

# Quality Survey for the United States Patent and Trademark Office

## **SEMI-ANNUAL REPORT FY22-Q1**



# Survey Reference Periods and Response Rates

Wave	Wave Name	Survey Reference Period	Response Rate (weighted)
20	FY14-Q1	October 2013 – December 2013	53%
21	FY14-Q3	April 2014 – June 2014	54%
22	FY15-Q1	October 2014 – December 2014	55%
23	FY15-Q3	April 2015 – June 2015	47%
24	FY16-Q1	October 2015 – December 2015	47%
25	FY16-Q3	May 2016 – July 2016	43%
26	FY17-Q1	November 2016 – January 2017	38%
27	FY18-Q1	October 2017 – December 2017	35%
28	FY18-Q3	May 2018 – July 2018	33%
29	FY19-Q1	October 2018 – December 2018	36%
30	FY19-Q3	May 2019 – July 2019	33%
31	FY20-Q1	October 2019 – December 2019	37%
32	FY20-Q3	May 2020 – July 2020	28%
33	FY21-Q1	October 2020 – December 2020	29%
34	FY21-Q3	May 2021 – July 2021	25%
35	FY22-Q1	October 2021 – December 2021	32%

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 “FY22-Q1”, for Quarter 1 of the 2022 fiscal year<sup>1,2</sup>.

<sup>1</sup> FY22-Q1 represents the 35<sup>th</sup> wave of data collection on the Quality Survey since 2006.

<sup>2</sup> 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 2021 to update the list of “top filing” firms/entities. FY22-Q1 was the first launch using the new frame.
- The sample size of FY22-Q1 was approximately 3,100 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 FY22-Q1, 96% of eligible customers completing the survey chose to respond via the web<sup>1</sup>.

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<sup>1</sup> Since the inception of the Quality Survey in 2006, 83% of eligible customers have chosen to respond via the web.



# Main Findings

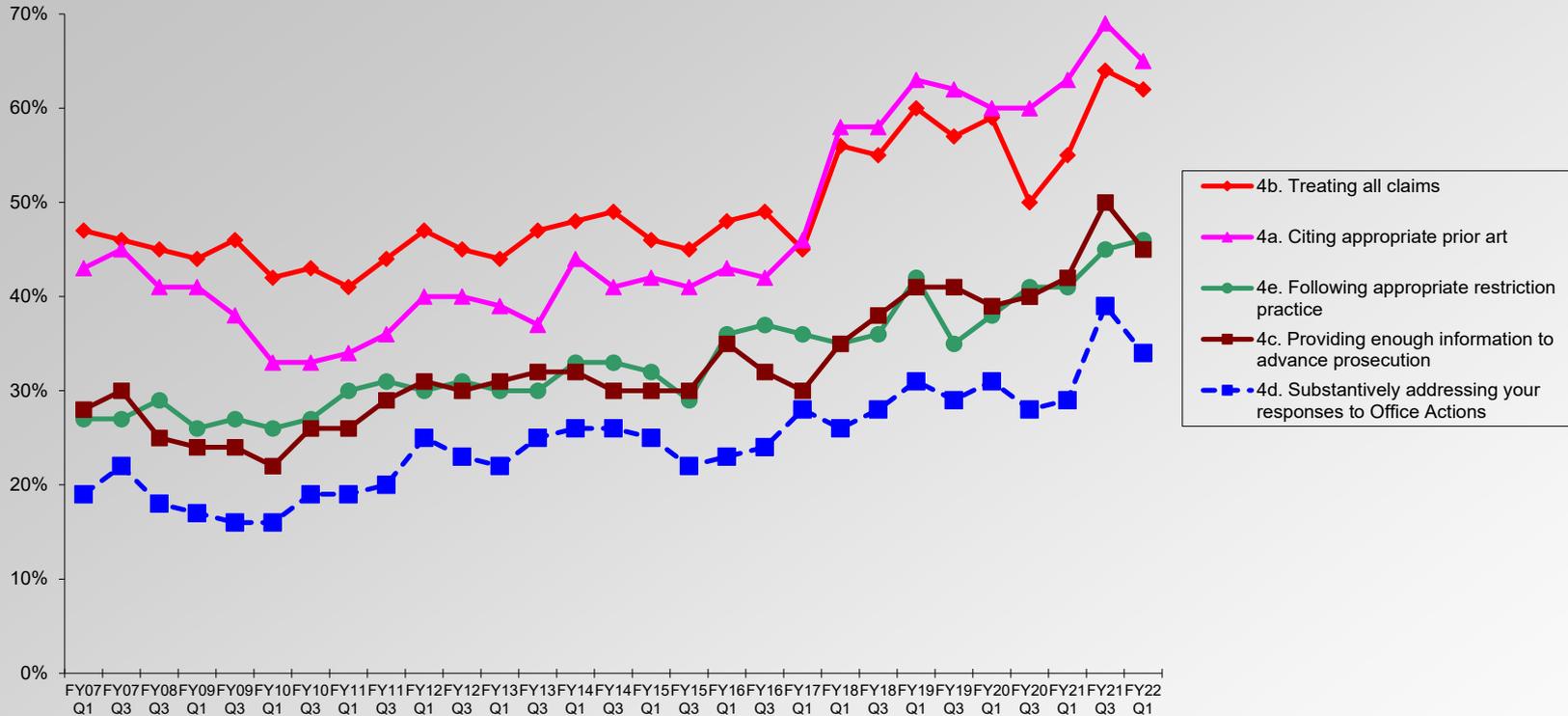
- In FY22-Q1, customers' ratings of overall examination quality remained positive with most reporting "slight or significant improvement." There was a non-significant decrease in ratings of overall examination quality where ratings of "good" or "excellent" decreased from 65% to 62%, and ratings of "poor" or "very poor" non-significantly decreased from 6% to 5% [Slide 22]. There were non-significant decreases 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," and lowest for "substantively addressing responses to Office Actions" [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 ratings were lower [Slide 11].
- For quality of prior art [Slide 21] and the overall examination quality [Slide 24], customers reporting "poor/very poor" quality or "good/excellent" quality were not statistically significant across different technology fields.
- For 101 rejections, customers in chemical fields and mechanical fields reported higher ratings for *Consistency* than those in electrical fields [Slide 12]. For 102 rejections, customers' ratings did not differ significantly across technology fields [Slide 13]. For 103 rejections, in terms of *Consistency*, customers in mechanical fields reported higher ratings than those in chemical or instruments fields; and those in electrical fields reported higher ratings than those in the instruments fields [Slide 14]. For 112a rejections, customers in mechanical fields reported higher ratings for *Correctness* than electrical and instruments fields, and higher ratings of *Consistency* than those in electrical field [Slide 16]. For 112b rejections, customers in mechanical fields reported higher ratings for *Clarity* than those in the chemical fields, and higher *Consistency* ratings than those in electrical or instruments fields [Slide 17].
- The *Clarity* and *Consistency* of 102 rejections and *Clarity* of 103 rejections had the highest correlations with overall examination quality relative to other types of rejections. The *Clarity* and *Consistency* of 101 rejections, and *Correctness* of 112 (a) rejections, had the lowest correlations with overall examination quality [Slide 19].
- When asked what they would like incorporated into the application filing process to facilitate examination quality, respondents said 1) Pre-interviews; 2) Enhancements to the system for preparing IDSs; 3) Ability to file document features and color as intended; 4) Ability to suggest classification and assignment of applications; and 5) Other changes to address administrative and system issues [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 FY22-Q1, customers report greatest adherence to rules and procedures for “citing appropriate prior art” and for “treating all claims”.

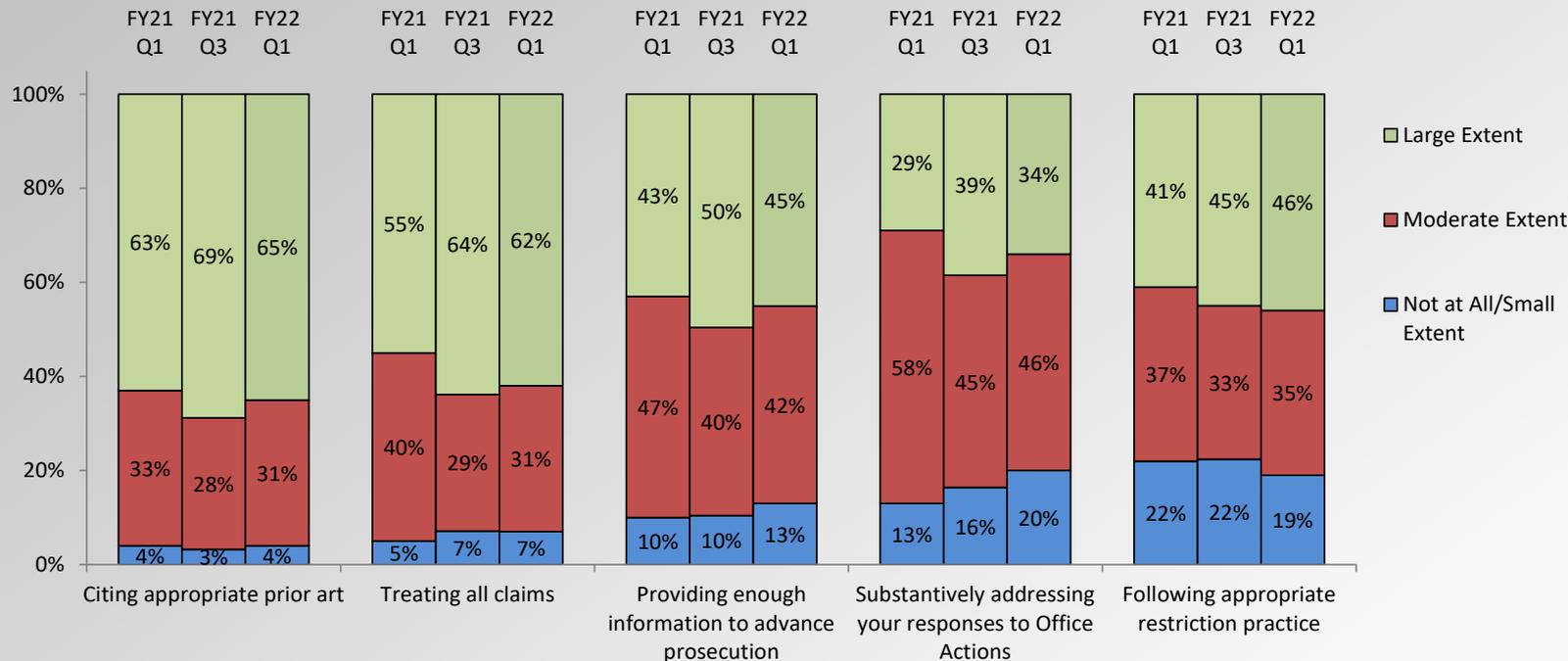
The percentages of customers reporting adherence to a “large extent” decreased from FY21-Q3 to FY22-Q1, except for “following appropriate restriction practice.” None of the changes are significant.

Note 1: For FY22-Q1, when “large extent” responses are compared across items 4a-4e, all comparisons are statistically significant at  $p < .001$  except 4a vs. 4b, and 4c vs. 4e, which are not significantly different.

Note 2: The typical confidence interval for these data is  $\pm 4.98\%$ .



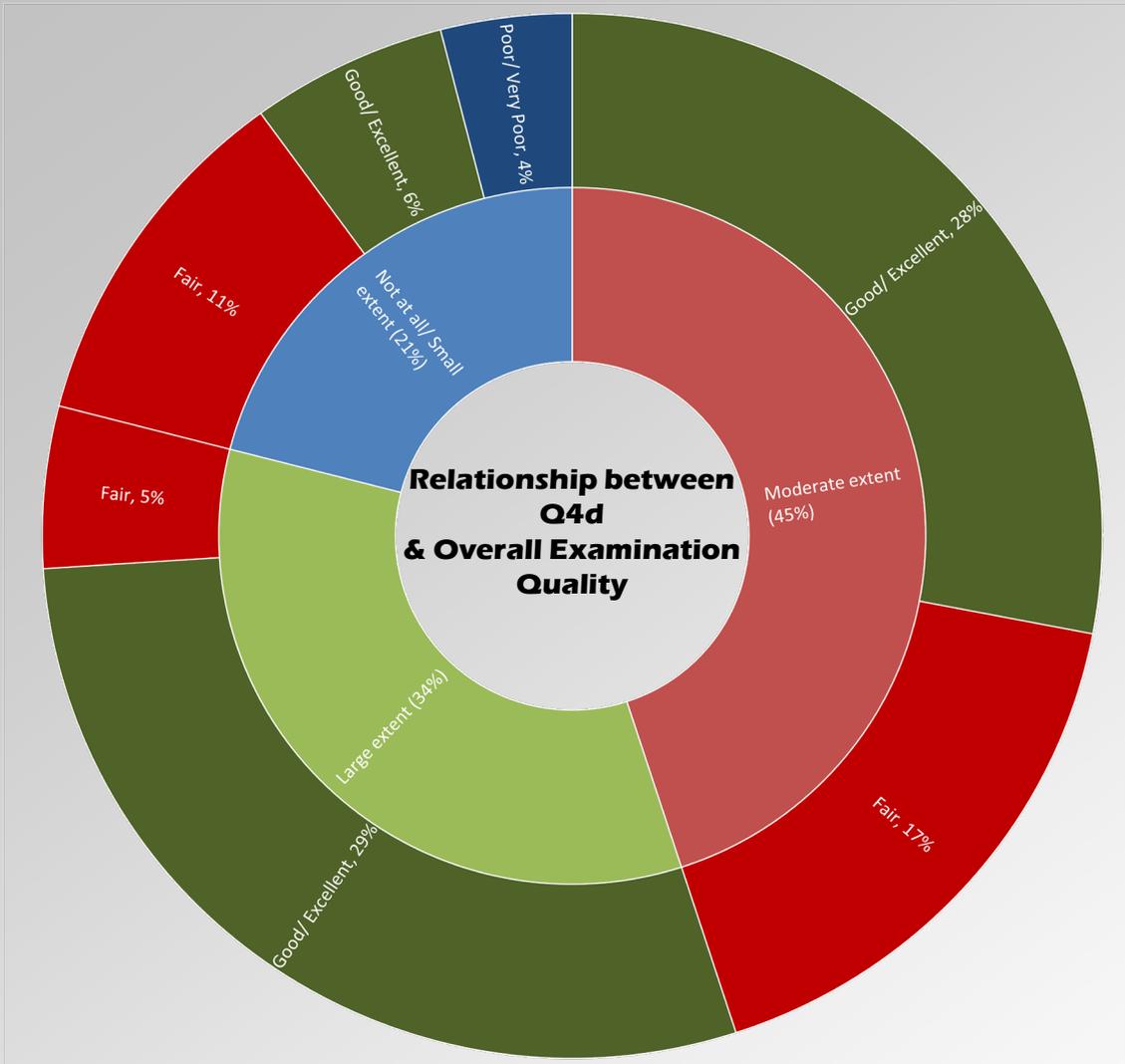
# Q4: Extent to Which Patent Examiners Adhere to Rules and Procedures



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, and provided enough information to advance prosecution to a “moderate” or “large extent.” Although still the majority, a slightly smaller proportion reported the Examiners substantively addressed responses to Office Actions and followed appropriate restriction practice to a “moderate” or “large extent.”



## Q4d by Overall Examination Quality (Q11)



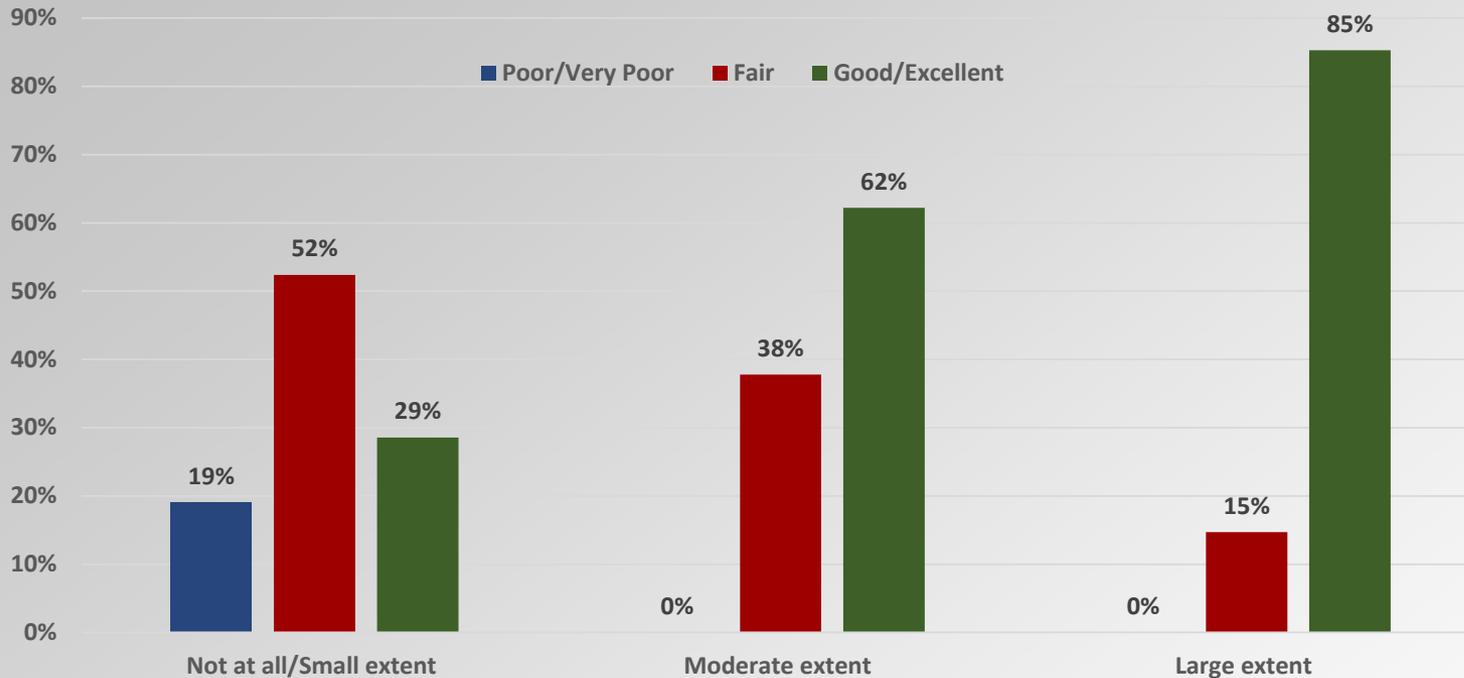
Among the respondents who reported the examiners were able to substantively address responses to Office Actions “not at all” or to a “small extent” (21%), the majority reported the overall examination quality as “fair” (11%), and a smaller portion reported “good/excellent” (6%), or “poor/very poor” (4%).

Among the respondents who reported examiners were able to substantively address responses to Office Actions to a “moderate extent” (45%), most reported the overall examination quality as “good/excellent” (28%) followed by “fair” (17%).

Among the respondents who reported examiners were able to substantively address responses to Office Actions to a “large extent” (34%), most reported the overall examination quality as “good/excellent” (29%). A smaller portion reported “fair” (5%).



## 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” (52%), and a smaller portion reported “good/excellent” (29%), 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” (62%) followed by “fair” (38%). None reported “poor/very poor.”

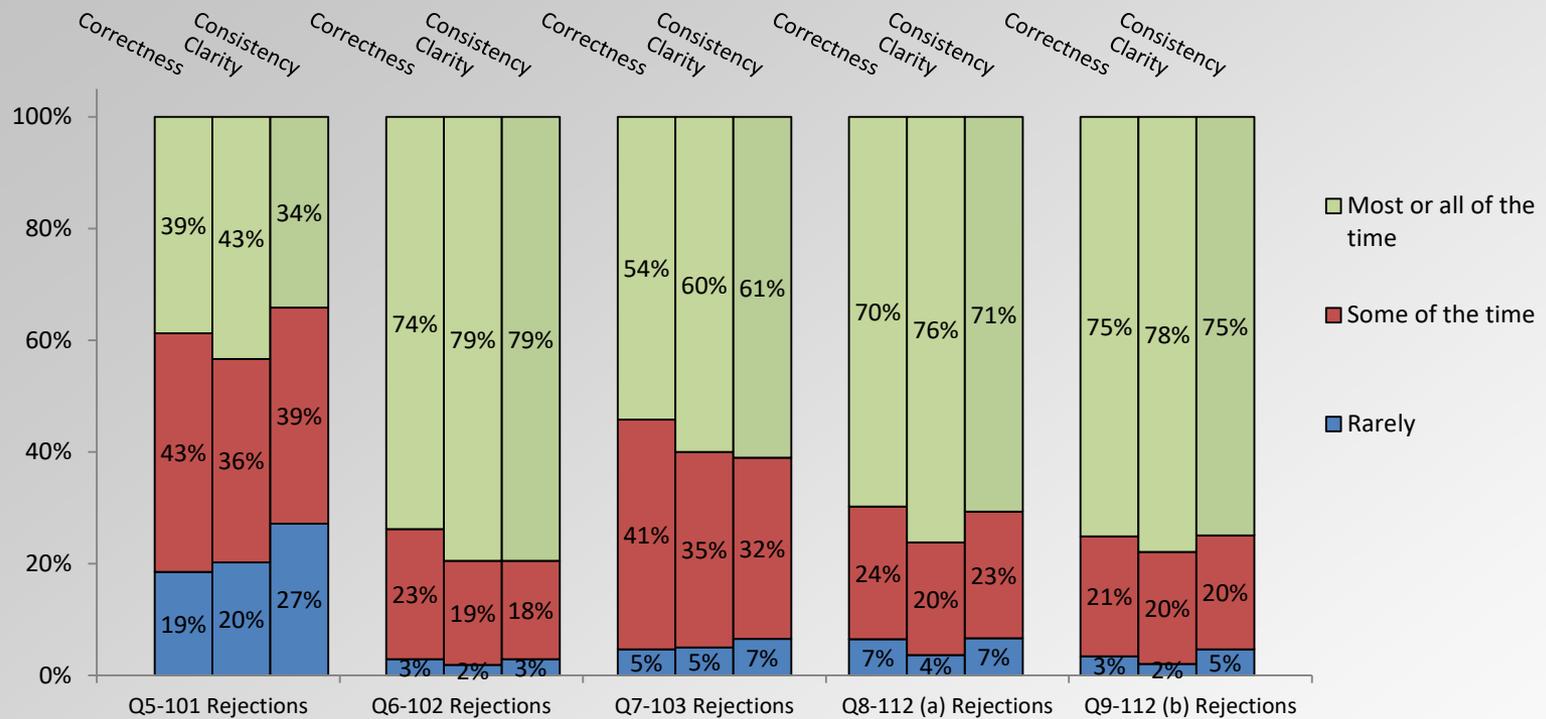
For the respondents who reported examiners were able to substantively address responses to Office Actions to a “large extent,” most reported the overall examination quality as “good/excellent” (85%). A smaller portion reported “fair” (15%).



# Correctness, Clarity & Consistency of Rejections



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

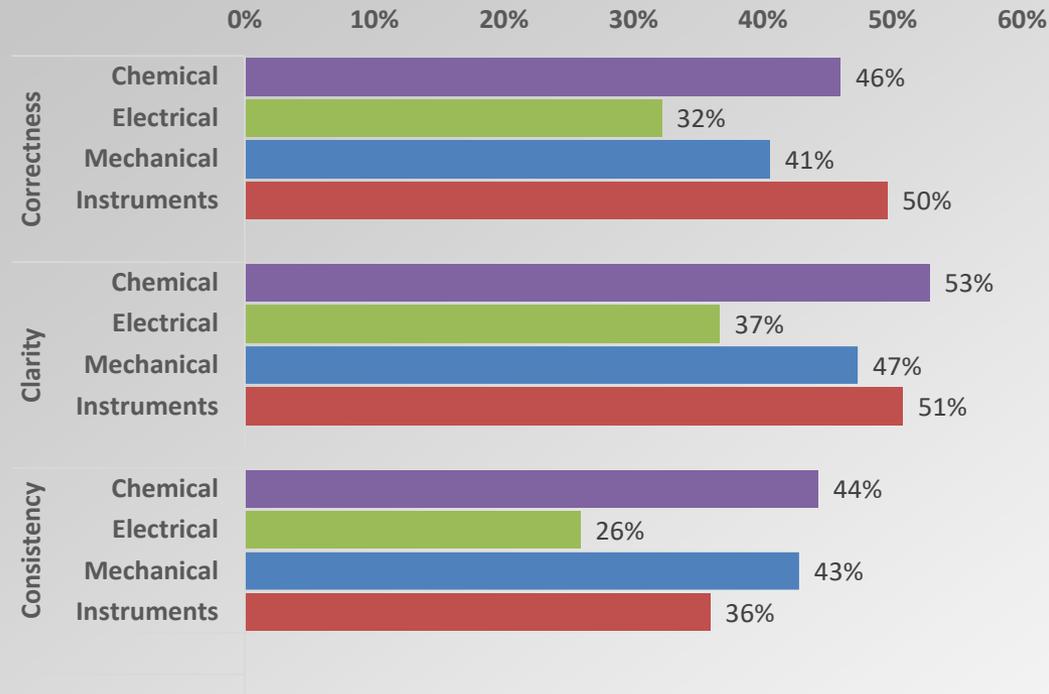


In FY22-Q1, customers who received 102 rejections were most likely to report that those rejections were reasonable in terms of Correctness, Clarity, and Consistency “most” or “all of the time”, relative to other types of rejections. Those who received 101 rejections were least likely to report that the rejections were reasonable in terms of Correctness, Clarity, and Consistency “most” or “all of the time.”

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



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



In FY22-Q1, for 101 rejections, the proportion of customers reporting Correctness “most/all of the time” was the highest in instruments field (50%), medium in chemical field (46%) and mechanical field (41%), and lower in the electrical field (32%). None of the differences are significant.

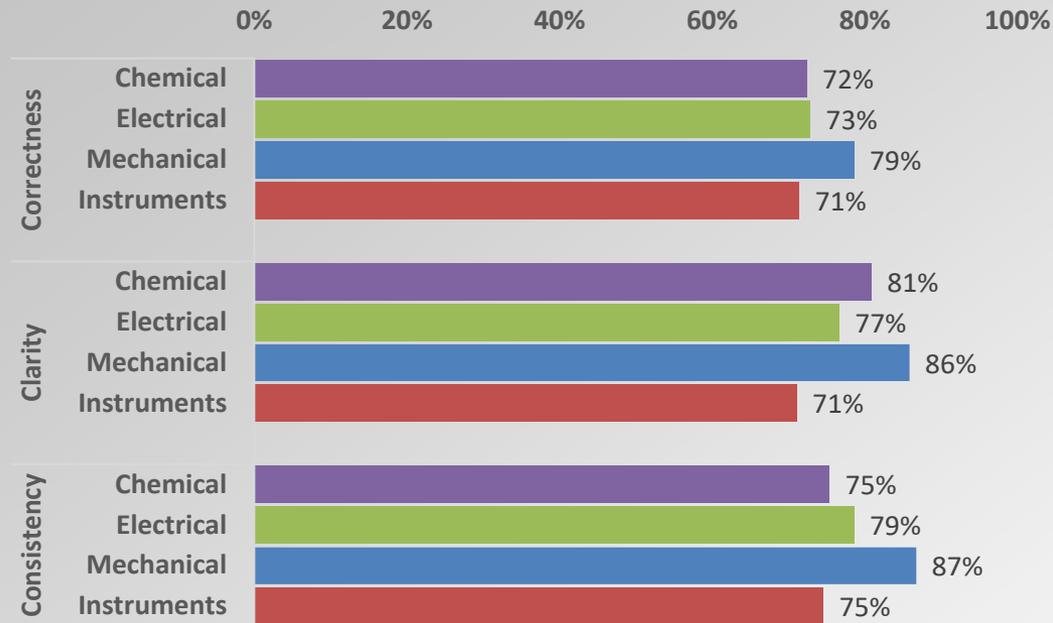
The proportion reporting Clarity “most/all of the time” was highest in chemical field (53%), followed by instruments field (51%), mechanical field (47%), and electrical field (37%). None of the differences are significant.

The proportion of customers reporting Consistency “most/all of the time” was highest in chemical (44%) and mechanical field (43%), followed by instruments field (36%), and electrical field (26%). The chemical field and mechanical fields are both significantly higher than electrical field.

Note: For Consistency of rejection, chemical vs. electrical ( $p=0.0032$ ), electrical vs. mechanical ( $p=0.0034$ ). Bonferroni adjustment is used to adjust the alpha due to multiple comparison test.



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



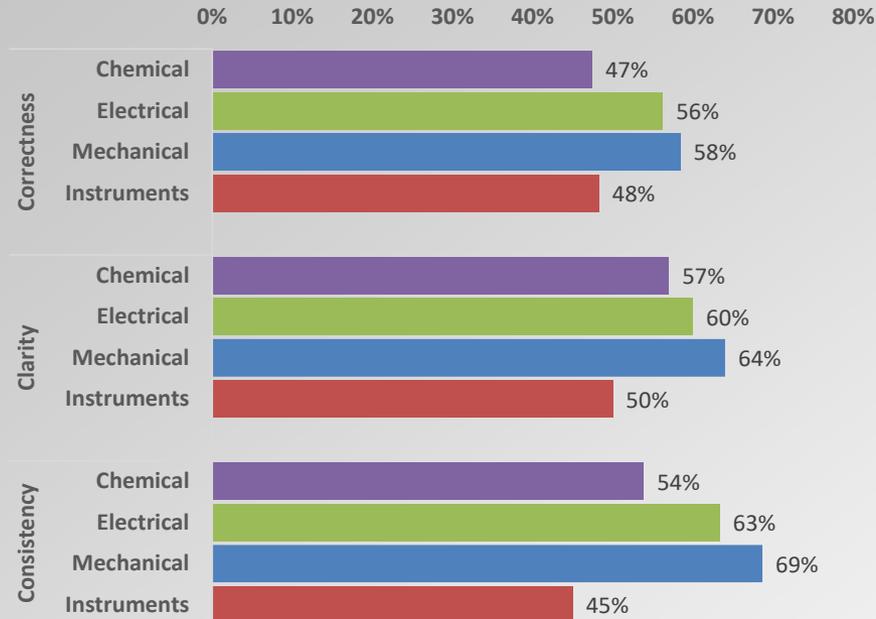
In FY22-Q1, for the 102 rejections, the proportions of customers reporting Correctness “most/all of the time” was higher in mechanical (79%) than electrical (73%), instruments (71%) and chemical fields (72%). None of the differences are statistically significant.

The proportion of customers reporting Clarity “most/all of the time” was non-significantly lower in instruments field (71%), compared with the other three fields: chemical field (81%), electrical field (77%), and mechanical field (86%).

The proportion of customers reporting Consistency “most/all of the time” was highest in the mechanical field (87%), followed by the electrical field (79%), instruments field (75%), and chemical field (75%). None of the differences are statistically significant.



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



In FY22-Q1, for the 103 rejections, customers in the mechanical field were most likely to report Correctness, Clarity, and Consistency “most/all of the time” as compared to those in the chemical, electrical, and instruments fields. Specifically the proportion of customers reporting Correctness “most/all of the time” was the highest in the mechanical field (58%), followed by electrical field (56%), and lowest in chemical (47%) and instruments fields (48%). None of the differences are statistically significant.

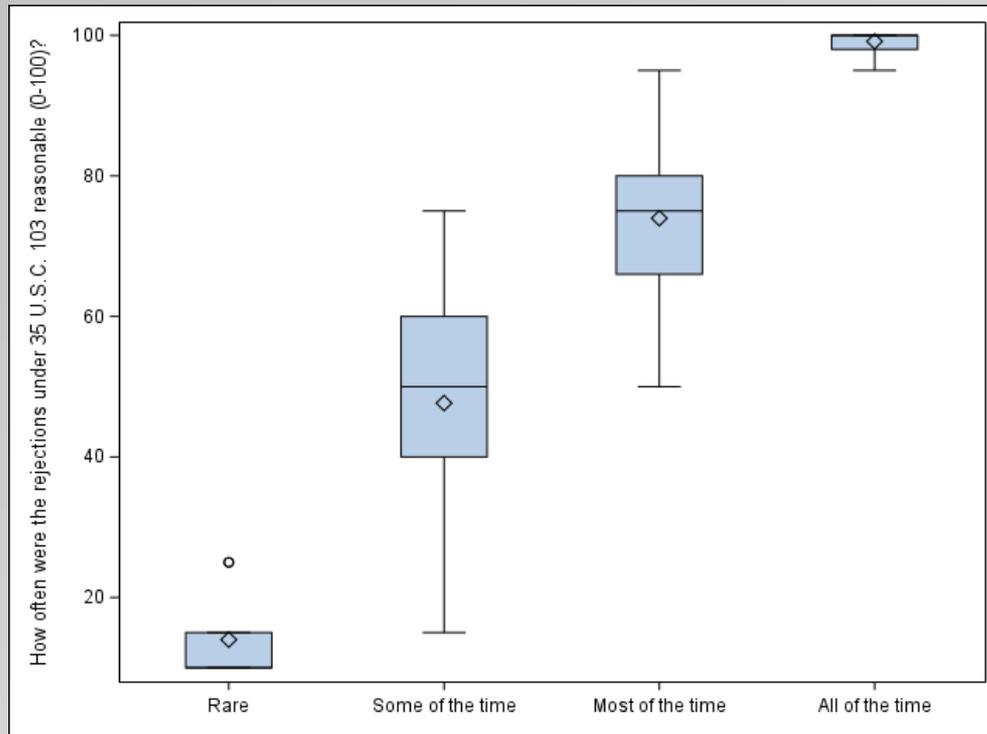
The proportion of customers reporting Clarity “most/all of the time” was the highest in the mechanical field (64%), which was higher than the other three fields (chemical 57%, electrical 60% and instruments 50%). None of the differences are statistically significant.

The proportion of customers reporting Consistency “most/all of the time” was the highest in mechanical field (69%), followed by the electrical field (63%), chemical field (54%), and the instruments field (45%). The proportion in the mechanical field is significantly higher than chemical and instruments fields. Also, the electrical field is significantly higher than instruments field.

Note: For Consistency of rejection, chemical vs. mechanical ( $p=0.007$ ); electrical vs. instruments ( $p=0.0046$ ); mechanical vs. instruments ( $p=0.0008$ ).



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



In FY22-Q1, 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 14, with a standard error of 2.4. The median is around 10 with the lower quartile at 10 and upper quartile at 14. There are two outlier responses of 25.

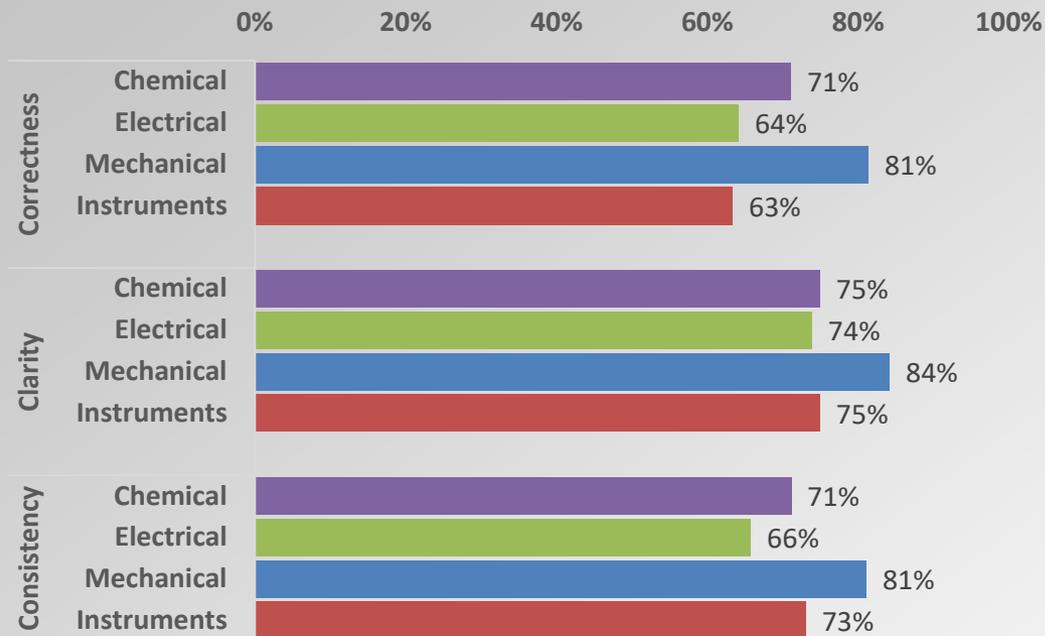
The weighted mean response among the respondents who selected “Some of the time” is around 48, with a standard error of 2.5. The median is around 49 with the lower quartile at 35 and upper quartile at 54.

The weighted mean response among the respondents who selected “Most of the time” is around 74, with a standard error of 1.6. The median is around 75 with the lower quartile at 66 and upper quartile at 79.

The weighted mean response among the respondents who selected “All of the time” is around 99, with a standard error of 1.0. The median is around 98 with the lower quartile at 98 and upper quartile at 99.



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



In FY22-Q1, for the 112a rejections, customers in mechanical field were most likely to report Correctness, Clarity, and Consistency “most/all of the time” as compared to those in the chemical, electrical and instruments fields. Specifically, the proportion of customers reporting Correctness “most/all of the time” was the highest in mechanical field (81%), followed by chemical (71%). Mechanical was significantly higher than the electrical field (64%) and instruments field (63%).

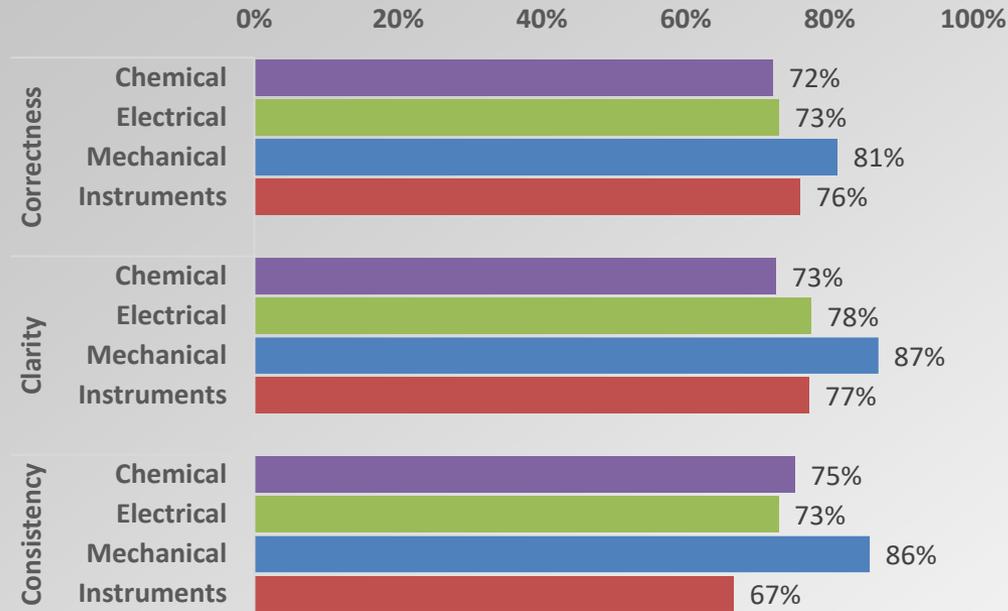
The proportion of customers reporting Clarity “most/all of the time” was the highest in mechanical field (84%), followed by chemical (75%), Instruments (75%), and electrical (74%) fields. None of the differences are statistically significant.

The proportion of customers reporting Consistency “most/all of the time” was highest in mechanical field (81%), followed by instruments (73%) and chemical (71%) fields. The mechanical field is significantly higher than electrical field (66%).

Note: For Correctness of rejection, electrical vs. mechanical ( $p=0.0004$ ); mechanical vs. instruments ( $p=0.0058$ ).  
For Consistency of rejection, electrical vs. mechanical ( $p=0.0015$ ).



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



In FY22-Q1, for the 112b rejections, customers in mechanical field were most likely to report Correctness, Clarity, and Consistency “most/all of the time” as compared to those in chemical, electrical and instruments fields. Specifically, the proportion of customers reporting Correctness “most/all of the time” was highest in the mechanical field (81%), followed by the instruments field (76%). None of the differences are statistically significant.

The proportion of customers reporting Clarity “most/all of the time” was the highest in mechanical field (87%), higher than electrical (78%), instruments (77%), and chemical (73%) fields. The difference between the mechanical field and chemical field is significant.

The proportion of customers reporting Consistency “most/all of the time” was the highest in mechanical field (86%), higher than chemical (75%), electrical (73%), and instruments (67%) fields. The proportion in the mechanical field is significantly higher than electrical and instruments fields.

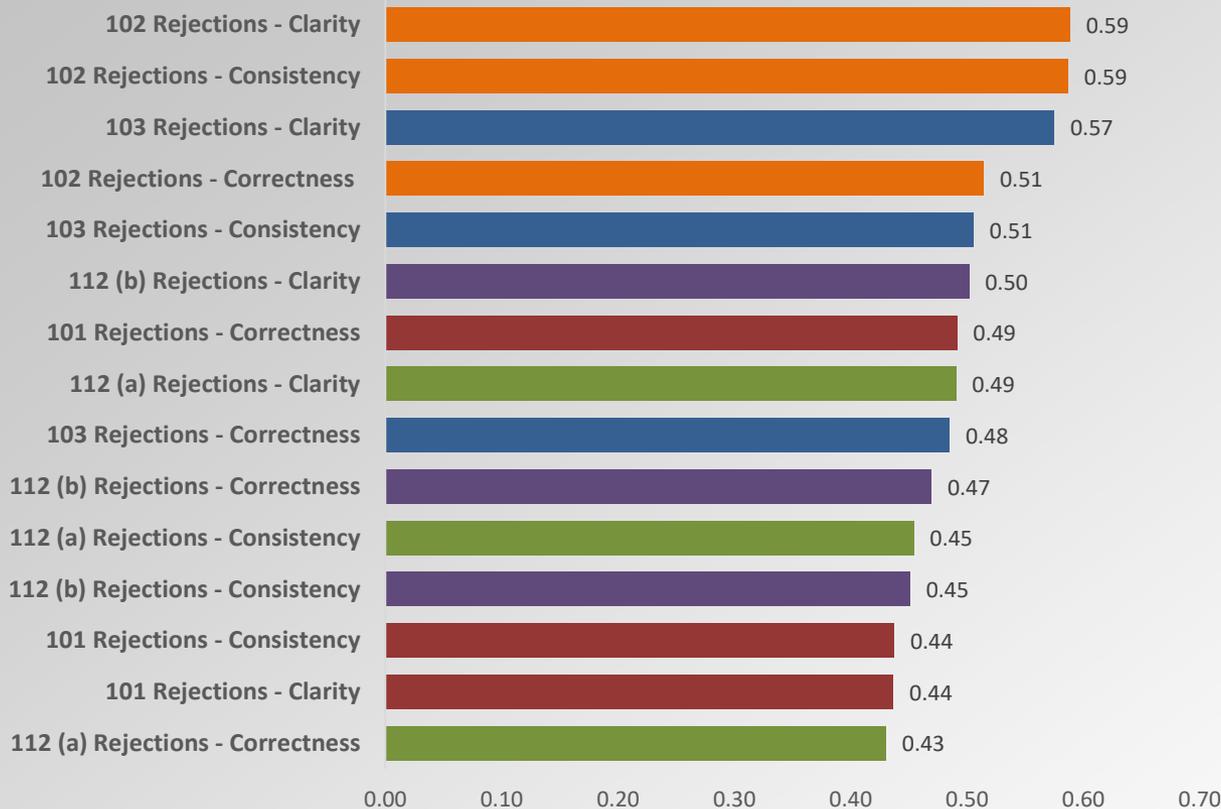
Note: For Clarity of rejection, chemical vs. mechanical ( $p=0.0022$ ).  
For Consistency of rejection, electrical vs. mechanical ( $p=0.0037$ ), instruments vs. mechanical ( $p=0.0017$ ).



# 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.

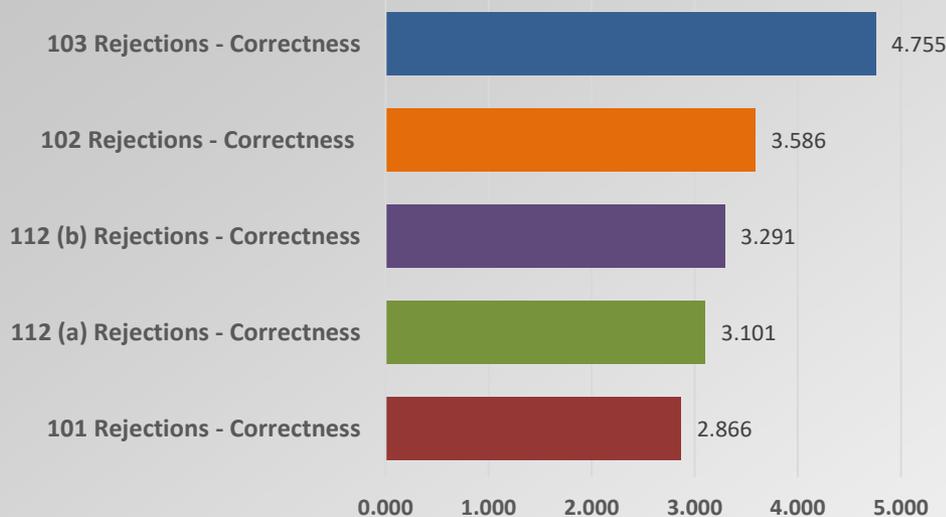
In general, the 102 rejections (Clarity and Consistency) and 103 rejections (Clarity) were found to have the highest correlations with overall examination quality.

Ratings of 112(a) rejections (Correctness) and 101 rejections (Consistency, Clarity) were found to have the lowest correlations with overall examination quality.

Note: The polychoric correlation measures the correlation between the two latent variables embedded under the two ordered variables (i.e. 5-category overall examination quality, 4-point rejection items), ranging from -1 to 1, with higher correlation indicating stronger correlation.



# 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.

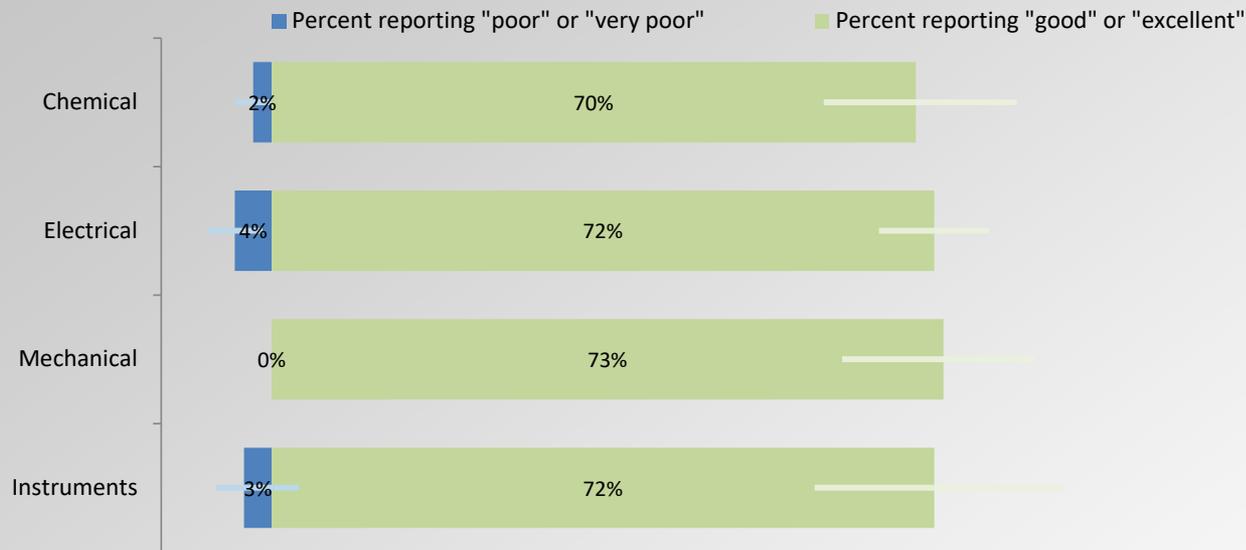
The 103 rejections were found to have the highest odds ratio against Overall Examination Quality. That is, if a respondent rated the 103 rejections to be correct “most/all the time”, the respondent is 4.8 times more likely to rate the Overall Examination Quality as “good/excellent.”

The 101 rejections were found to have the lowest odds ratio (2.9) compared with other rejections.

Note: replicate weights with jackknife estimation were used in the weighted logistic regression models.



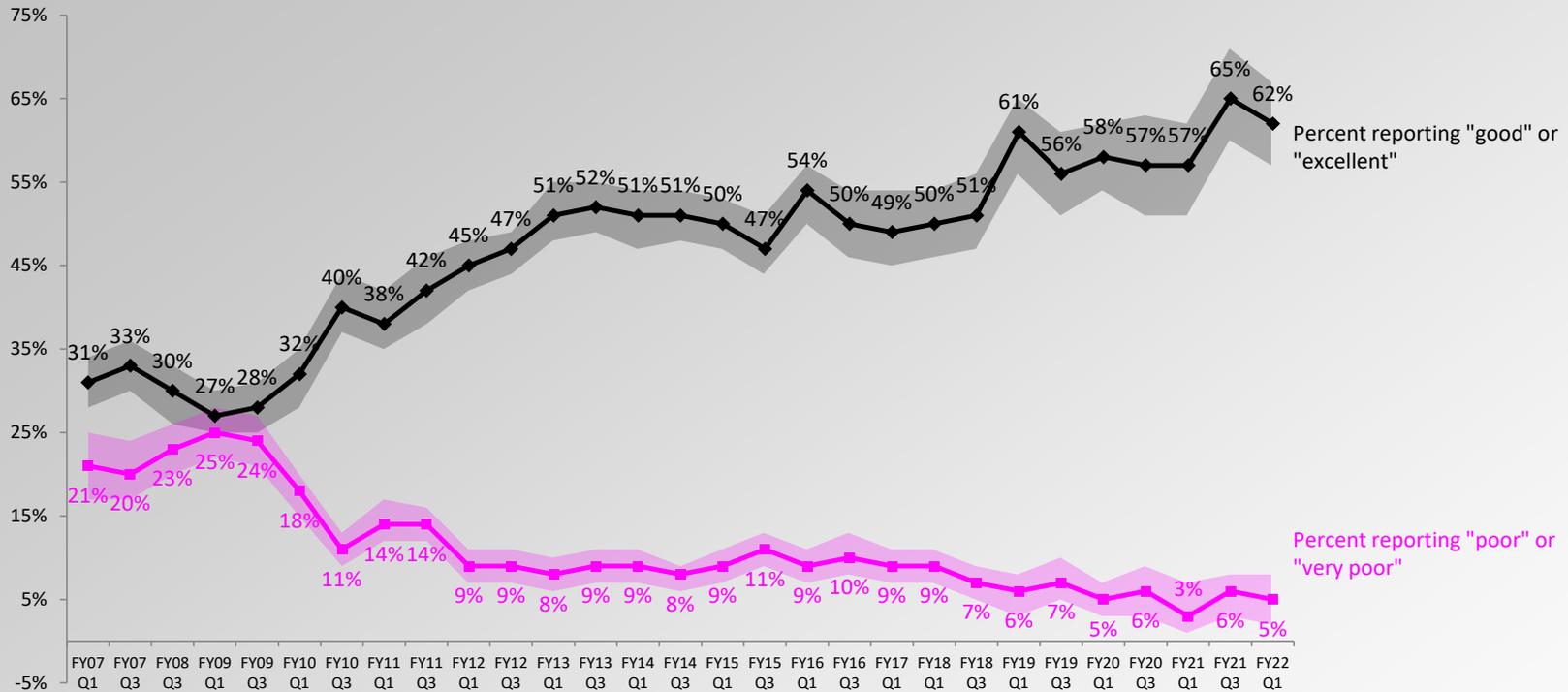
## Q10: Percent Reporting “Good” or ‘Excellent” Quality of Prior Art by Technology Field (Q2)



These results show that in FY22-Q1 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 mechanical field (73%) were more likely to report “good” or “excellent” than customers in the chemical field (70%), electrical field (72%) and instruments field (72%). There was a larger proportion of customers in the electrical field (4%) who reported “poor” or “very poor” compared with the chemical (2%), mechanical (0%) and instruments (3%) fields. The difference are not statistically significant.



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



Between FY21-Q3 and FY22-Q1, the percentage of customers reporting that overall examination quality was “poor” or “very poor” decreased non-significantly from 6% to 5%, and the percentage of customers reporting that overall examination quality was “good” or “excellent” decreased non-significantly from 65% to 62%.

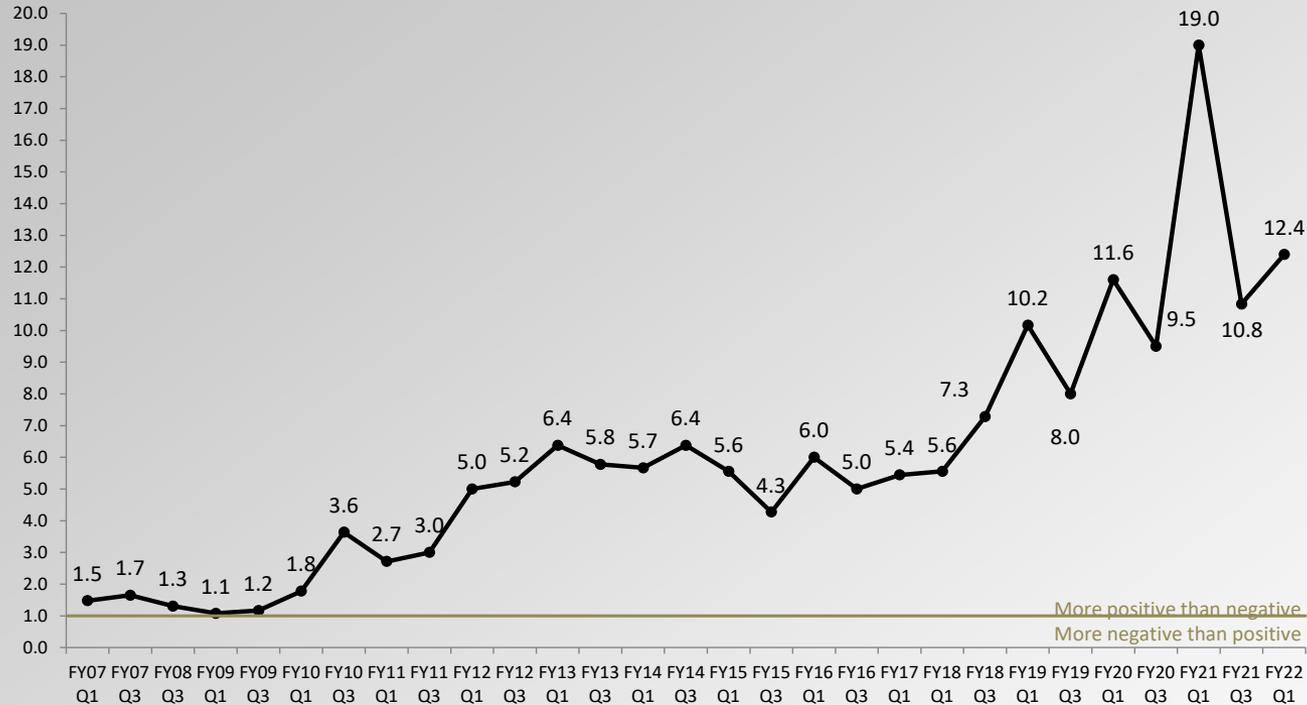
In FY22-Q1, more than six in ten customers reported the overall examination quality was “good” or “excellent” and less than one in ten customers reported that overall examination quality was “poor” or “very poor.”

Note 1: The gray and pink areas around the lines represent the 95% upper and lower confidence interval limits for the percents reported.

Note 2: Q11 in Wave 27 and later was numbered as Q8 in Wave 25 and Wave 26, and Q7 in earlier waves.



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

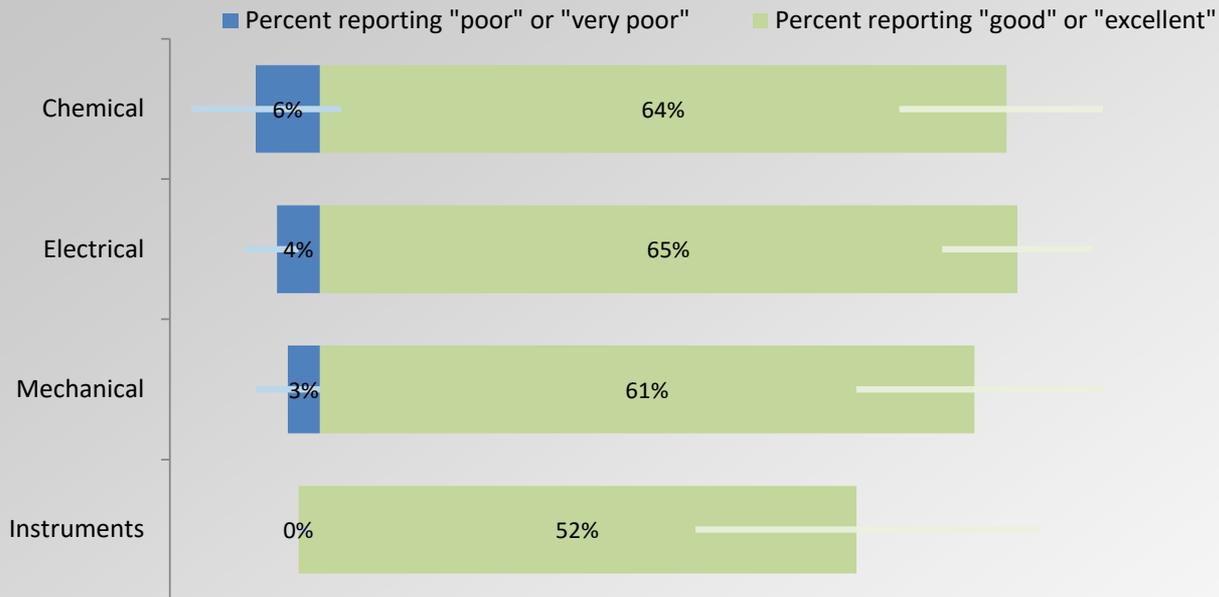


This line graph illustrates the ratio of positive to negative ratings of overall examination quality. The horizontal line at 1.0 represents the reference line of when that ratio is equal to 1. The graph shows that this positive-to-negative ratio increased non-significantly between FY21-Q3 and FY22-Q1 from 10.8 to 12.4.

In FY22-Q1, for every customer that rated overall examination quality as “poor” or “very poor”, more than 12 customers rated it as “good” or “excellent.”



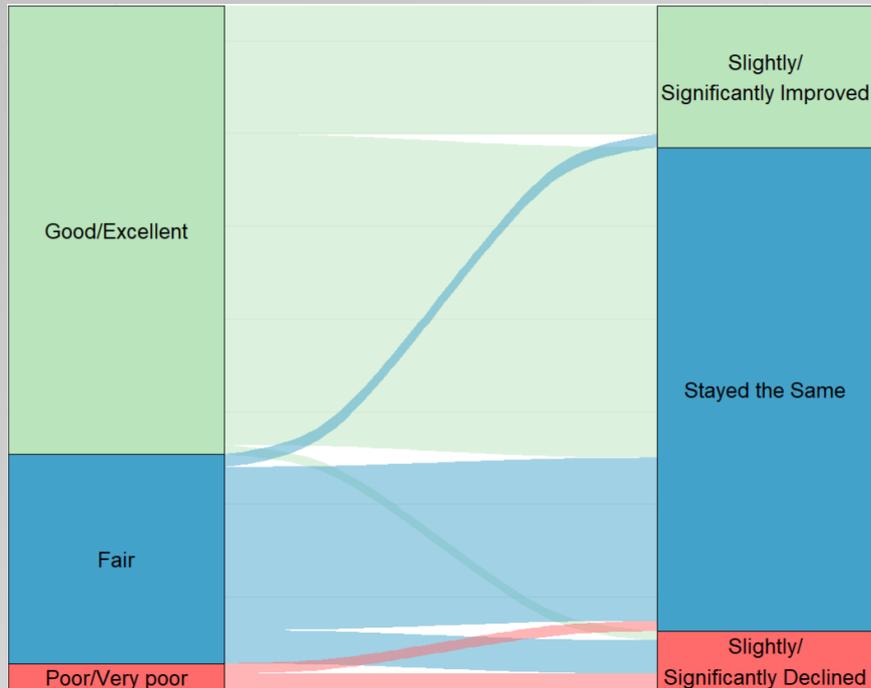
# Q11: Percent Reporting “Good” or ‘Excellent’ Overall Examination Quality (Q11) by Technology Field (Q2)



These results show that in FY22-Q1 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 a larger proportion of customers in the electrical field (65%) and chemical field (64%) who reported “good” or “excellent” compared with the other two fields, mechanical (61%), instruments (52%), and a larger proportion of customers in the chemical field (6%) who reported “poor” or “very poor” compared with electrical (4%), mechanical (3%) and instruments (0%) fields. The differences are not statistically significant.



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



Q11	Q12	Weighted Percent
Good/ Excellent	Slightly/Significantly Improved	16.4
	Stayed the Same	44.6
	Slightly/Significantly Declined	1.0
	<b>Total</b>	<b>62.0</b>
Fair	Slightly/Significantly Improved	2.0
	Stayed the Same	25.3
	Slightly/Significantly Declined	5.4
	<b>Total</b>	<b>32.7</b>
Poor/ Very Poor	Slightly/Significantly Improved	0.0
	Stayed the Same	2.5
	Slightly/Significantly Declined	2.8
	<b>Total</b>	<b>5.3</b>
<b>Total</b>		<b>100</b>

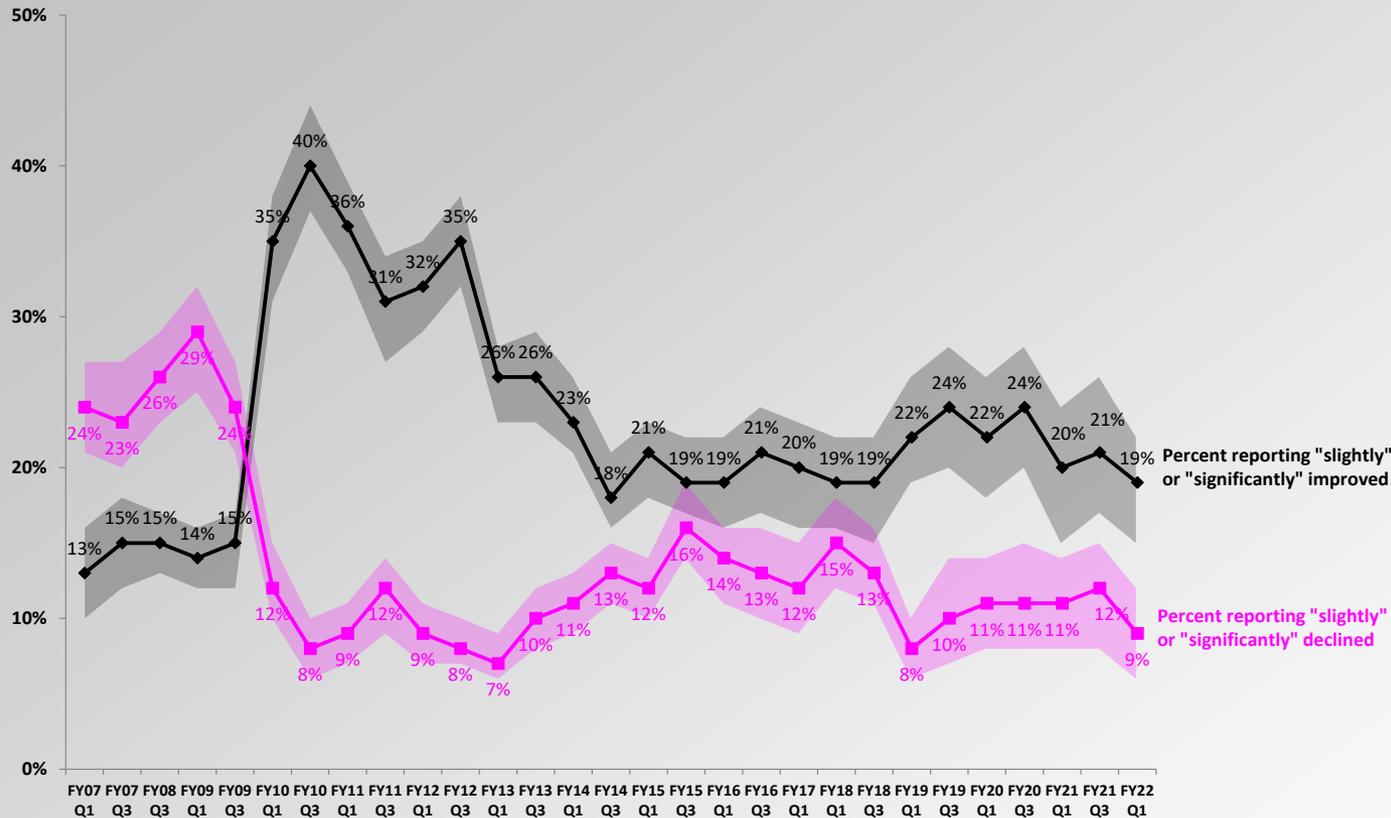
The plot and table show that in FY22-Q1, among respondents who rated the overall quality as “good/excellent” (62%), the majority reported that the quality “stayed the same” (44.6%) in the last 3 months. A smaller proportion reported that the quality “improved” (16.4%), and 1% reported the quality “declined.”

Among respondents who rated the overall quality as “fair” (32.7%), the majority reported that the quality “stayed the same” (25.3%). Smaller proportions reported that the quality “declined” (5.4%) or “improved” (2%).

Among respondents who rated the overall quality as “poor/very poor” (5.3%), most reported that the quality “declined” (2.8%) or “stayed the same” (2.5%). None reported “improved.”



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



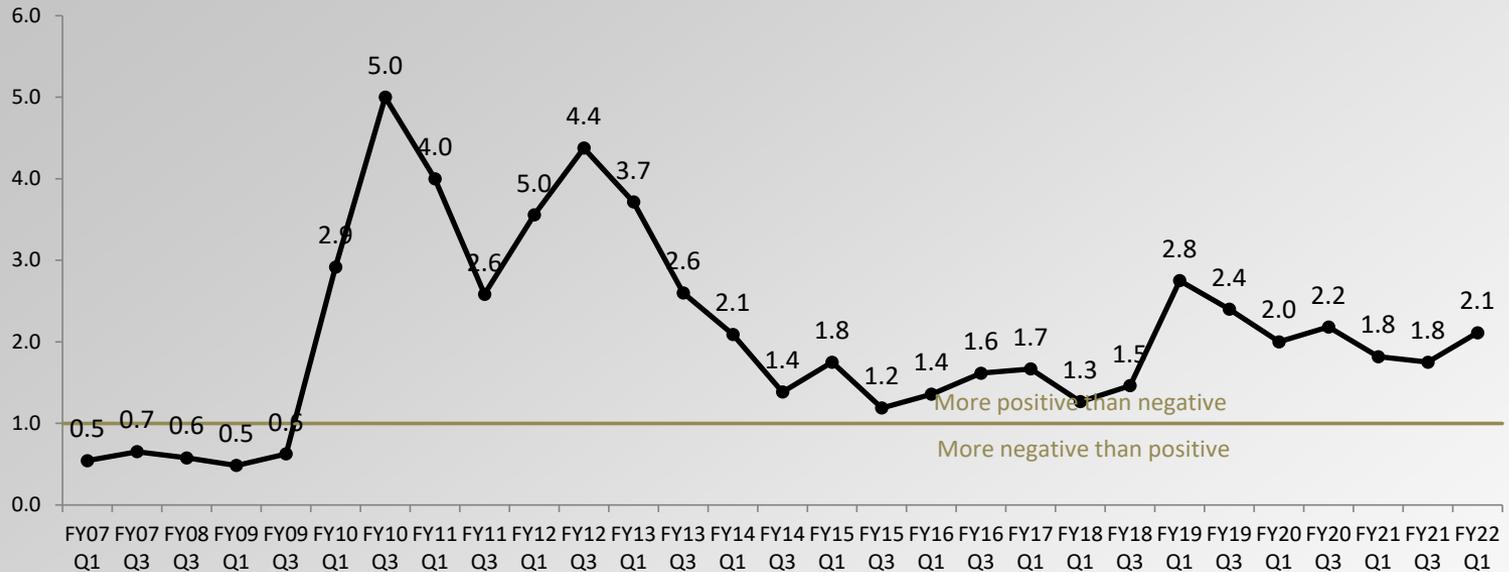
Since 2010, customers have been more likely to report that quality had “slightly or significantly improved”, than to report that quality had “slightly or significantly declined.”

From FY21-Q3 to FY22-Q1, the proportion reporting that examination quality “slightly or significantly improved” decreased from 21% to 19%, and the proportion reporting that the quality “slightly or significantly declined” decreased from 12% to 9%. Both decreases are non-significant.

Note: Q12 in Wave 27 and later was numbered as Q9 in Wave 25 and Wave 26, and Q8 in earlier waves.



## 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 increased non-significantly from FY21-Q3 (1.8) to FY22-Q1 at 2.1.

In FY22-Q1, for every customer that rated examination quality as “slightly” or “significantly declined”, more than two customers rated it as “slightly” or “significantly improved.”



### **Q13: What, if anything, would you like incorporated as part of the application filing process to facilitate examination quality?**

Following are the most frequent themes related to the filing process revealed in the findings:

**Pre-interviews:** Some respondents suggested that applications require an initial interview before prosecution begins, or a better procedure to replace FAI. Allow the applicant to make a request when the application is filed, for example with a box to check on the ADS inviting examiners to discuss the application before the first office action. The examiner would set up an interview right after they study the application, but before an office action is prepared (but don't do this if the first action will be a requirement for restriction). One said the goal of the FAI was good but the examiners did not want to do another OA after handling the pre-interview communication. They recommended a pre-first action interview with no OA, making it just a chance to explain the invention beforehand. (n=11)

**Enhance the System for Preparing IDSs:** Applicants complying with the rule must often cite large amounts of information, while examiners object to the large amount of references. Provide examiners with better tools for reviewing references. An enhancement could include an online site that automatically pulls bibliographic information for US patents and publications, or allows auto-fill IDS applications in families of cases. Create a repository of non-patent literature and foreign references for examiners to refer to during prosecution (for example a list that is updated weekly), and where applicants can see what is in it so they do not constantly upload the same documents. Another suggested a simplified system that would let applicants refer to citations stored in the Global Dossier. Some said to stop requiring copies of patent literature listed in the IDS, or to just get rid of the duty of disclosure, similar to the EPO, since most relevant information is available in digital format now. Applicants would not feel the need to submit thousands of pages of prior art. (n=10)

**Document Features and Color:** A filing system where all features of the document (underlining and table formatting) are rendered as intended, as with a PDF. The current WebADS is glitchy, requiring mark-up changes on a PDF of the ADS form. Some would like to work with MS Word files for filing, receiving office actions, formulating responses, and using track changes for amendments. They would like the ability to file color illustrations since information is lost switching to grayscale. Others want to submit drawings digitally, since the majority of all patent drawings are now digital photography. Printing digital drawings to file leads to color variation. When PTO sends out a color copy of the drawings, after being scanned digitally from the printed submission, another layer of variation is added to the final product. (n=7)

**Process to Classify and Assign Applications:** The new process for classifying applications and assigning examiners has reduced flexibility. Applicants would like to be able to suggest an art unit appropriate for examination, which would be more effective and timely. It is also more efficient to consolidate a group of related co-pending applications with one examiner or in one art unit. Some applications fall at the intersections of different technical disciplines, where the most significant aspect varies depending on the invention. One respondent would like a petition upon filing to request a new examiner for RCE, continuation, CIP and divisional practice. (n=7)

**Administrative and System Issues:** Permit a single PDF or docx file for the text portion of the application instead of 3 separate documents; develop a claim drafting tool that is interactive with a prior art search; provide more than the docx class so applicants can better understand the new system for submissions; and provide better instructions both before and during the filing process. One respondent said applicants are not notified of sequence listing errors in a timely way, especially in substitute SLs. When new errors are detected in a substitute SL, they want a timely new notice that resets the time period. Also, since Checker does not detect all sequence listing errors, a publically provided software to comprehensively identify SL errors would help. Another asked that PTO provide an estimate of the expected time to receive the first Office Action without applicants having to do a separate PAIR request. (n=7)

Note: The final open-ended has been revised several times over the life of the Quality Survey (see previous reports for prior question wording).  
Wave 34: Comments about how patent examiners can improve their responses to applicants to help advance prosecution.

