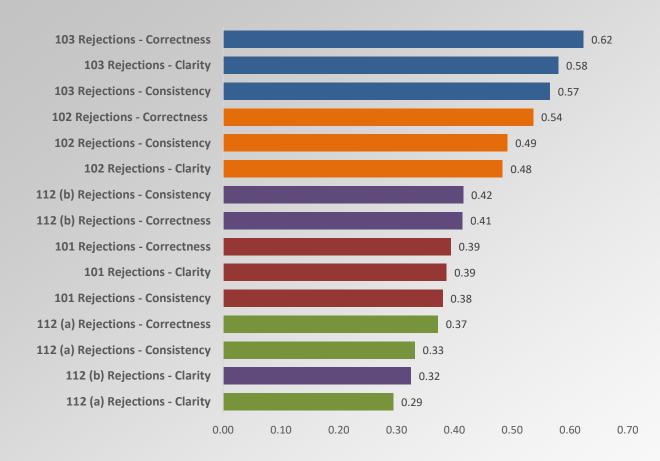
The proportion of customers reporting Clarity "most/all of the time" was the highest in the instruments field (94%), significantly higher than the chemical (80%), mechanical (81%) and electrical (78%) fields.

The proportion of customers reporting Consistency "most/all of the time" was the highest in the instruments field (87%), significantly higher than the chemical (73%), electrical (71%) and mechanical (68%) fields.



Overall Examination Quality & Search Quality

Correlations of Correctness, Clarity, and Consistency of Rejections (Q5-Q9) with Overall Examination Quality (Q11) - Ranking



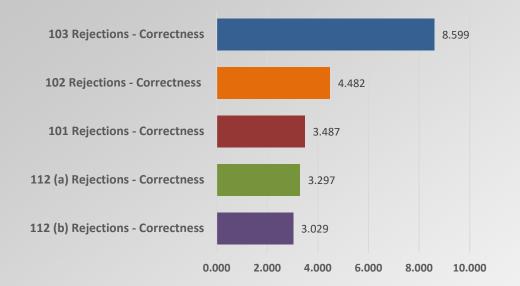
Polychoric correlations between overall examination quality (Q11) and each of the rejection factors were calculated and ranked from the highest to the lowest.

In general, the 103 rejections were found to have the highest correlations with overall examination quality, with all aspects of 103 rejections most highly correlated with overall examination quality.

Ratings of 112(a) rejections (all three aspects, Correctness, Clarity, and Consistency) and 112(b) Clarity were found to have the lowest correlations with overall examination quality.



Odds Ratio of the Correctness of Rejections (Q5-Q9) against the Overall Examination Quality (Q11)



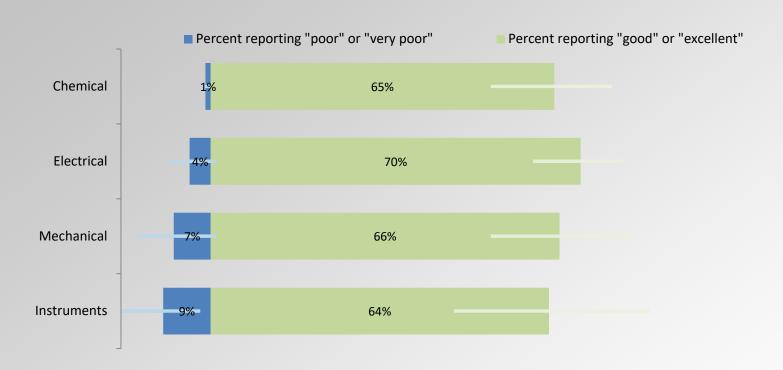
Weighted logistic regressions were conducted with the dichotomized Overall Examination Quality (Q11) as outcome (1=Good/Excellent, 0=Fair/Poor/Very Poor), and the dichotomized Correctness of rejection as predictors (1=Most/All the time; 0=Some time/Rarely). One weighted logistic regression was modeled for each of the rejections (Q5-Q9). The odds ratios of the estimates were ranked from the highest to the lowest.

The 103 rejections were found to have the highest odds ratio against Overall Examination Quality. That is, if a respondent rated the 103 rejections to be correct "most/all the time", the respondent is 8.6 times more likely to rate the Overall Examination Quality as good/excellent.

The 112(b) rejections were found to have the lowest odds ratio (3.03) compared with other rejections.

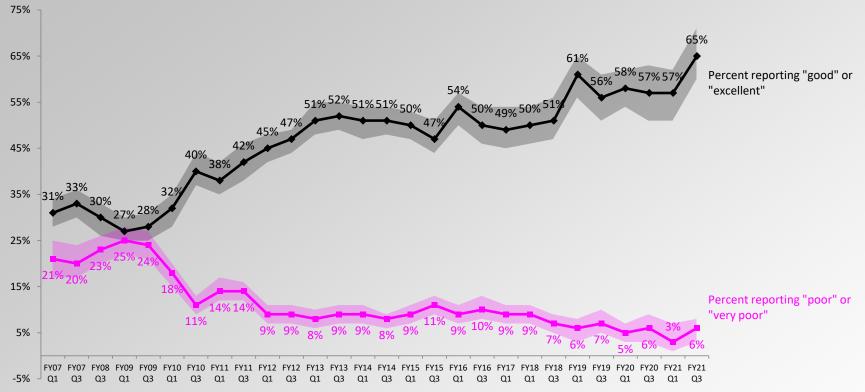


Q10: Percent Reporting "Good" or 'Excellent" Quality of Prior Art by Technology Field (Q2)



These results show that in FY21-Q3 customers in the chemical, electrical, mechanical and instruments technology fields were more likely to report that the quality of prior art was "good" or "excellent" than "poor" or "very poor". Customers in the electrical field (70%) were more likely to report "good" or "excellent" than customers in the chemical field (65%), the mechanical field (66%) and the instruments field (64%), but the differences are not statistically significant. There was a significantly smaller proportion of customers in the chemical field (1%) who reported "poor" or "very poor" compared with mechanical (7%) and instruments (9%) fields.

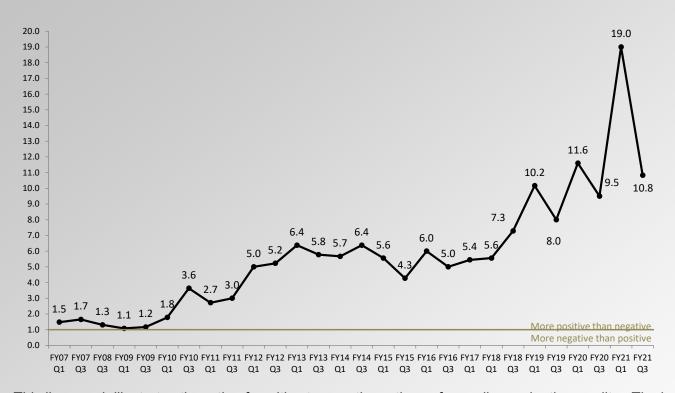
Q11: Percent Positive and Negative Ratings of Overall Examination Quality in Past 3 Months, By Quarter



Between FY21-Q1 and FY21-Q3, the percentage of customers reporting that overall examination quality was "poor" or "very poor" increased non-significantly from 3% to 6%, and the percentage of customers reporting that overall examination quality was "good" or "excellent" increased significantly from 57% to 65%.

In FY21-Q3, more than six in ten customers reported the overall examination quality was "good" or "excellent" and less than one in ten customers reported that overall examination quality was "poor" or "very poor".

Q11: Ratio of Positive to Negative Ratings of Overall Examination Quality in Past 3 Months

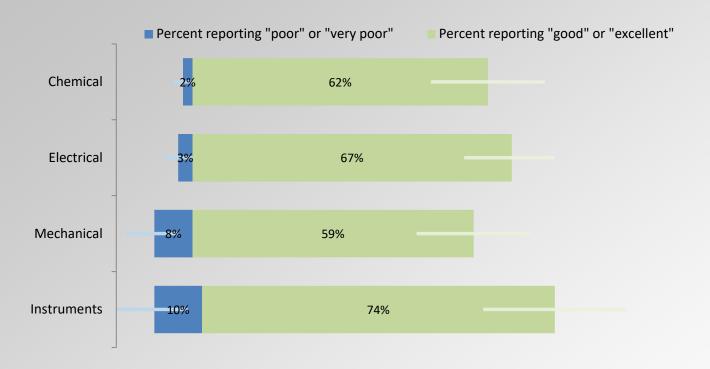


This line graph illustrates the ratio of positive to negative ratings of overall examination quality. The horizontal line at 1.0 represents the reference line of when that ratio is equal to 1. The graph shows that this positive-to-negative ratio decreased non-significantly between FY21-Q1 and FY21-Q3 from 19 to 10.8*.

In FY21-Q3, for every customer that rated overall examination quality as "poor" or "very poor", more than 10 customers rated it as "good" or "excellent".

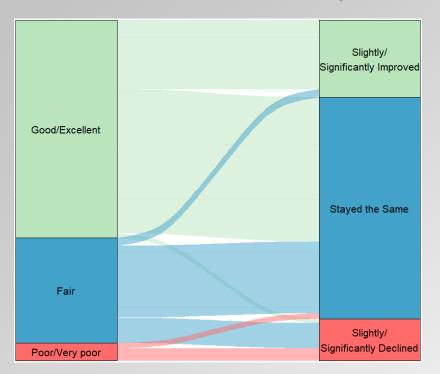
^{*}This change of ratio is not significant, due to the large standard error of the estimates.

Q11: Percent Reporting "Good" or 'Excellent" Overall Examination Quality (Q11) by Technology Field (Q2)



These results show that in FY21-Q3 customers in the chemical, electrical, mechanical, and instruments technology fields were more likely to report that overall examination quality was "good" or "excellent" than "poor" or "very poor". There is larger proportion of customers in the instruments field (74%) who reported "good" or "excellent" compared with the other three fields, and significantly larger than the mechanical field (59%). There was a significantly larger proportion of customers in the mechanical field (8%), and instruments filed (10%) who reported "poor" or "very poor" compared with chemical (2%) and electrical (3%) fields.

Q11: Overall Examination Quality (Q11) by Perceived Change in Overall Examination Quality in the Past 3 Months (Q12)



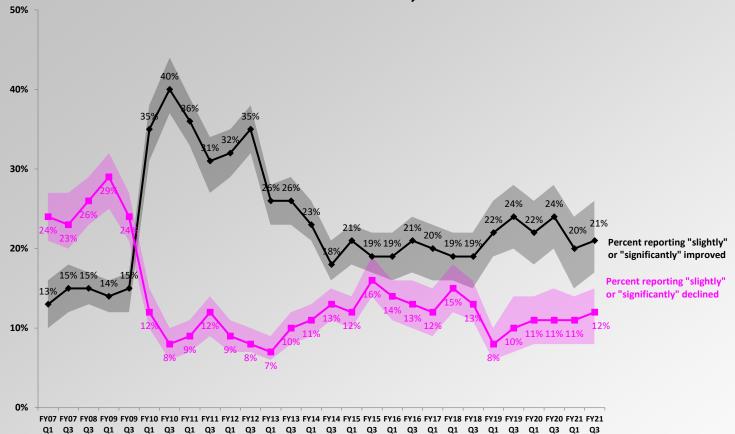
Q11	Q12	Weighted Percent
	Slightly/Significantly Improved	18.2
Good/ Excellent	Stayed the Same Slightly/Significantly	46.1
	Declined	1.1
	Total	65.4
	Slightly/Significantly	
	Improved	3.0
Fair	Stayed the Same	19.1
ı alı	Slightly/Significantly Declined	7.0
	Total	29.1
	Slightly/Significantly Improved	0.0
Poor/	Stayed the Same	2.1
Very Poor	Slightly/Significantly	0.5
	Declined	3.5
	Total Total	5.6
	100	

The plot and table show that in FY21-Q3, among respondents who rated the overall quality as "good/excellent" (65.4%), the majority reported that the quality "stayed the same" (46.1%) in the last 3 months. A smaller proportion reported that the quality "improved" (18.2%), and only 1.1% reported the quality declined.

Among respondents who rated the overall quality as "fair" (29.1%), the majority reported that the quality "stayed the same" (19.1%). Smaller proportions reported that the quality "declined" (7%) or "improved" (3%).

Among respondents who rated the overall quality as "poor/very poor" (5.6.%), most reported that the quality "declined" (3.5%) or "stayed the same" (2.1%). None reported "improved."

Q12: Perceived Change in Overall Examination Quality in the Past 3 Months, across Quarters

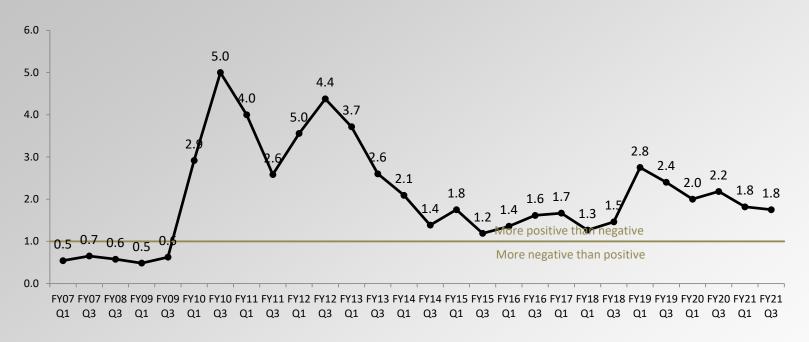


Since 2010, customers have been more likely to report that quality had "slightly or significantly improved", than to report that quality had "slightly or significantly declined."

From FY21-Q1 to FY21-Q3, the proportion reporting that examination quality "slightly or significantly improved" increased from 20% to 21%, and the proportion reporting that the quality "slightly or significantly declined" increased from 11% to 12%. Both increases are non-significant.



Q12: Ratio of Positive to Negative Ratings of Perceived Change in Overall Examination Quality in the Past 3 Months



This line graph illustrates the ratio of positive to negative ratings of perceived change in examination quality. The graph shows the ratio stays the same from FY21-Q1 to FY21-Q3 at 1.8.

In FY21-Q3, for every customer that rated examination quality as "slightly" or "significantly" declined, less than two customers rated it as "slightly" or "significantly" improved.

Q13: How can patent examiners improve their responses to applicants' arguments to help advance prosecution?

Following are the most frequent themes revealed in the findings:

Arguments: Address <u>all</u> arguments. Examiners sometimes fail to address one or more of the arguments. Provide detailed explanations rather than using boilerplate language ("for reasons set forth in the prior office action.." or "not persuasive.."), cutting and pasting from the previous office action, or repeating the previous rejection. Customers want their arguments addressed in subsequent office actions with enough information so they can adequately respond. They want their arguments addressed where new art is applied (but aspects of applicant's previous arguments are still relevant). They ask that examiners do not brush off arguments after non-final rejections and take the arguments more seriously. Some suggested a separate section for addressing applicants' arguments, and addressing arguments one-byone. (n=102)

Interviews / Discussions: It would be extremely helpful if patent examiners would <u>initiate</u> or encourage interviews more often (even after a response has been filed), and were more prepared for interviews. Some would like to be contacted before examination to clarify understanding of the invention. It would be helpful if examiners were more available for calls since some respondents feel issues could be resolved with a short discussion. It would be very helpful if the office action informed them by what method the examiner prefers an interview be requested (e.g., AIR, email, phone call), and the preferred timing for the interview (e.g., before filing a Response, after filing a Response, or not at all). (n=46)

Claims: Address all elements of the claim. Some examiners do not consider the limitations added to the claims in dependent claims. Finding some of the dependent claims allowable can assist in advancing prosecution. Improve clarity of which references are applied to which claim elements, and provide more rationale for each limitation. Point out more specifically what parts of the prior art they are relying on for meeting the limitations of the claims. It is helpful when examiners provide drawings to explain their claim interpretation. Be more reasonable with interpretation of claim terms. When they assert "broadest reasonable interpretation" for a claim term, explain why their interpretation is "reasonable" and not just the "broadest interpretation." (n=43)

MPEP / 101: Improve understanding of the case law and guidance available in the MPEP. More adherence and consistency (across examiners and groups) with MPEP, especially regarding 101, would be helpful in advancing prosecution. Examiners do not always do what is required by the MPEP and analyze every claim that is rejected under 101. Instead, they often analyze the independent claim and then reject all the claims on the basis of finding that one claim patent ineligible. Because 101 rejections under Alice are so subjective, customers want more assistance as to what features examiners are looking for that would overcome rejection. Respondents acknowledge that the courts, attorneys, and USPTO examiners all struggle to understand Alice. They suggest getting supervisor or 101 experts' input when 101 rejection exists. (n=39)

Recommendations / Suggestions: Be more helpful. Provide guidance on paths to allowance. Respondents said it would help advance prosecution if examiners share solutions and make recommendations when they see patentable subject matter in the application. Provide helpful ideas as well as specific suggestions for amending claims. For example, suggest allowable claim language, general amendment theories for overcoming the prior art, or if there appears to be something the applicant is missing, note that and suggest an amendment. It would be helpful if this type of feedback, often given in interviews, were provided in office actions. Suggestions provided in written responses would facilitate communication prior to a formal interview. (n=34)