

**UNITED STATES  
PATENT AND TRADEMARK OFFICE**



# **PTAB Trial Statistics**

**FY20 End of Year Outcome Roundup**

**IPR, PGR, CBM**

## **APPENDIX**

Patent Trial and Appeal Board

Fiscal Year 2020

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# Appendix

This appendix, as well the main presentation, is available on PTAB's statistics webpage:

<https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/statistics>

## Appendix A: Motion to Amend Study (Installment 6, through March 31, 2020)

- Installment 6 of the Motion to Amend Study presenting statistics on motions to amend in AIA trials.
- Originally published in July 2020.

## Appendix B: Trial statistics by patent and by claims for FY19

- New AIA trial statistics describing institution rates and final outcomes on a by petition and by patent basis.
- Originally presented in a Board Side Chat on June 11, 2020.

## Appendix C: Methodology for FY20 Roundup Statistics

- Technical details of the methodology used in generating the FY20 Outcome Roundup graphics

# FY20 PTAB Outcome Roundup Takeaways

- Generally speaking regarding AIA petitions in FY2020:
  - **one-third** were **denied**
  - **one-third settled** or otherwise terminated
  - **one-third** resulted in a **final written decision**.
- AIA **institution rate** = about **56%** (out of all decisions on institution).
- Considering all Outcomes in AIA Proceedings in FY2020:
  - PTAB issued **508 final written decisions** addressing **413** different **patents**.
  - Less than **30% of challenged claims** were found **unpatentable** by a preponderance of the evidence in final written decisions.
  - Less than **40% of challenged patents** were addressed in a **final written decision** at all.

Please see main document for details.

# What's New?

- **PTAB updated its regularly-issued statistics presentations to show outcomes on a by-petition, by-patent, and by-claim basis.**
  - In this process, PTAB performed a thorough manual and computer-aided review of its data, upgraded its data integrity verifications, and corrected any data errors found during this process.
  - Outcome reporting will now proceed on a quarterly basis in slide decks called "outcome roundups."
- **The prior "waterfall" outcome slide is retired in favor of an easier-to-read pie chart. Accordingly, the prior outcome pie charts now include the "dismissed" category so that each type of case disposition is represented in the chart.**

# Questions? Comments? Suggestions?

We welcome your feedback.

Please direct questions, comments, or suggestions relating to this presentation, or other statistical or data-related matters to:

[PTABStatisticsQuestions@USPTO.GOV](mailto:PTABStatisticsQuestions@USPTO.GOV)

Please direct comments, questions, or suggestions relating to AIA proceedings in general to:

[PTABAIATrialSuggestions@USPTO.GOV](mailto:PTABAIATrialSuggestions@USPTO.GOV)



# Want to Know More About PTAB?

Please visit our website.

<https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board>

PTAB AIA Trials Website:

<https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials>

PTAB Statistics Website (updated monthly):

<https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/statistics>

PTAB Databases and Open Data (updated daily):

<https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/ptab-it-systems>



# Motion to Amend Study

(Installment 6, through March 31, 2020)

## **Appendix A**



# Patent Trial and Appeal Board Motion to Amend Study

Installment 6: Update through March 31, 2020

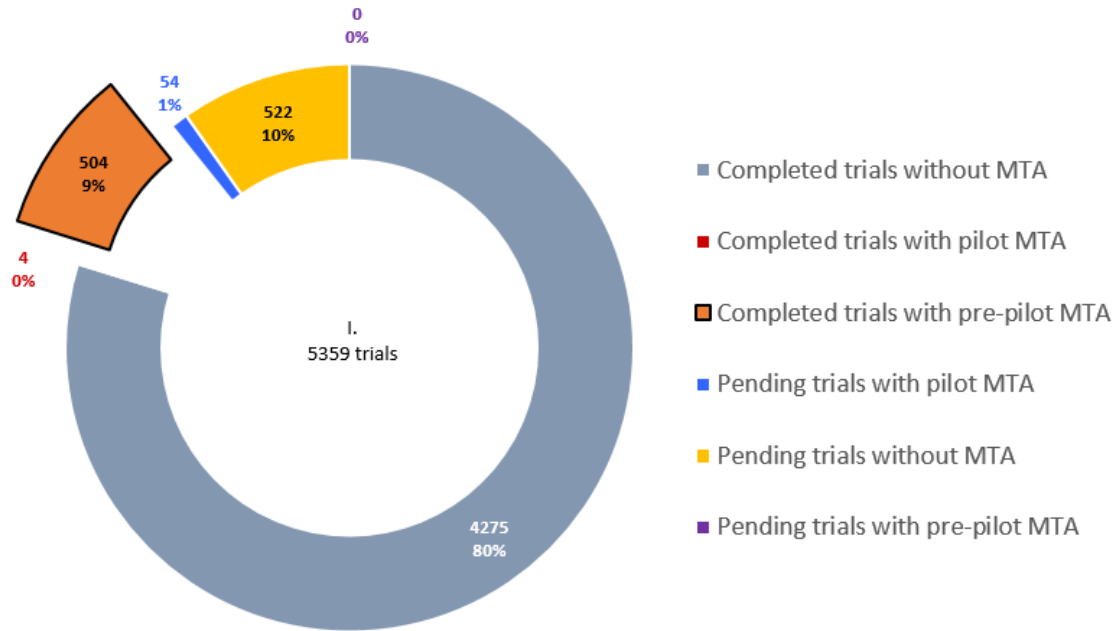
Pre-pilot program closeout

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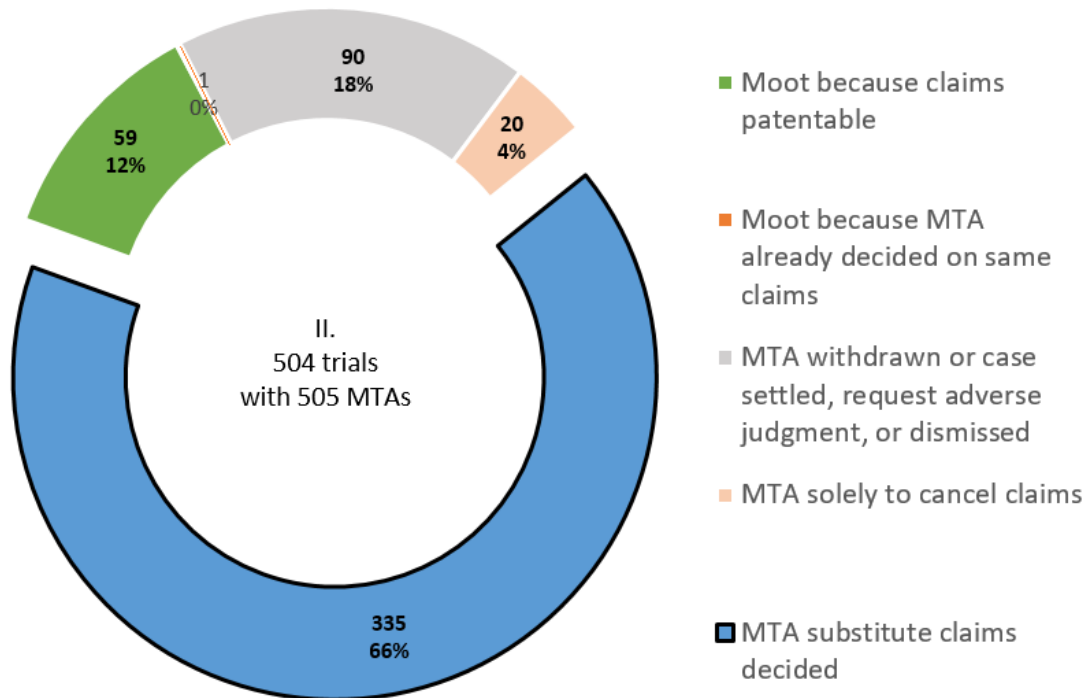
# Graph I: Number of motion to amend (MTA) filings (FY13 to FY20: Oct. 1, 2012 to Mar. 31, 2020)

In how many trials are MTAs filed?



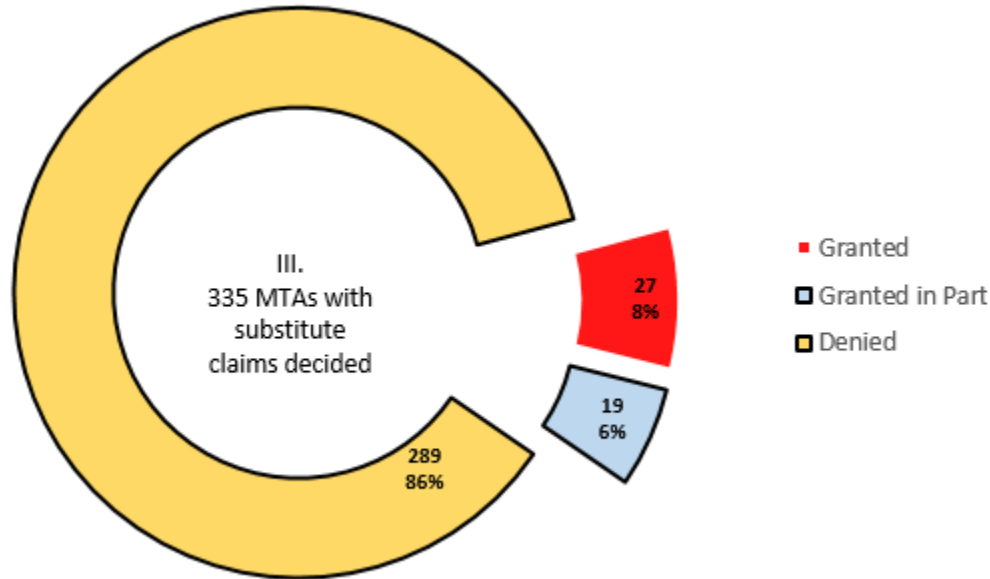
# Graph II: Subsequent developments of pre-pilot MTAs (FY13 to FY20: Oct. 1, 2012 to Mar. 31, 2020)

Subsequent developments of the MTAs

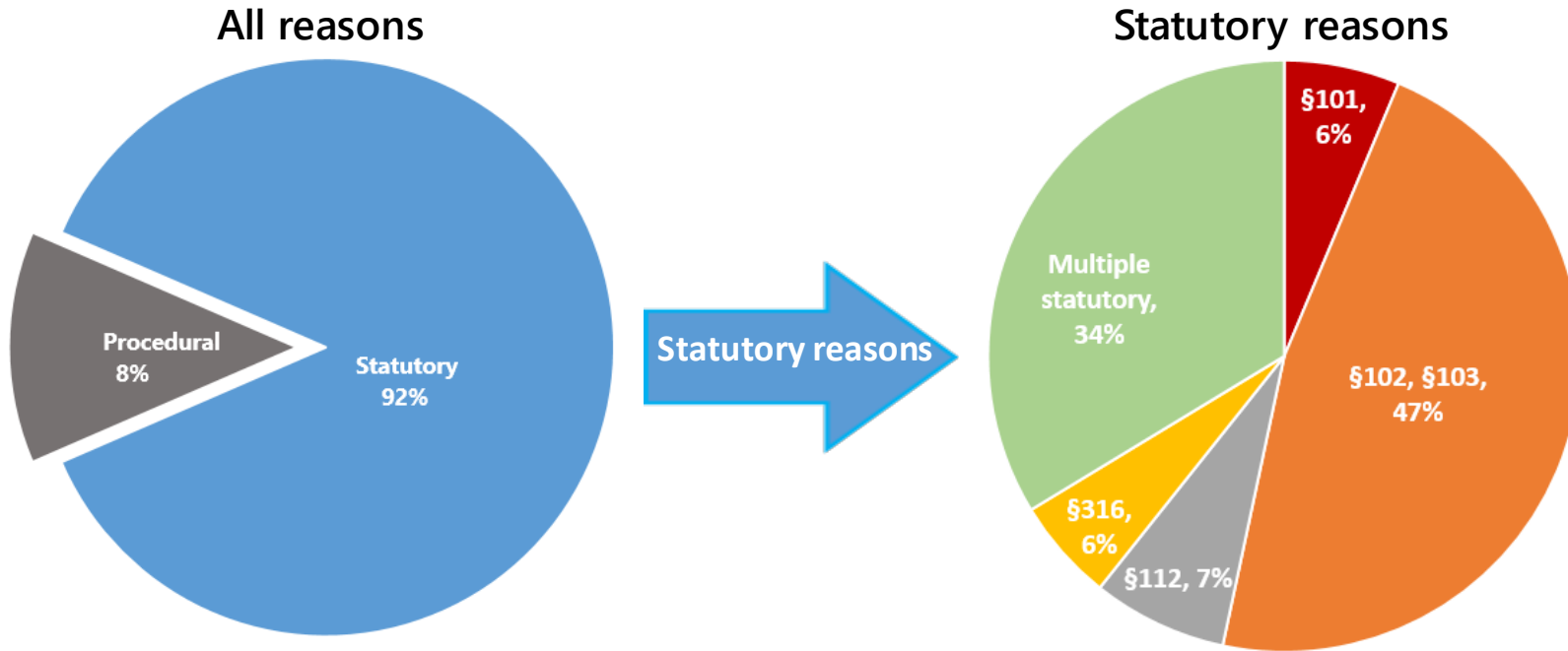


# Graph III: Disposition of pre-pilot MTAs (FY13 to FY20: Oct. 1, 2012 to Mar. 31, 2020)

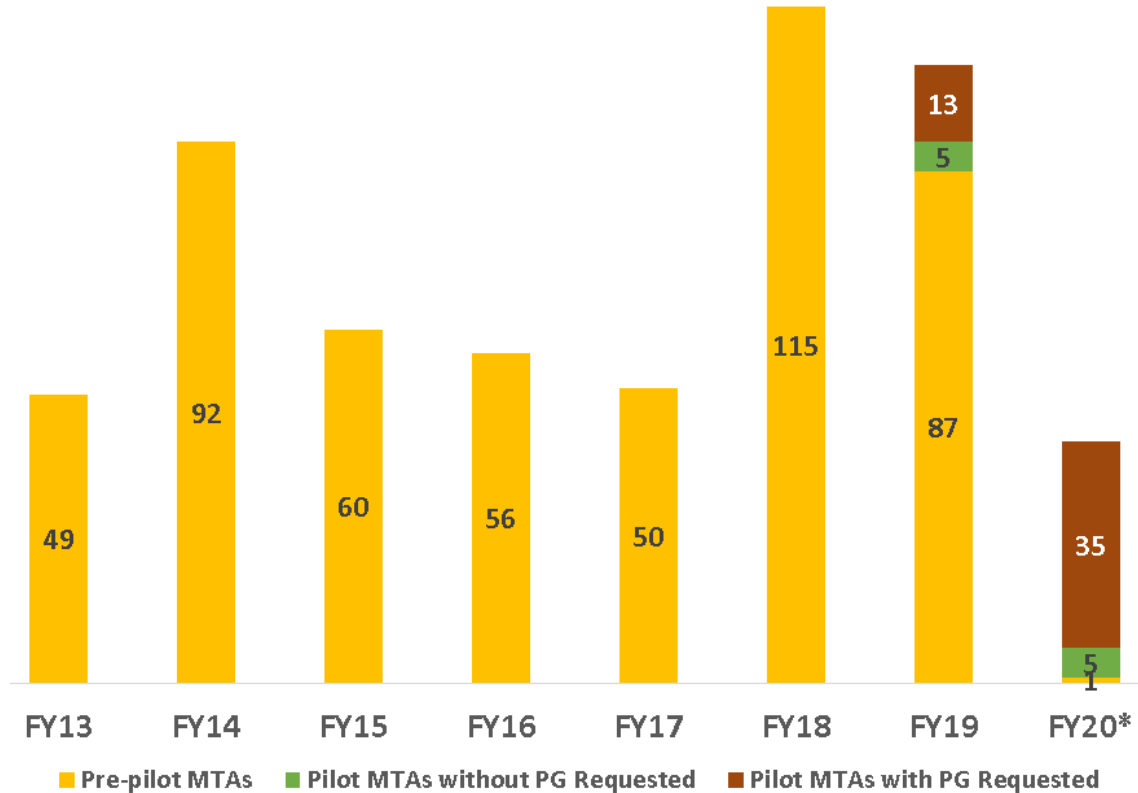
How many MTAs substituting claims are granted?



# Graph IV: Reasons for denying entry of substitute claims for pre-pilot MTAs (FY13 to FY20: Oct. 1, 2012 to Mar. 31, 2020)



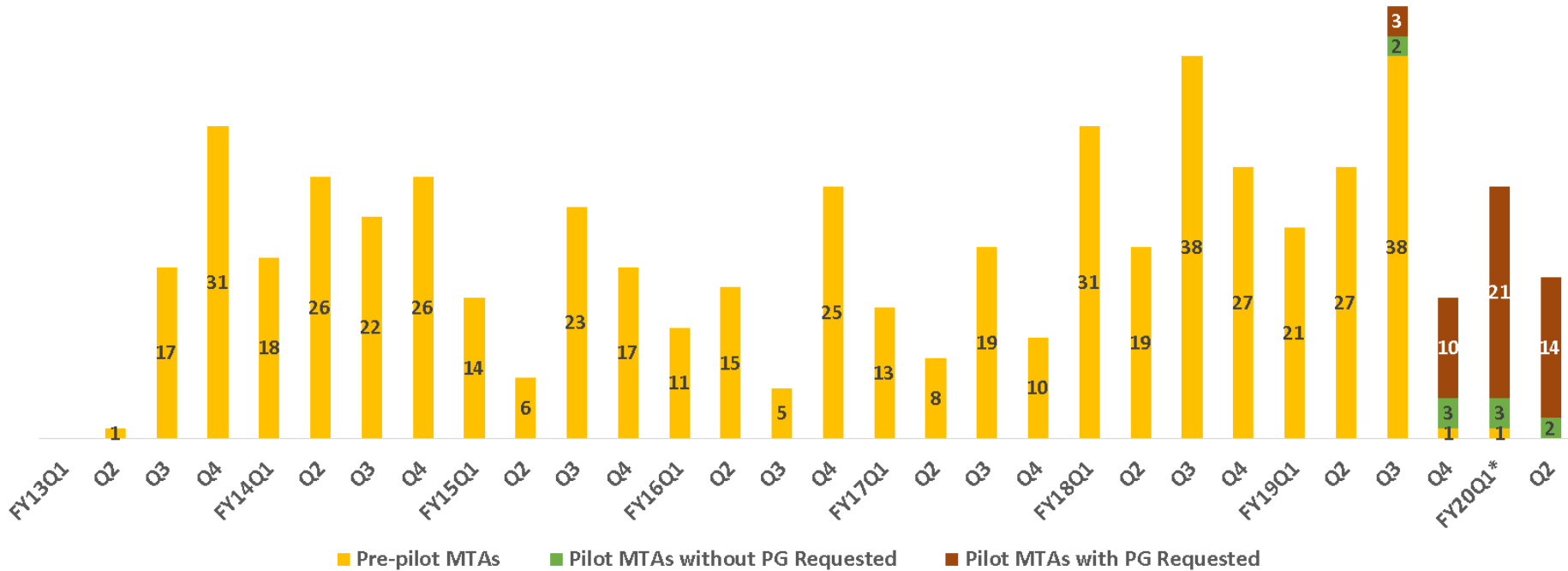
# Graph V: MTAs filed by fiscal year (FY13 to FY20: Oct. 1, 2012 to Mar. 31, 2020)



\* The one pre-pilot MTA filed in FY20 is a corrected MTA of an MTA originally filed in FY19. FY20 data is through March 31, 2020.

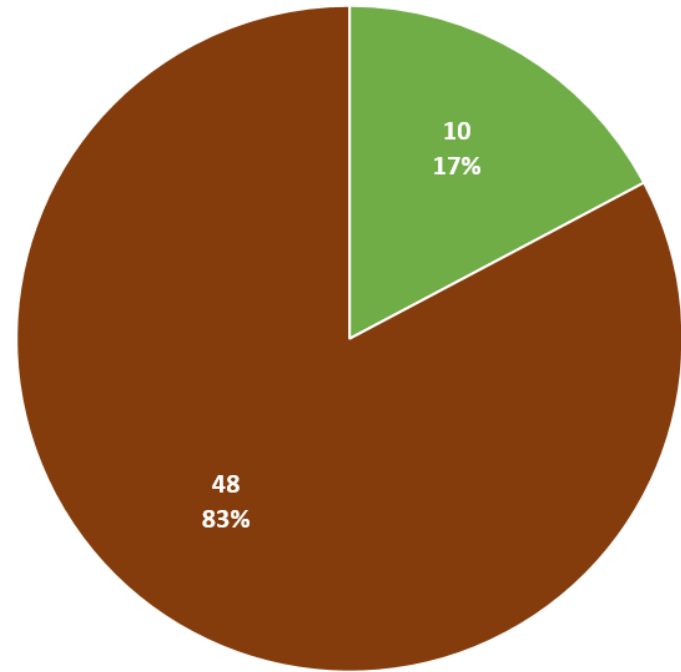


# Graph VI: MTAs filed by fiscal quarter (FY13 to FY20: Oct. 1, 2012 to Mar. 31, 2020)



\* The one pre-pilot MTA filed in FY20 Q1 is a corrected MTA of an MTA originally filed in FY19. FY20 data is through March 31, 2020.

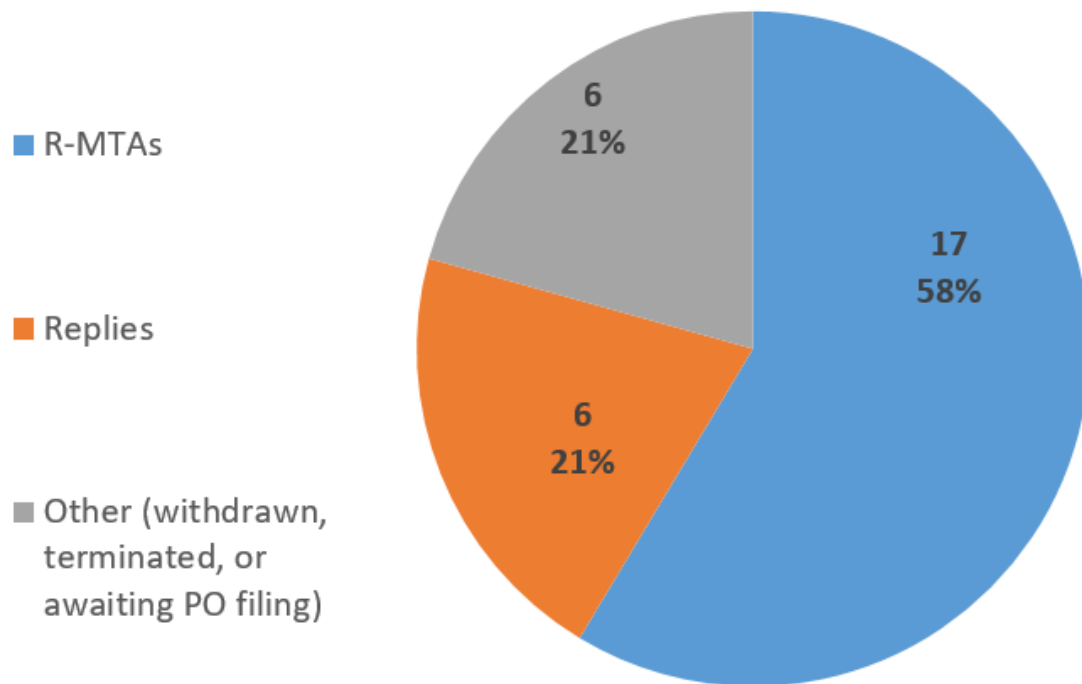
# Graph VII: MTAs filed under pilot program (Through Mar. 31, 2020)



■ MTAs without PG Request   ■ MTAs with PG Request



## Graph VIII: Patent owner filings after preliminary guidance (Through Mar. 31, 2020)



# Trial statistics by patent and by claims

[Originally Presented at a Boardside Chat in June 2020]

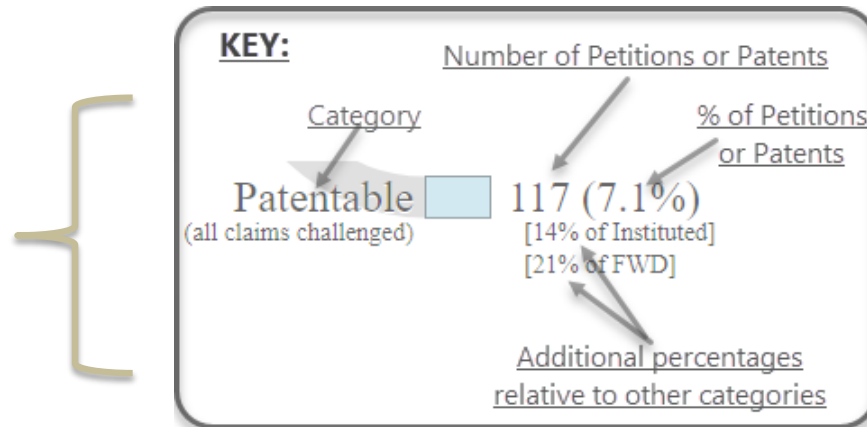
## **Appendix B**

# **AIA trial statistics for FY19**

# Contents

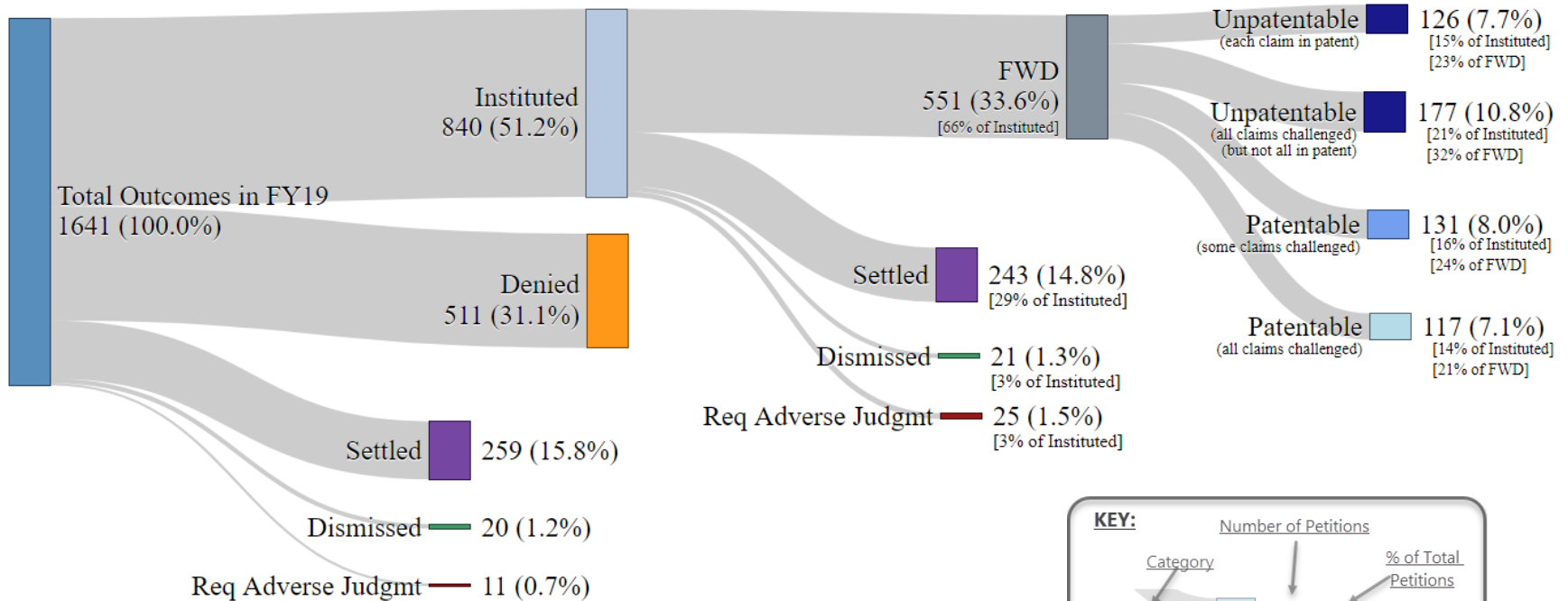
1. Statistics describing AIA proceedings
2. Description of the data set and methodology

How to read the Sankey diagrams

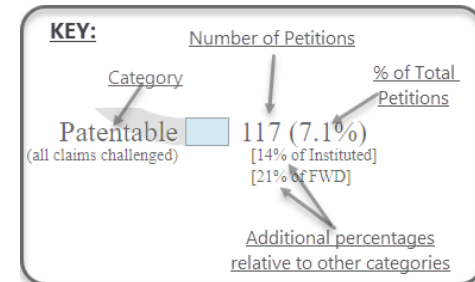


Some percentages in this presentation may not add up to 100% due to rounding.

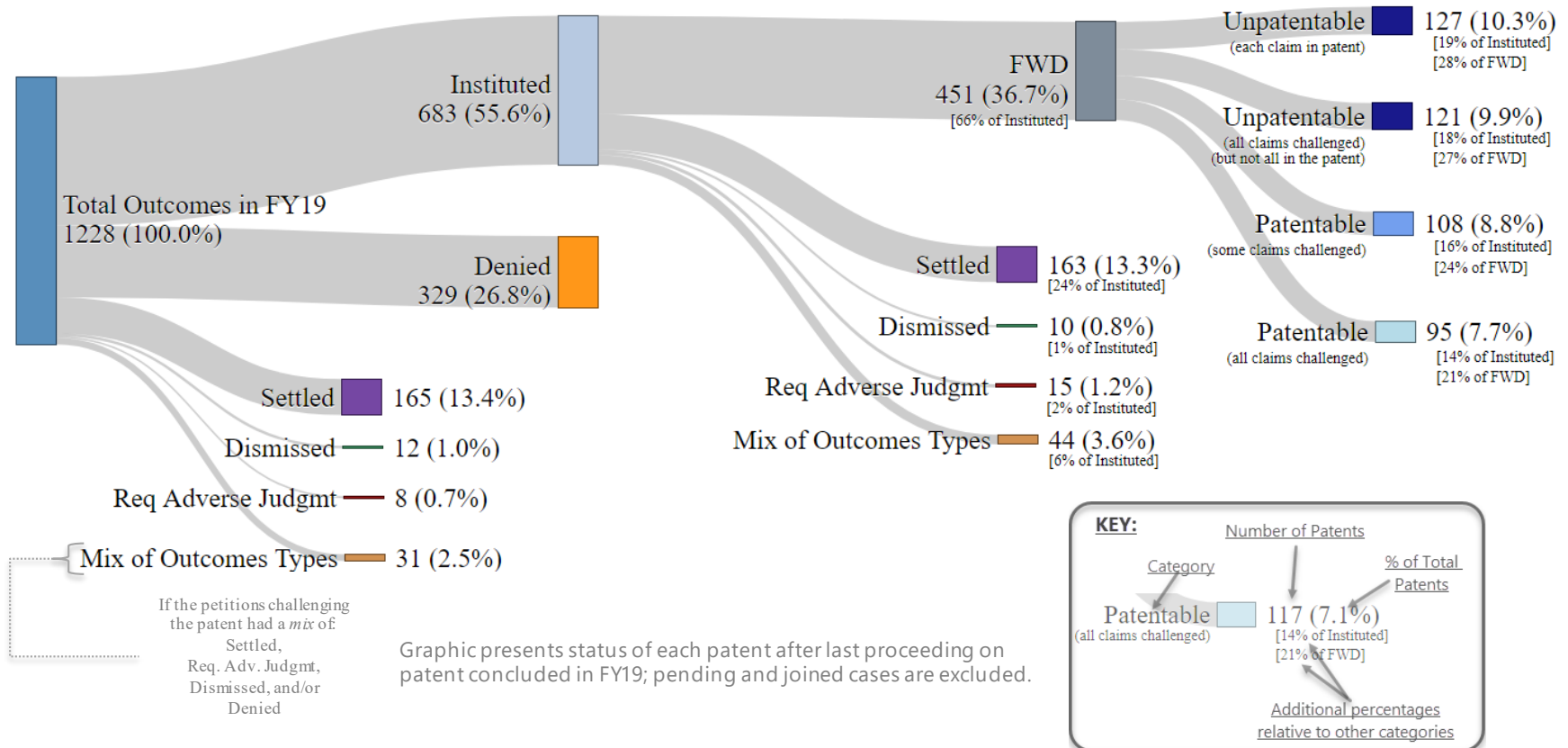
# Outcomes in FY19, by petition



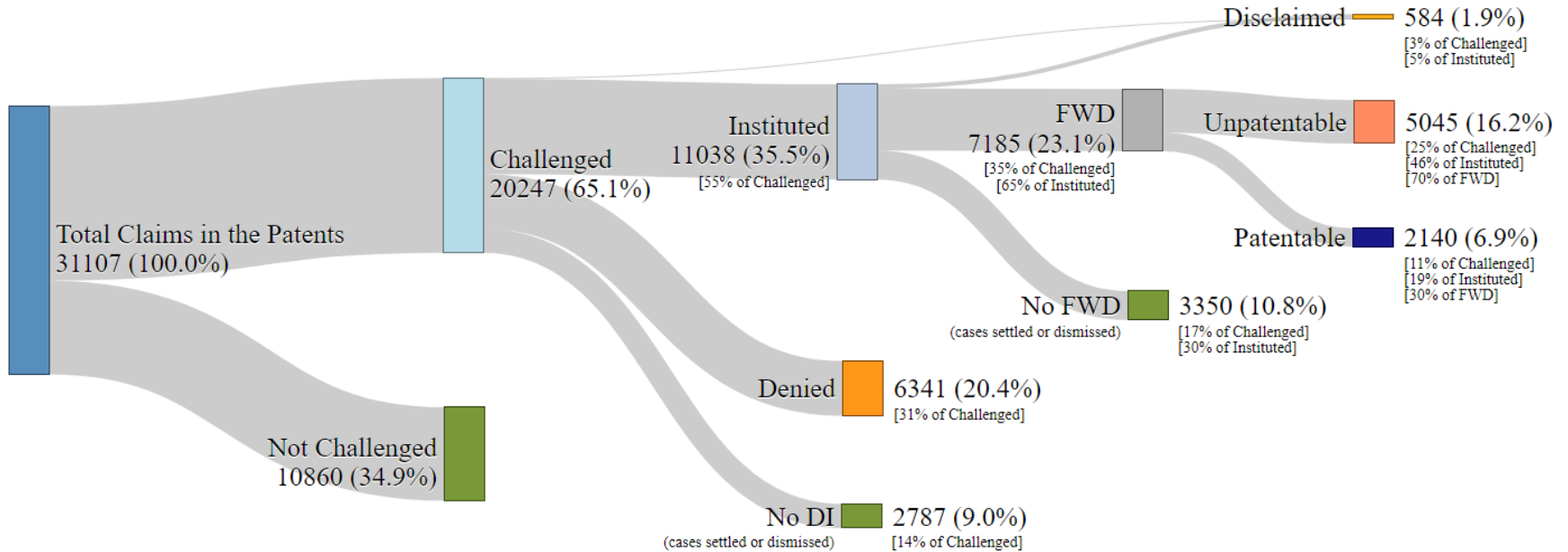
Graphic presents status of each proceeding concluding in FY19; pending and joined cases are excluded.



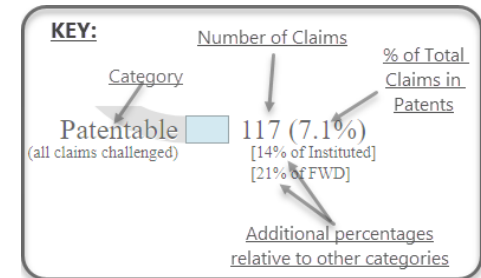
# Outcomes in FY19, by patent



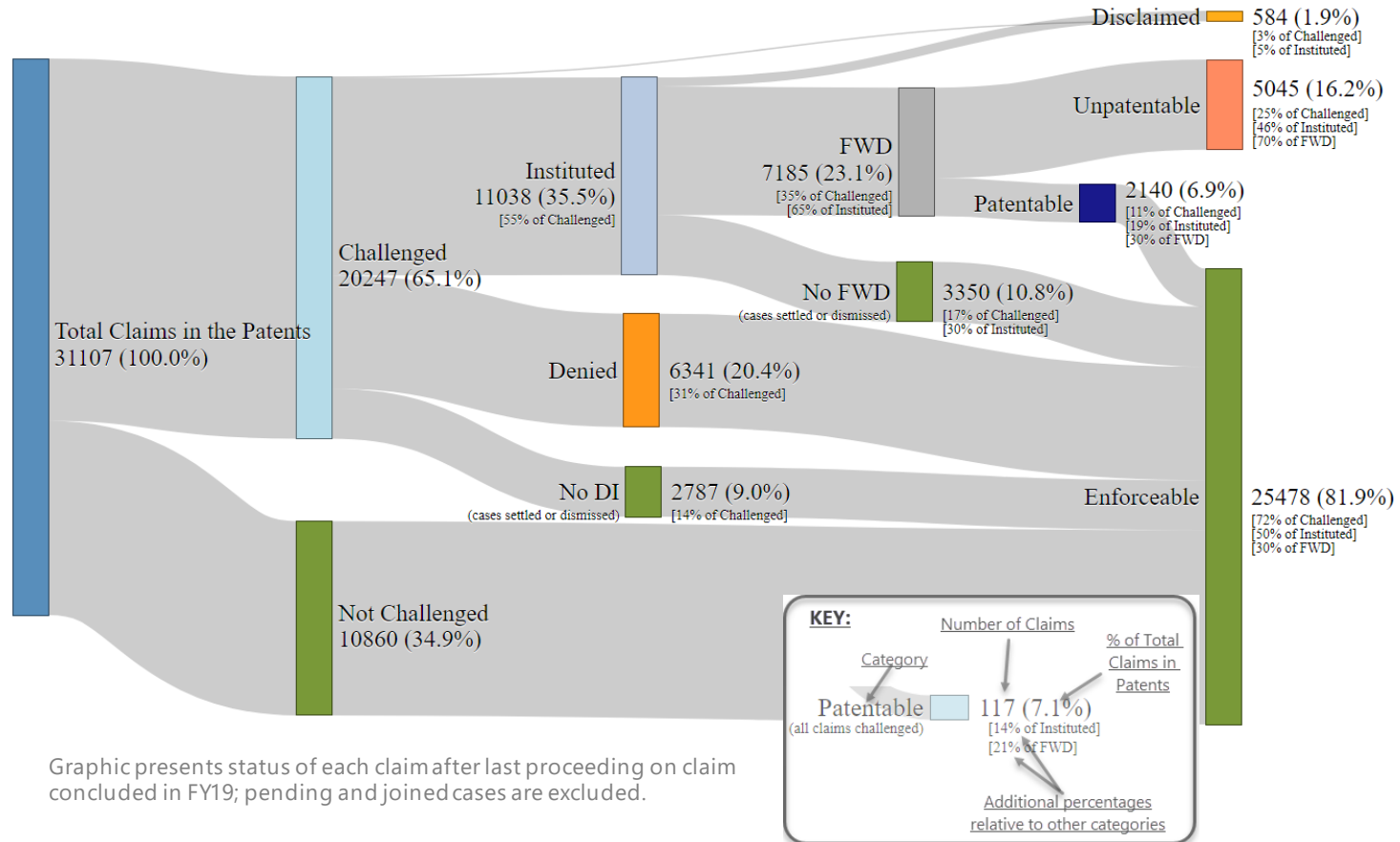
# Outcomes in FY19, by claim



Graphic presents status of each claim after last proceeding on claim concluded in FY19; pending and joined cases are excluded.



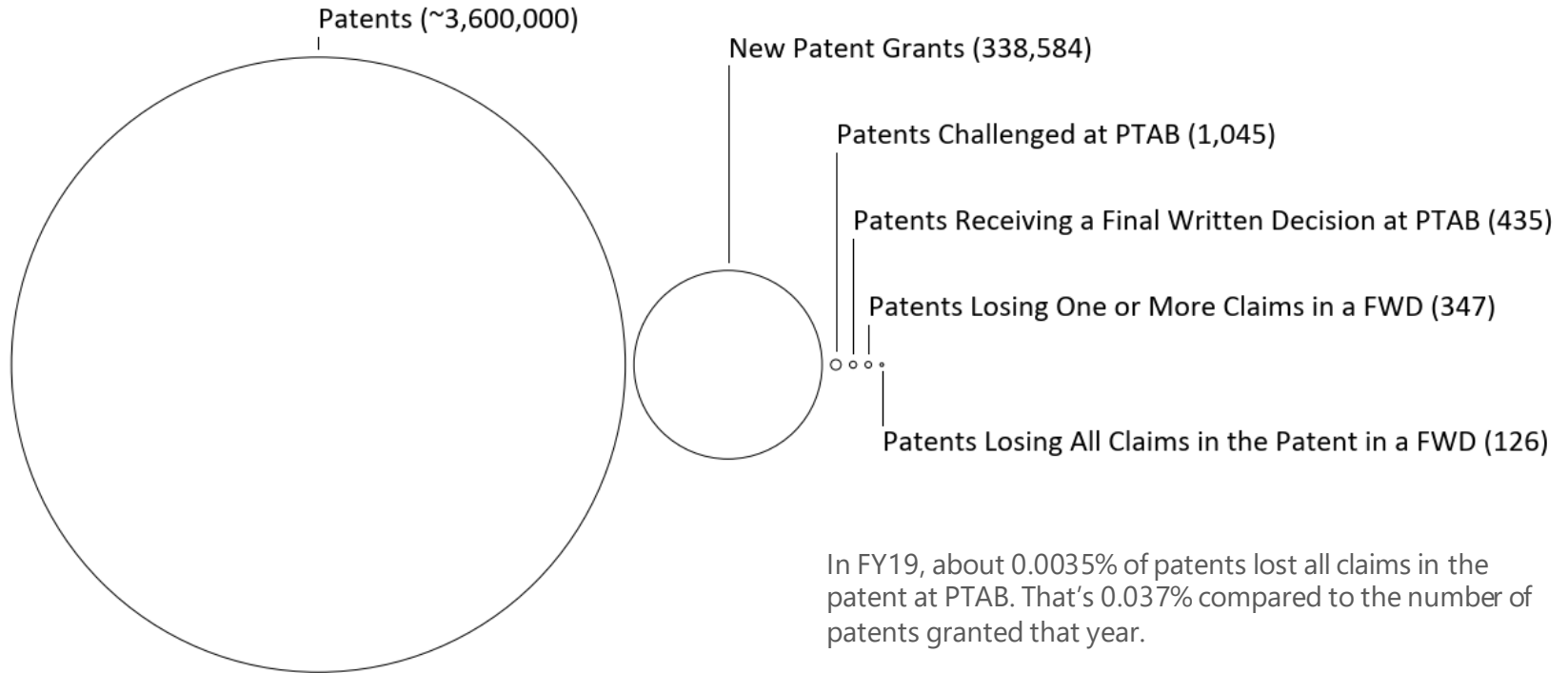
# Outcomes in FY19, by claim



Graphic presents status of each claim after last proceeding on claim concluded in FY19; pending and joined cases are excluded.



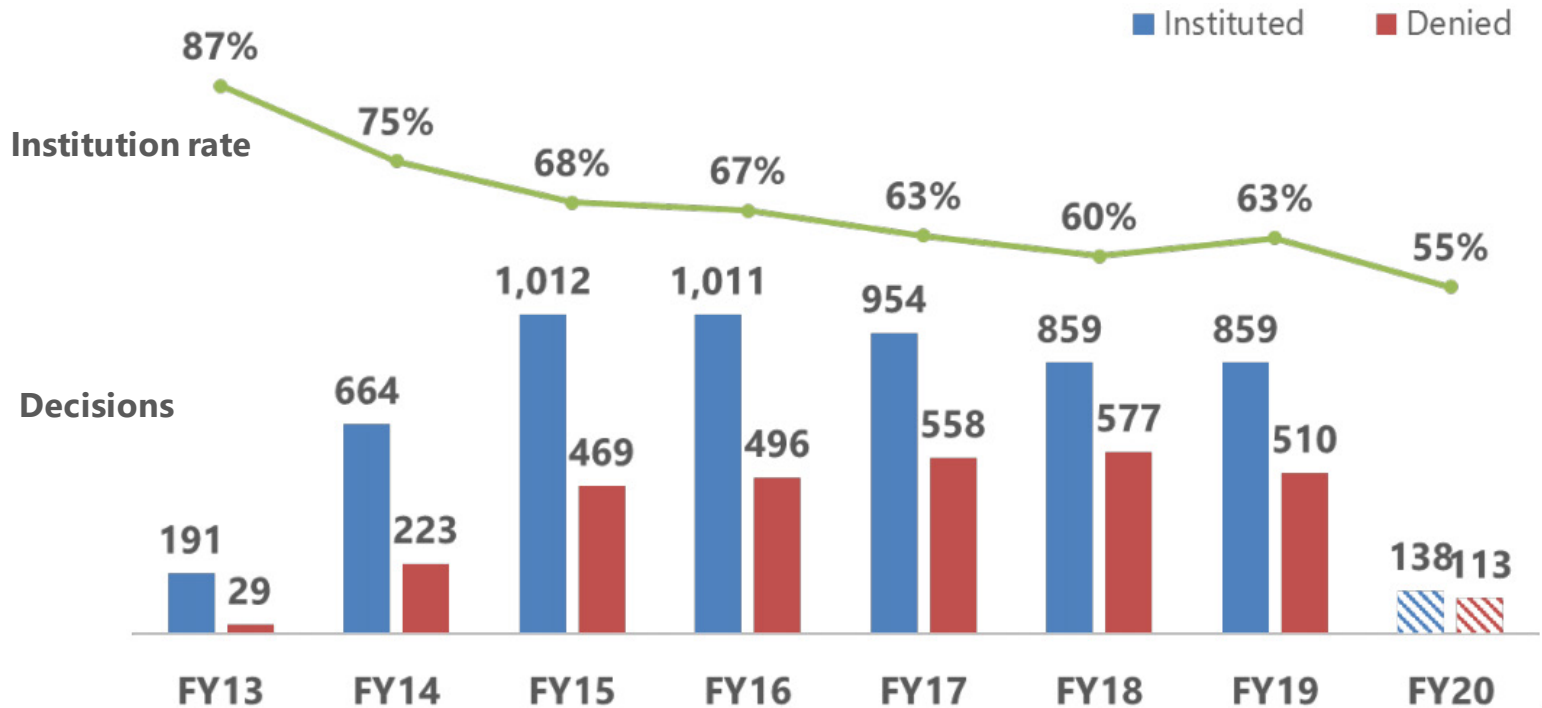
# In fiscal year 2019:



The area of each circle is scaled to the number of patents in the category.

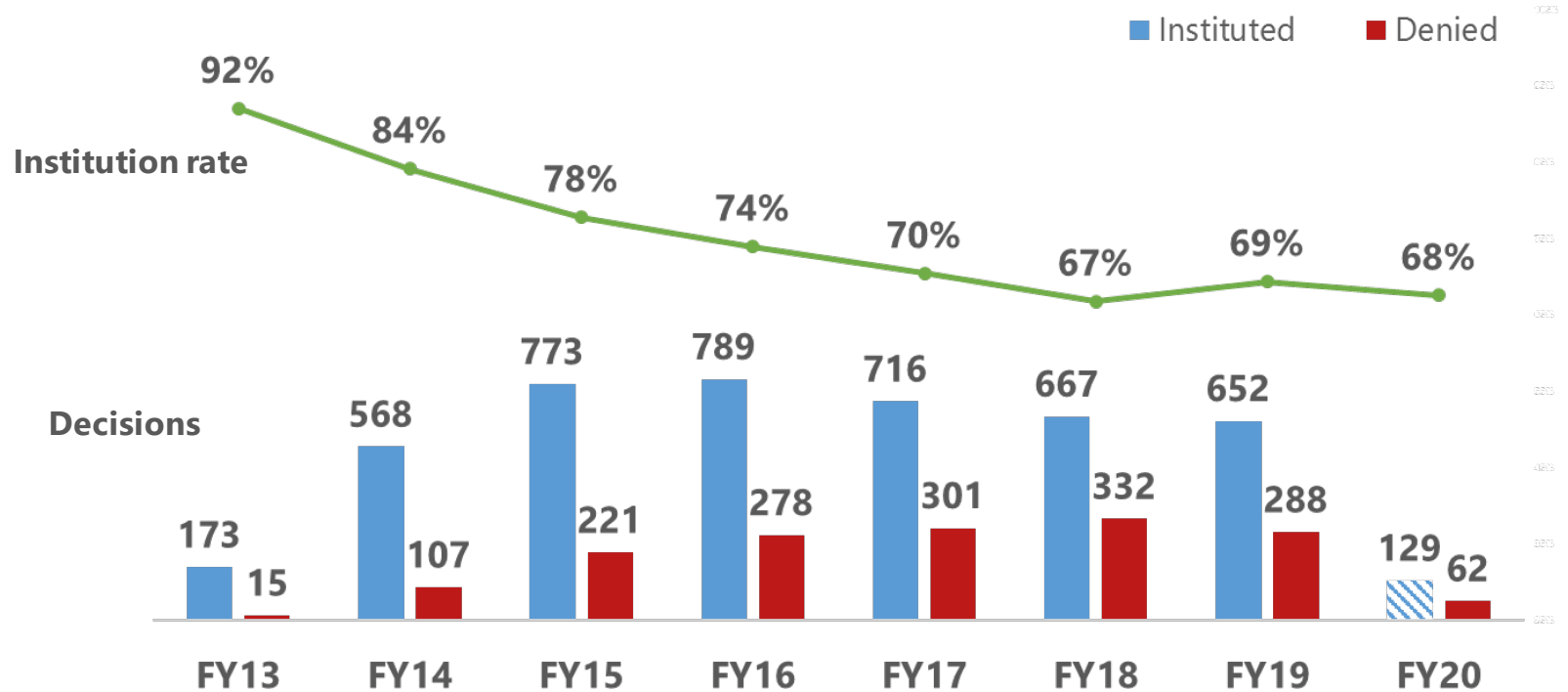
# Institution rates by petition

## (FY13 to FY20: Oct. 1, 2012 to Dec. 31, 2019)



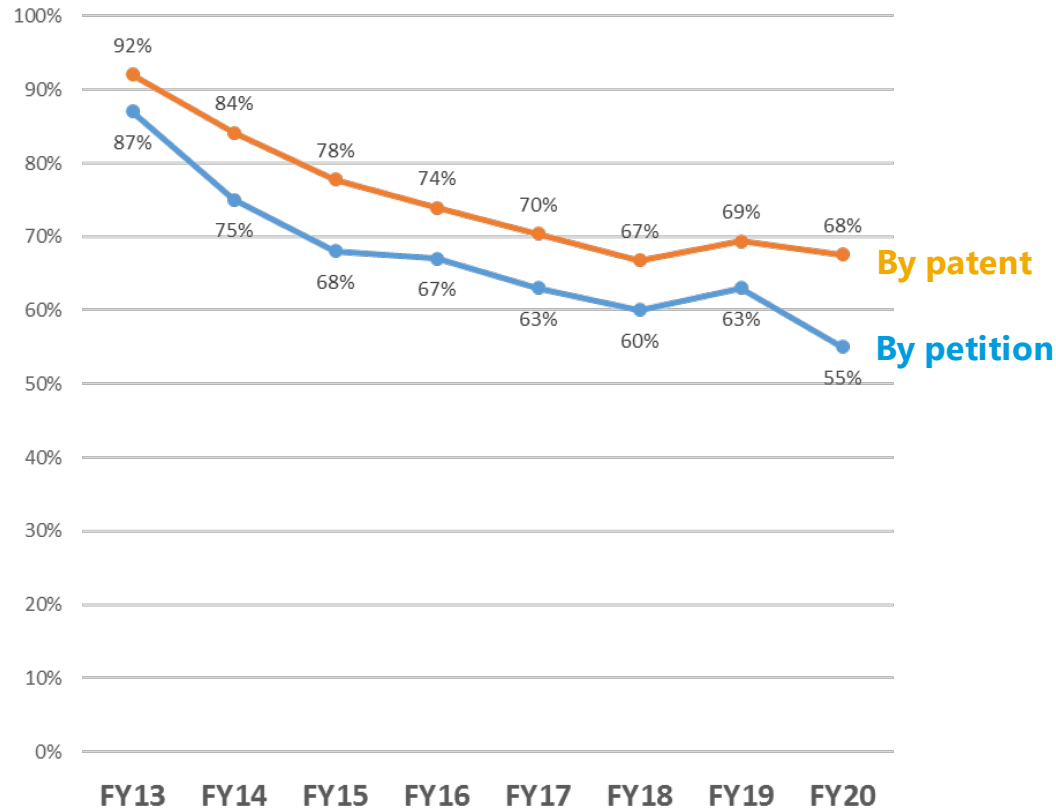
Institution rate for each fiscal year is calculated by dividing petitions instituted by decisions on institution (i.e., petitions instituted plus petitions denied). The outcomes of decisions on institution responsive to requests for rehearing are excluded.

# Institution rates by patent (FY13 to FY20: Oct. 1, 2012 to Dec. 31, 2019)

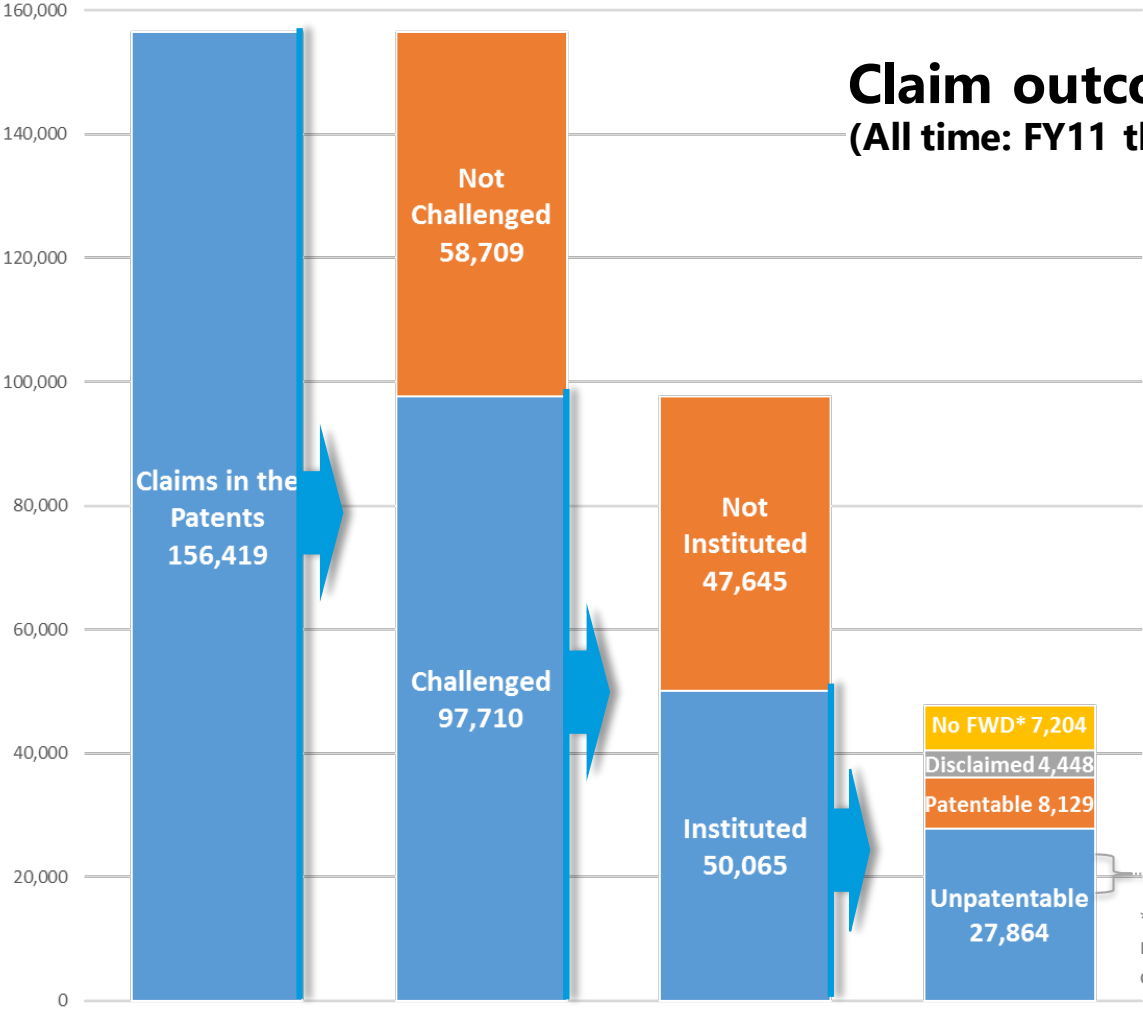


A patent is "instituted" if any petition challenging that patent is instituted. A patent is "denied" if no petitions challenging that patent are instituted. Patents that have not received a Decision on Institution are not included in this data set.

# Institution rates by petition vs by patent



# Claim outcomes of patents (All time: FY11 through FY19)

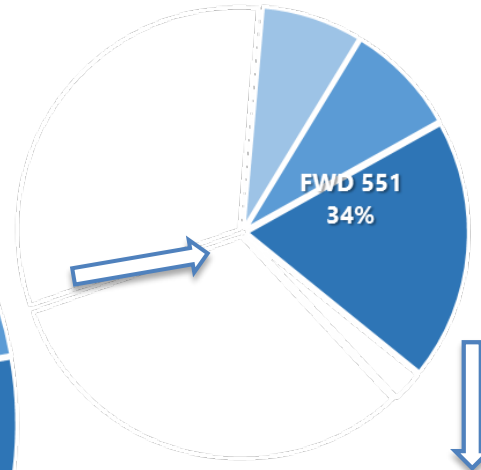
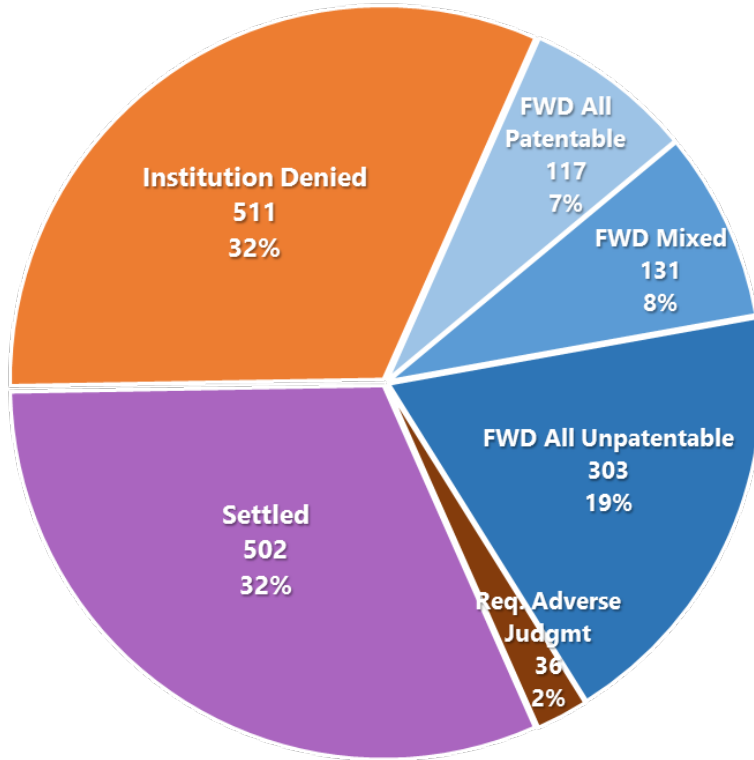


Pending cases are excluded.

Claims Found Unpatentable in Final Written Decisions =  
 18% of Claims in Challenged Patents  
 29% of Claims Challenged  
 56% of Claims Instituted

\*No FWD means the claim was instituted but never received a FWD (e.g., the underlying cases were settled or dismissed).

# Outcomes in FY19, by petition

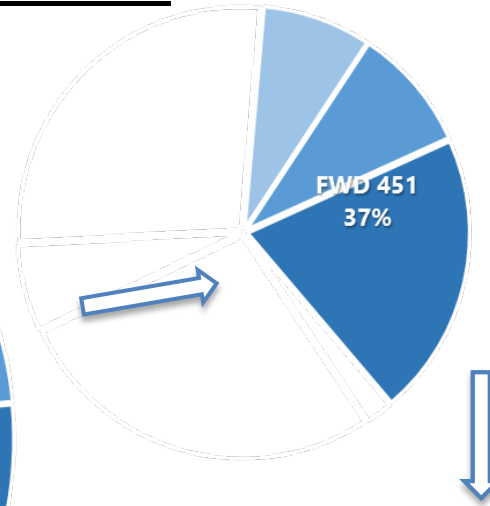
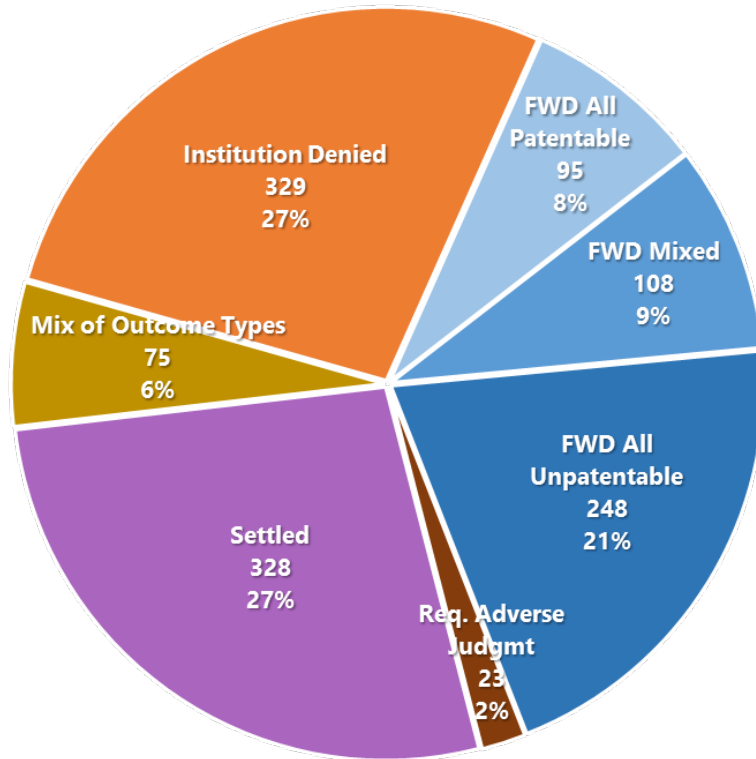


Percentage of the final written decisions

117 (21%)	FWD All Patentable
131 (24%)	FWD Mixed
303 (55%)	FWD All Unpatentable

Joined and dismissed cases excluded.

# Outcomes in FY19, by patent

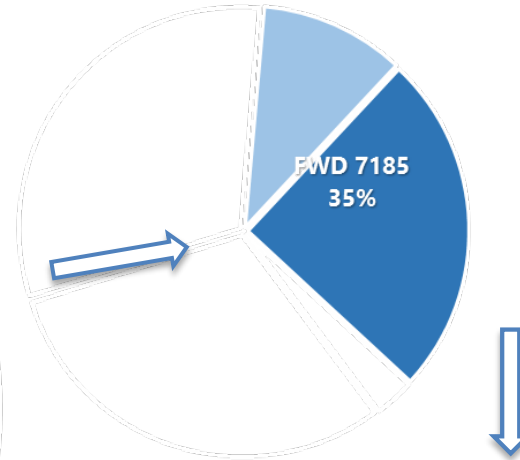
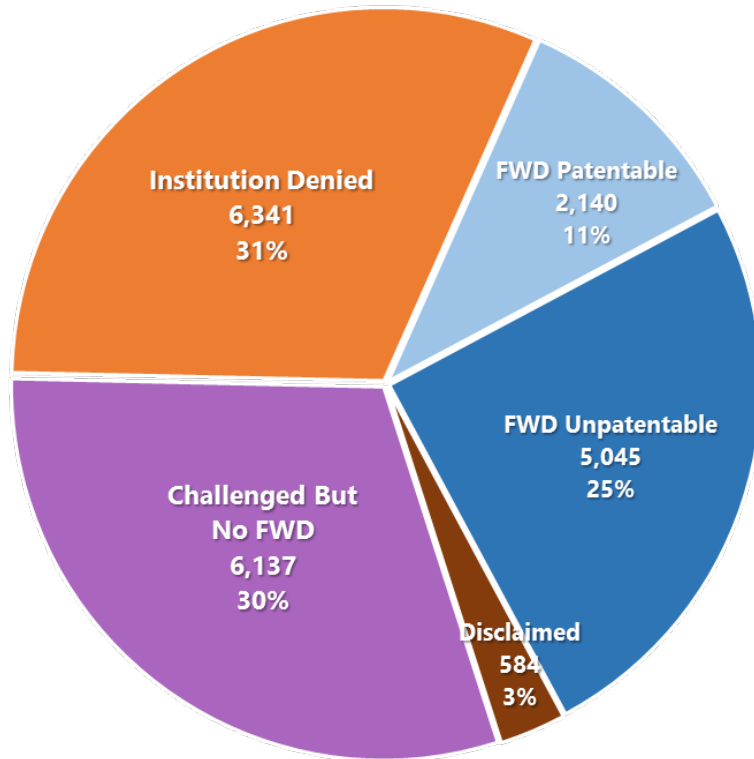


**Percentage of the final written decisions**

95 (21%)	FWD All Patentable
108 (24%)	FWD Mixed
248 (55%)	FWD All Unpatentable

Joined and dismissed cases excluded. FWD patentability or unpatentability reported with respect to the claims challenged. "Mix of Outcome Types" means patent saw a mix of denied, settled, and req. adverse judgment.

# Outcomes in FY19, by claim challenged



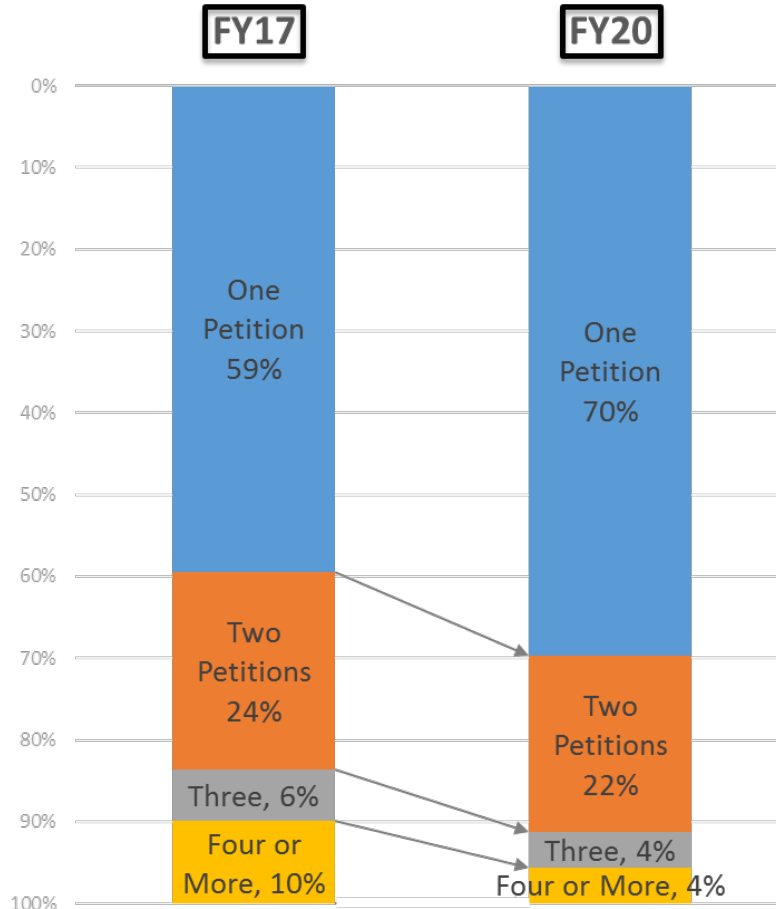
Percentage of the final written decisions

2140 (30%)	FWD Patentable
5045 (70%)	FWD Unpatentable

FWD patentability or unpatentability reported with respect to the claims challenged.



# Multiple petitions: *pre-General Plastic vs. today*



Patent Challenged by:	FY17 (%)	FY20 (%)	% Change
One Petition	59	70	19%
Two Petitions	24	22	-8%
Three	6	4	-33%
Four or More	10	4	-60%

Each bar accounts for all patents challenged during the indicated FY timeframe, and counts the total number of petitions ever filed with respect to those patents from September 16, 2012, up to the end of that FY timeframe. The timeframe for FY17 is the entire year, and the timeframe for FY20 is through the end of Q1.

The following pages provide an in-depth explanation of the methodology and data used to create the AIA trial statistics in this deck.

## **Appendix C**

# General notes & methodology

- Common acronyms: Decision on Institution (DI); Final Written Decision (FWD); Request for Adverse Judgment (RAJ); Fiscal Year (FY).
- Inter partes reviews (IPR), covered business method reviews (CBM), and post grant reviews (PGR) were considered. Derivations were not considered.
- The dataset includes the status of all petitions, patents, and claims as of the last date reported on the slide. For example, FY20 datasets display the outcome of the petition, patent, or claim as of close of business on 9/30/2020.
- Percentages are rounded to improve readability. Rounding is made according to traditional convention, where the digit to be rounded off is inspected and if between 0 and 4, round down, and if between 5 and 9, round up.
- Because of rounding, percentages may not always add up exactly to 100%. If a numbers are rounded to add up to 100%, the convention is followed where the number closest to being rounded is rounded.

# Methodology – Institution Rates

## Institution rates by petition, institution rates by patent

- Methodology information is provided on the corresponding slides.
- Institution rates by patent for a given year are the institution rates for those patents as of the end of the reported fiscal year.
  - Example 1: if a patent is challenged in FY17 and its petition is denied, that patent is counted as a denial in FY17.
  - Example 2: if the patent in example 1 is challenged again in FY19 and its petition is instituted, that patent is counted as an institution in FY19, but still counts as a denial in FY17.
  - Example 3: if a patent is challenged in FY17 and its petition is instituted, that patent is counted as an institution in FY17. If that same patent is challenged again in FY19 and its petition is denied, that patent is counted as an institution in FY19 because it has already had an institution in the past. It also still counts as an institution in FY17.
- Due to this methodology, reported institutions by patent are slightly higher than the actual number of institutions in a given year.
- Mathematically, the institution rate by patent must always be higher than by petition. The rates are not equal because different petitioners may file a petition against a patent, or a single petitioner may file more than one petition to use different art or to address large claim sets, for example. The more often a second or third, etc. petition is not instituted, the more divergent the by-petition rate becomes.
- Institution rates by petition consider joinders but do not consider rehearing outcomes. PTAB has not been considering rehearing outcomes when reporting institution rates in order to prevent historically provided numbers from fluctuating and to obviate the need to update historical slide decks (notwithstanding, there are very few granted rehearings, so the numbers would only change by a few, if any, in a year).
- Institution rates by patent consider joinders and rehearing outcomes. Rehearing outcomes are considered in the year they occur, and the institution rate calculation uses the year of the rehearing outcome. Thus, a patent may be denied in FY19 and instituted in FY20 if a rehearing request decided in FY20 flips the outcome of the petition (or vice versa), which would shift it from being considered in the calculation from FY19 to FY20. Motions for joinder are granted to join a case to an already instituted case, thus joinders do not affect a patent's institution status, only which year(s) a patent is listed as having an institution. For example, a petition grant in FY19 and then a joinder grant to the earlier petition in FY20 would result in the patent being listed as an institution in both FYs.



# Methodology – Petition Outcomes

## Outcomes in FY20, by Petition

- This pie chart graphic displays the results for each petition that reached an outcome in this FY.
- “Outcomes” are defined as the names of events that end an AIA proceeding. The outcomes consist of: FWD, Settled, Dismissed, RAJ, and Denied. These outcomes may also be referred to as “terminations” or “dispositions.” Note that an RAJ may be requested by either the petitioner or the patent owner.
- Pending cases have not reached an outcome and are by definition excluded. Joined cases mirror the outcome of the case to which they are joined and are excluded to avoid double counting.
- The graphic (as well as those similar graphics that follow) breaks out FWDs into three categories.
  - “FWD All Patentable” means that all of the claims addressed by PTAB in the FWD were found patentable, and none of the claims addressed by PTAB were found unpatentable.
  - “FWD Mixed” means that PTAB found at least one claim patentable as well as at least one claim unpatentable in the FWD.
  - “FWD All Unpatentable” means that all of the claims addressed by PTAB in the FWD were found unpatentable, and none of the claims addressed by PTAB was found patentable.
  - Claims that were originally challenged but not before PTAB in the FWD do not factor into the categorization (e.g., claims disclaimed, canceled, or otherwise withdrawn from the proceeding).
  - In this way, the FWD categorization represents PTAB’s ruling on the claim based on the evidence presented to it and evaluated in the FWD.
- Results of rehearings within the FY are considered. For example, if a case is initially denied in FY19, but then instituted on rehearing in FY20, then the case is counted as denied in FY19. If that case were denied on rehearing in FY20, it would still be counted as denied only in FY19. If a case was instituted in FY19, but denied on rehearing in FY20, it would count as a denial in FY20. In this way, the institution counts in this graphic may differ slightly than those in the Institution Rates chart, because that chart does not consider outcomes on rehearing, for the reasons explained in the notes for that chart (e.g., to prevent prior rates from fluctuating). Here, decisions on rehearing that occur in the subject FY are considered because it is an outcome that happened in the FY.

# Methodology – Patent Outcomes

## Outcomes in FY20, by Patent

- This pie chart graphic displays the overall results for each patent that saw an outcome (defined above) in one of its petitions in this FY.
- First, each patent that had a petition reach an outcome in the FY was identified (i.e., the petition outcomes shown in the “by petition” pie chart).
- Then, the outcomes of all of the petitions ever challenging that patent as of the end of the FY were considered in order to determine a net outcome for that patent as of the end of the FY. Outcomes occurring after the end of the FY were not considered.
- Outcome categories by patent mirror the outcome categories by petition. However, because it is possible that there may be more than one petition challenging a patent, potentially in different FYs, and not all of the petitions challenging a patent may have the same outcome, outcomes by patent are an aggregate or net outcome.
- If there is one petition or each petition challenging a patent had the same outcome, then that is the outcome for the patent.
- If there is more than one petition, and any petition had a FWD outcome, then the patent outcome is FWD, even if the FWD happened in an earlier FY.
- If there is more than one petition, and there are a mixture of different outcome types, then the outcome is “mixed outcomes.” Note that the mix of outcome category does not include FWDs, per the prior rule.
- To further breakout the FWD category, the net claim outcome of all claims challenged in all of the FWDs addressing that patent were considered. FWD categorization methodology was described above in the “by petition” slide discussion. To determine the net outcome of a claim by patent, please refer to the methodology for the “by claim” slide discussion, to follow. In a nutshell, if a claim is ever found unpatentable, the claim is listed as unpatentable, and if a claim is found patentable and never found unpatentable, the claim is counted as patentable. Thus, if a claim was both found patentable and unpatentable, it will be counted as unpatentable.
- Pending cases are excluded because pending cases have no outcome.
- Joined cases do not have an affect as their outcome mirrors that of the case to which they are joined.
- Results on rehearing requests of decisions on institution are considered, as was explained in the “by petition” slide discussion above.
- Note that, by following the above rules for patent outcome categorization, the outcome listed in the pie chart for this FY for a given patent may not be an outcome the patent saw in this FY. For example, if a patent saw an FWD in FY18 and a denial of institution in FY19, it would be represented as an FWD outcome in FY19, even though the FWD event occurred in FY18, because the chart shows the *net outcome*, as defined above, of the patent as of the end of the FY. Thus, the number of patents seeing an FWD in this FY is not necessarily the same as the number shown in the pie chart (please refer to the circles chart to see # of patents seeing a FWD in this FY).

# Methodology – Claim Challenged Outcomes

## Outcomes in FY20, by Claim

- This pie chart graphic displays the by-claim results for each patent that reached an outcome in the FY. Thus, the results shown are for the claims of the patents from the “by patent” slide, i.e., all claims of all patents having a proceeding reach an outcome in the FY.
- For each of those patents, the underlying proceedings were analyzed to capture claim-by-claim outcome information. Each claim in the patent was noted and then considered individually for whether the claim ultimately was: denied, dismissed, found unpatentable, found patentable, disclaimed, or otherwise challenged but without reaching an FWD.
  - “Unpatentable” and “patentable” mean *PTAB found* the claim unpatentable or patentable *in a FWD* on the merits of petitioner’s ground, i.e., under 35 U.S.C. 318(a).
  - “Disclaimed” means the *patent owner* requested adverse judgment on, disclaimed, or otherwise canceled the claim. Often called “RAJ” for brevity.
  - A claim was “denied” if it was denied in every ground of every petition challenging the claim.
  - A claim was “dismissed” if it was dismissed in every petition challenging the claim.
  - A claim was “Challenged But No FWD” if it was challenged but did not fall into one of the above categories. For example, if it saw both a denial and a dismissal. Or, most commonly, the cases involving the claim settled.
- If a claim saw multiple outcomes, the following precedence was used: unpatentable > disclaimed > patentable.
- The outcome reported for a given claim of a given patent is assigned to one and only one of these categories.
  - Example 1: if a claim has been found unpatentable and patentable in two different proceedings, then the claim is listed as unpatentable.
  - Example 2: if a patent owner expressly cancels a claim in a motion to amend, that is categorized as a “disclaimer.” If a patent owner merely moves to amend a claim, that is not considered a cancellation/disclaimer.
  - Note 1: if a patent owner first expressly cancels a claim in a first proceeding, and in a parallel but later-addressed proceeding PTAB notes that the claim is unpatentable due to the cancellation, the claim is recorded as “disclaimed” because PTAB never found the claim unpatentable on the merits. Conversely, if a claim is found unpatentable, and in a later proceeding patent owner cancels the claim due to it previously being found unpatentable, the claim is considered unpatentable because patent owner is considered to have canceled the claim due to the previous finding of unpatentability.
  - Note 2: the claims proposed in motions to amend (MTA) are not considered because claims in MTAs are new claims. Thus, if MTA claim 31 is proposed to substitute for issued and challenged claim 1, only the results of claim 1 are reported, regardless of what happens to MTA claim 31. Please refer to one of PTAB’s MTA statistics presentations for more information about the outcomes of the proposed claims in a MTA.
- The results shown are the net claim results for the *patents* as of the end of the FY. The results listed consider the net outcome seen by *every* claim of these patents at PTAB up to the end of the FY, even if the outcomes happened in a prior FY.
  - Example: a patent has two claims. Claim 1 was challenged in two petitions, the first petition denied in FY18 and the second resulting in a FWD finding of patentable in FY19. Claim 2 was challenged in one petition denied in FY20. Because the patent had an outcome in FY20 (the denial of claim 2), all of the patent’s claims will be represented in the FY20 by-claim pie chart. Claim 1 will be in the “FWD Patentable” category because the patentable outcome takes precedence over a challenged but not instituted (here, denied) outcome. Claim 2 will be shown in the “Institution Denied” pie category.

# Methodology – Claim Bar Chart, Circles Chart

## Claim Outcomes Slide (bar chart)

- This graphic shows the outcome of all claims of all patents seeing an outcome at PTAB in the FY.
- The data has the same general categorization and methodology as the “by Claim Challenged” slide, but with more granularity. Please refer to that slide’s methodology discussion for more detail.
  - The Claim Outcomes Slide explicitly shows how many claims were disclaimed pre- or post-institution.
  - The “No DI” category shows claims that never were addressed in a DI (e.g., due to settlement, dismissal, or petitioner’s RAJ).
  - The “No FWD” category shows claims that were instituted but never were addressed in a FWD (e.g., due to settlement, dismissal, or petitioner’s RAJ).

## “All Patents, Fiscal Year 2020:” Slide (circles graphic)

- This graphic uses the size of circles to show the number of PTAB proceedings relative to the number of patents at large.
- The 3.8 million patent number is an estimate of the number of unexpired patents existing during FY20. The estimate was obtained by starting with a list of all patents issued and calculating the projected expiration date, then observing which patents would not have expired prior to the start of FY20. The projected expiration date was calculated by considering the grant date, continuity data, payment of maintenance fees, and any patent term adjustment given. Data on terminal disclaimers, findings of invalidity in district court, and findings of unpatentability at the USPTO were not available and/or not accounted for, but together would not be large enough to affect the three significant digits reported in the 3.8 million number.
- New Patent Grants includes all utility, design, reissue, and plant patents issued during FY20 by the USPTO.
- Note that the number of patents challenged in this FY will be different than the number of patents receiving an outcome in this FY, because of the time it takes from petition filing to outcome is often more than 1 year. Similarly, the number of patents receiving a FWD this year (shown here) will be different from the number of patents whose *net* outcome as of the end of the FY is FWD (shown in the pies), for the reasons explained in the by-patent methodology slide (e.g., the by-patent outcome considers all outcomes, even in prior FYs).



