

**UNITED STATES
PATENT AND TRADEMARK OFFICE**



[Originally presented at Boardside Chat on June 11, 2020]

Patent Trial and Appeal Board
Lead Judge William Saindon
June 11, 2020

UNITED STATES
PATENT AND TRADEMARK OFFICE

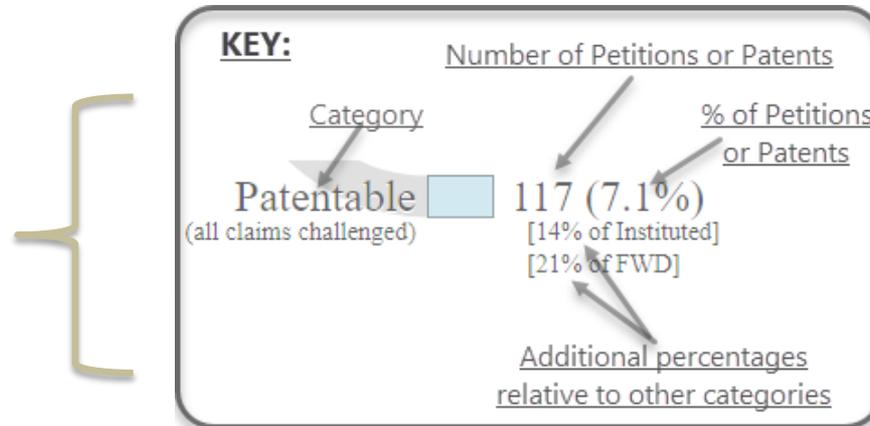


New AIA trial statistics

Contents

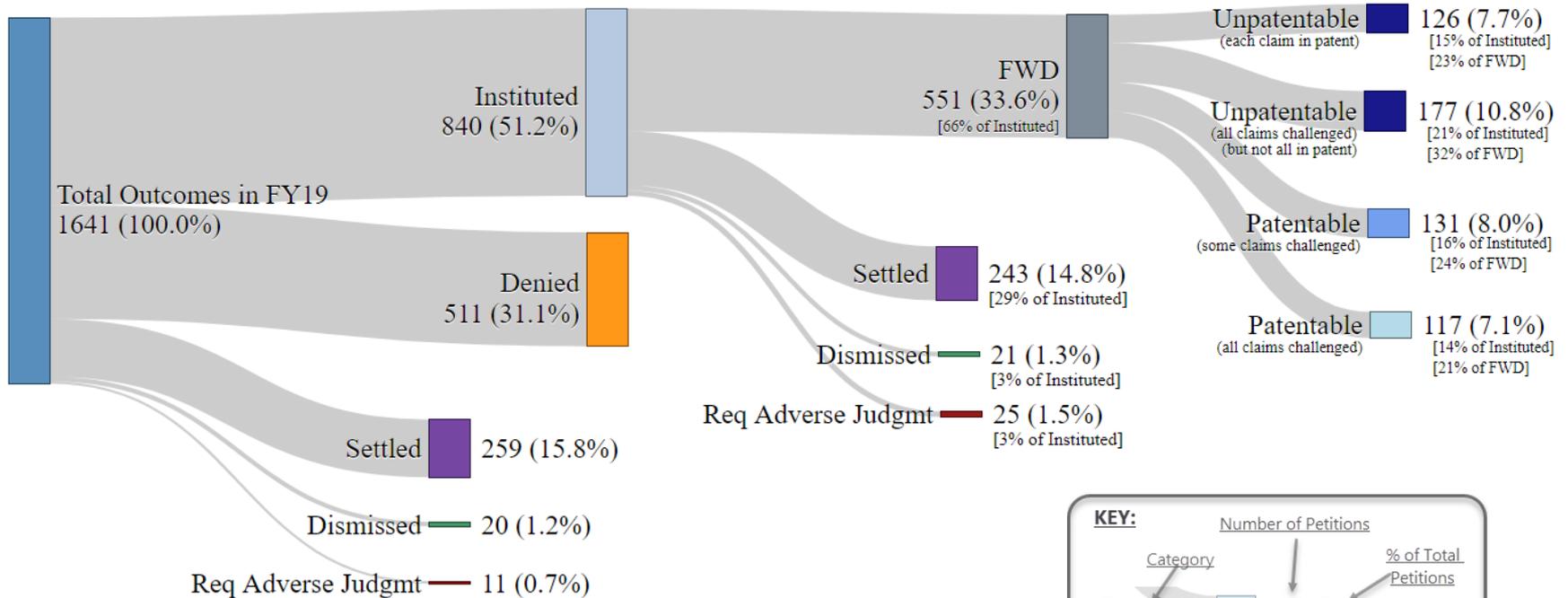
1. Statistics describing AIA proceedings
2. Description of the data set and methodology

How to read the Sankey diagrams

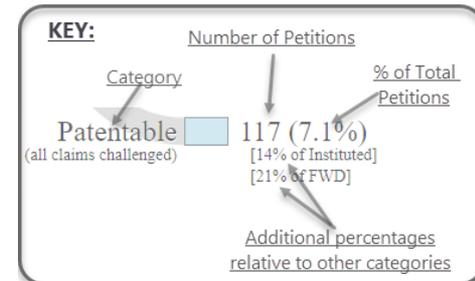


Some percentages in this presentation may not add up to 100% due to rounding.

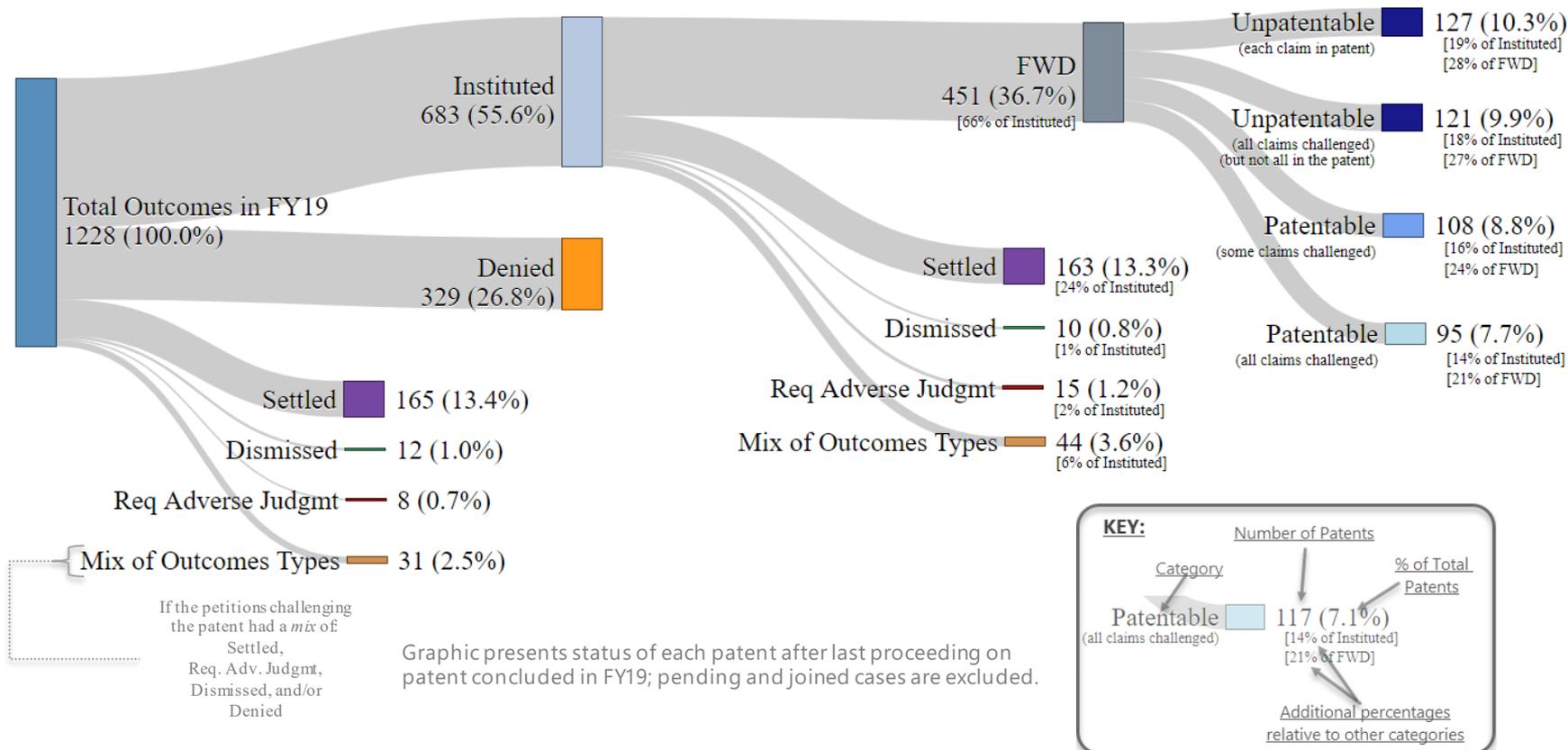
Outcomes in FY19, by petition



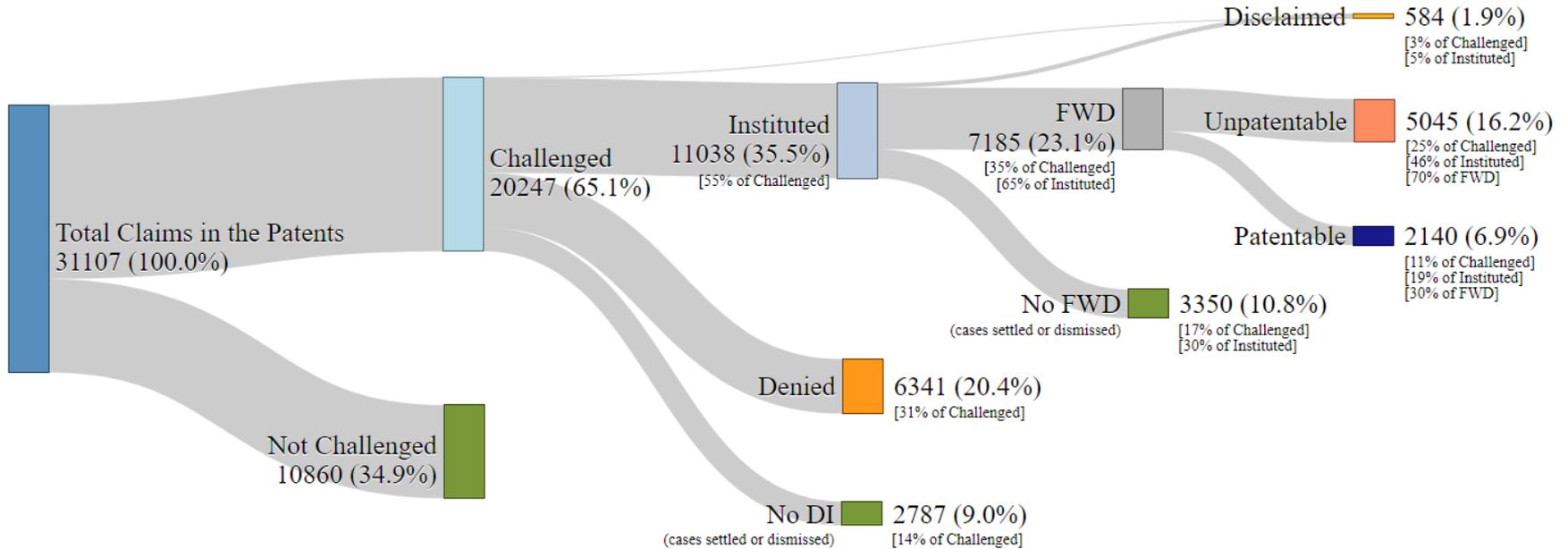
Graphic presents status of each proceeding concluding in FY19; pending and joined cases are excluded.



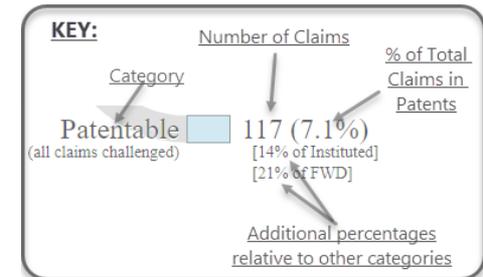
Outcomes in FY19, by patent



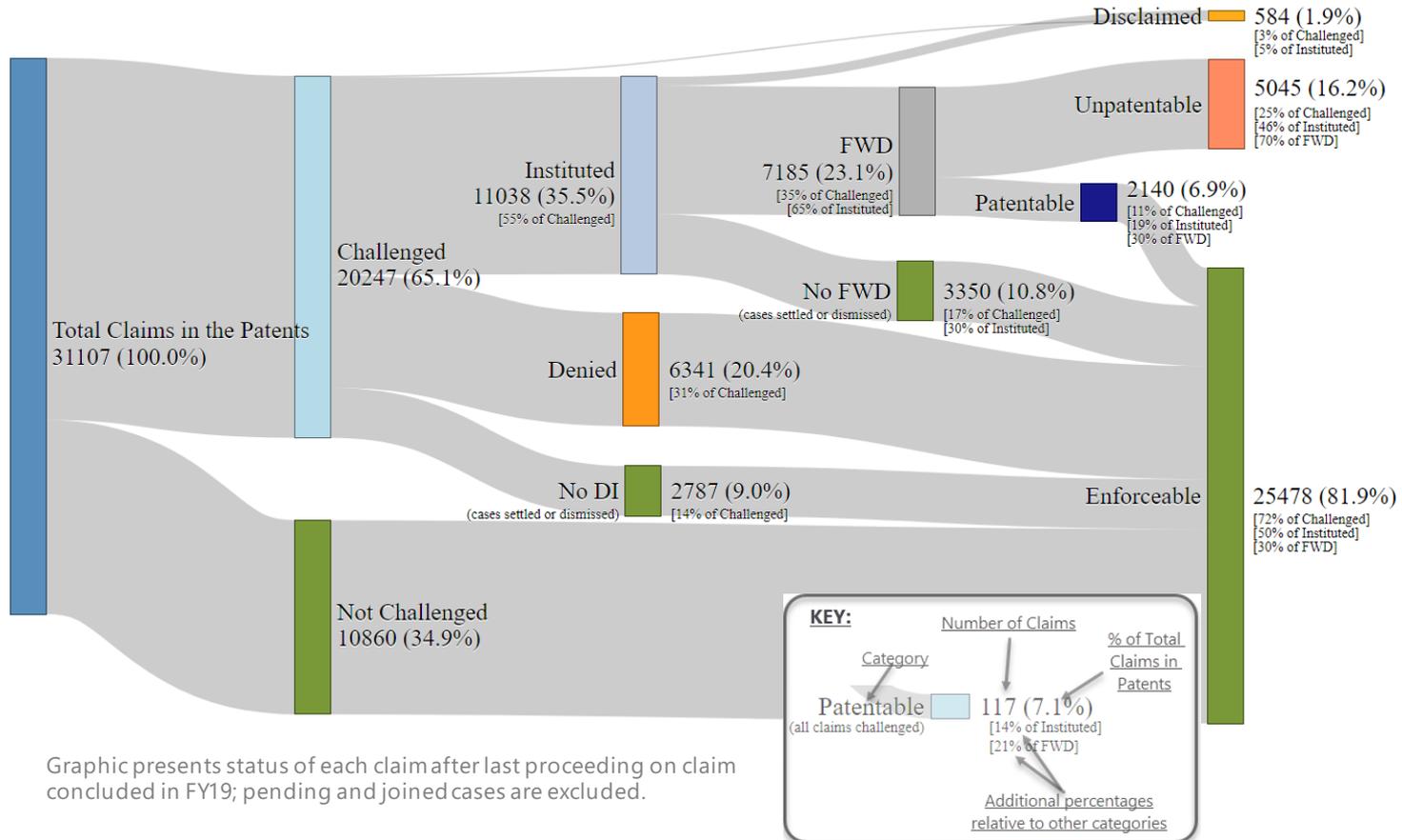
Outcomes in FY19, by claim



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

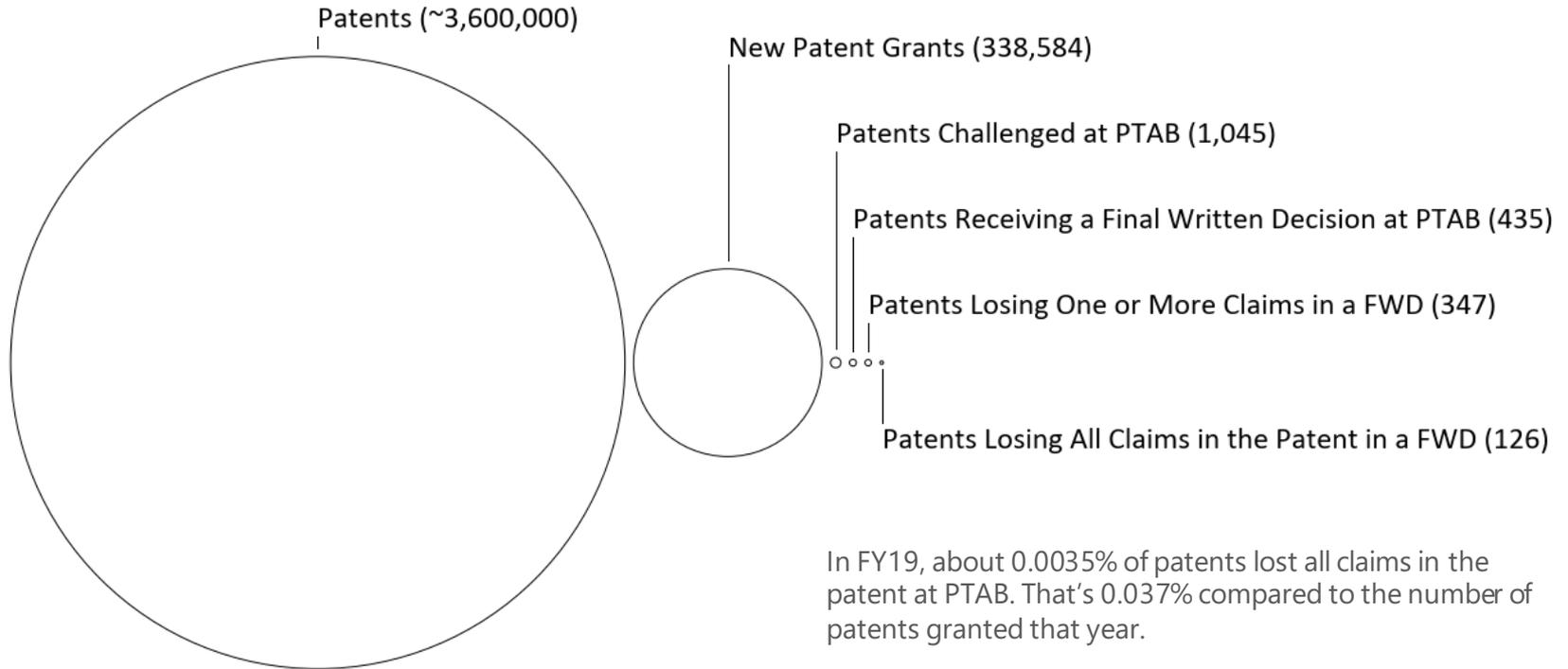


Outcomes in FY19, by claim



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

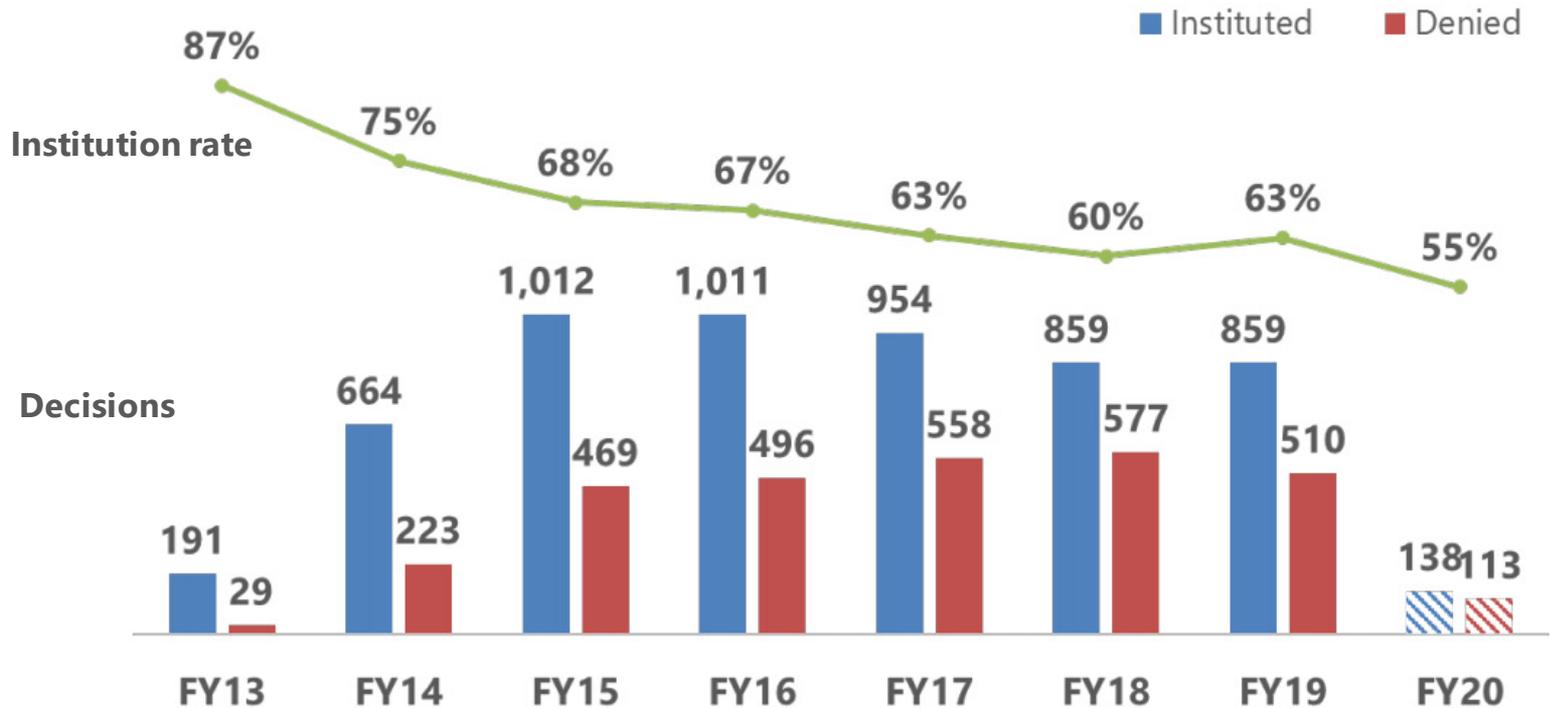
In fiscal year 2019:



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

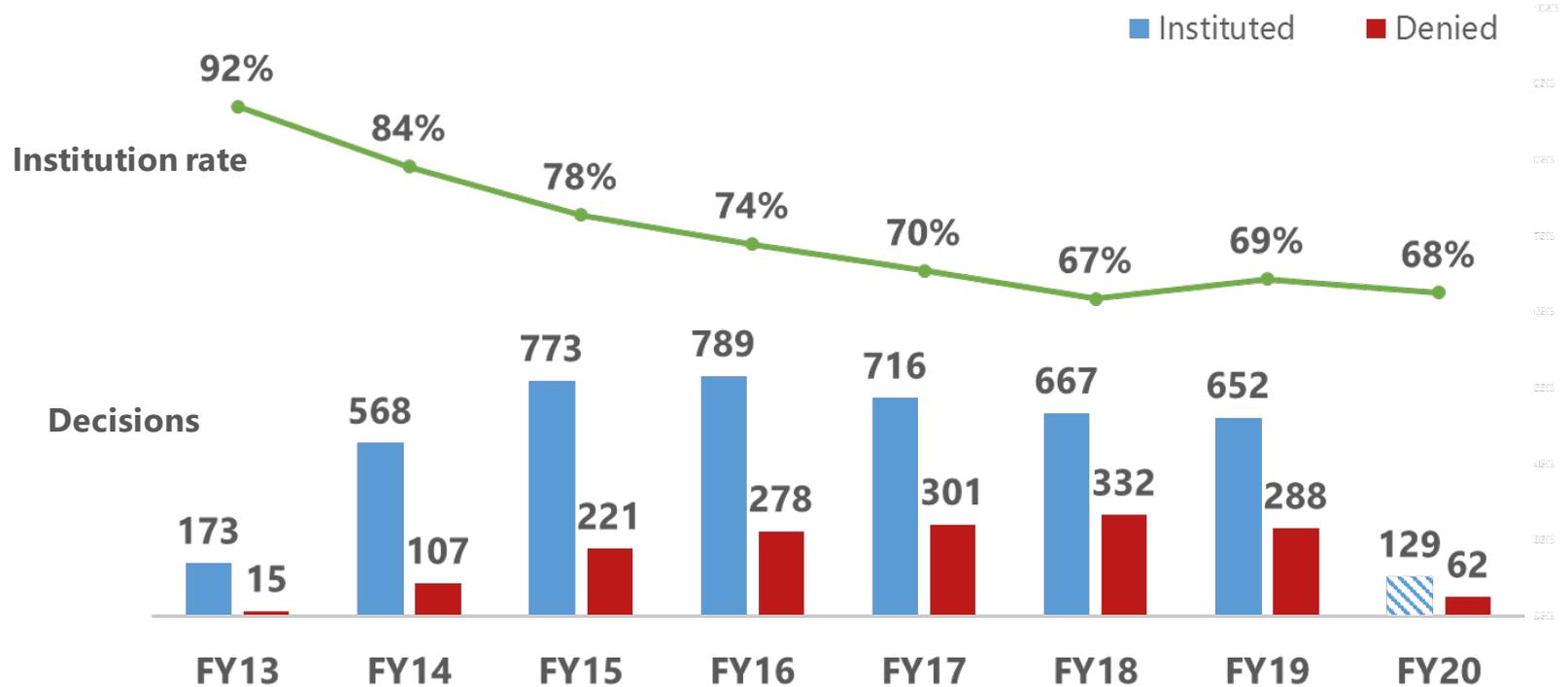
Institution rates by petition

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



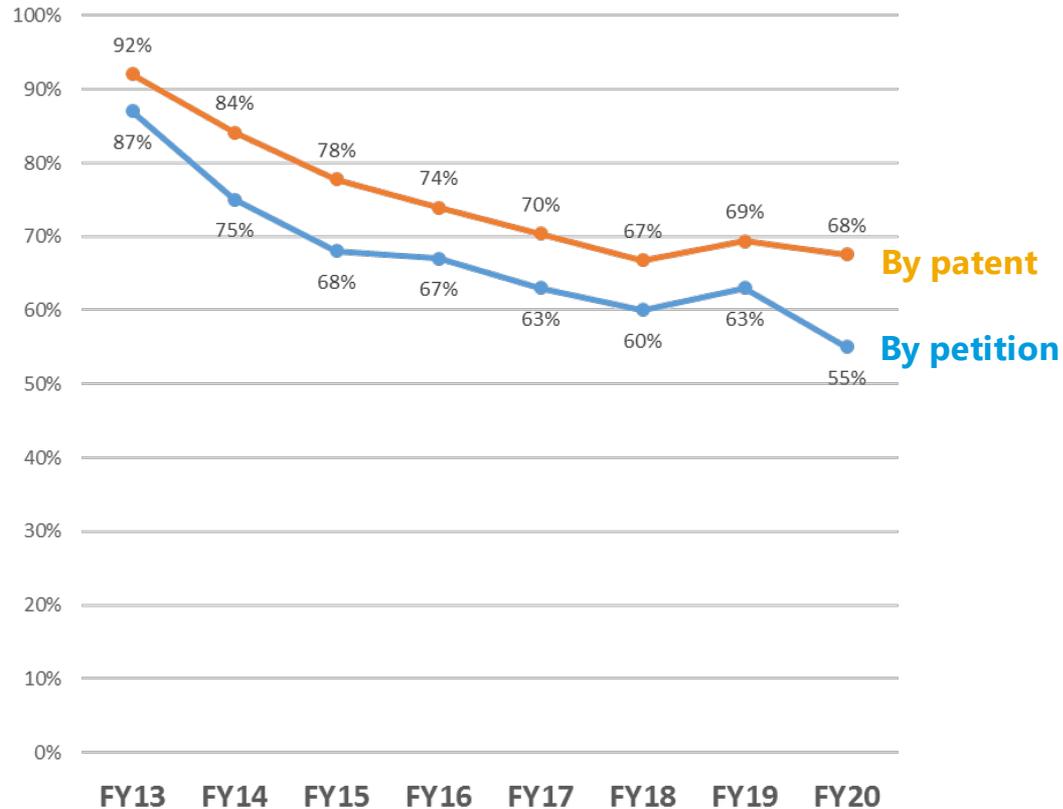
Institution rate for each fiscal year is calculated by dividing petitions instituted by decisions on institution (i.e., petitions instituted plus petitions denied). The outcomes of decisions on institution responsive to requests for rehearing are excluded.

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

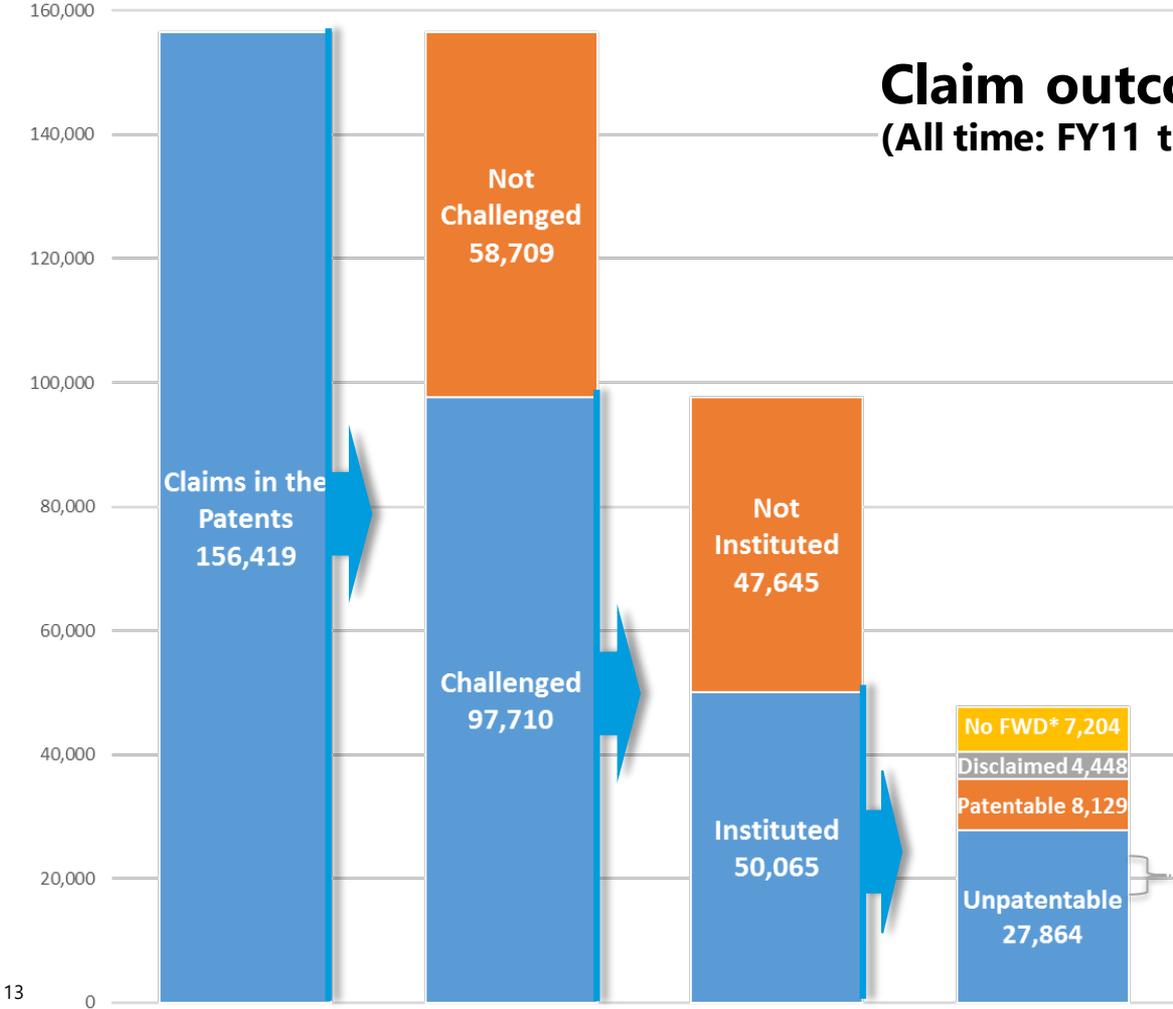


A patent is "instituted" if any petition challenging that patent is instituted. A patent is "denied" if no petitions challenging that patent are instituted. Patents that have not received a Decision on Institution are not included in this data set.

Institution rates by petition vs by patent



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

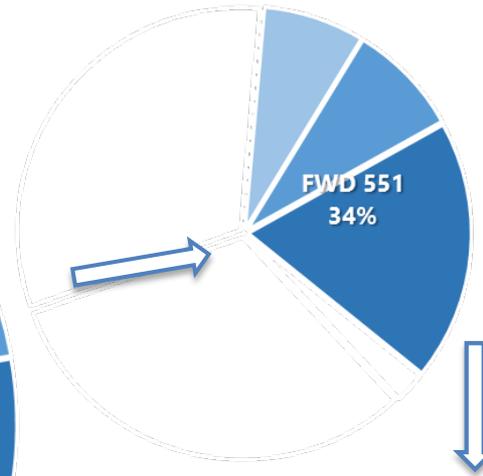
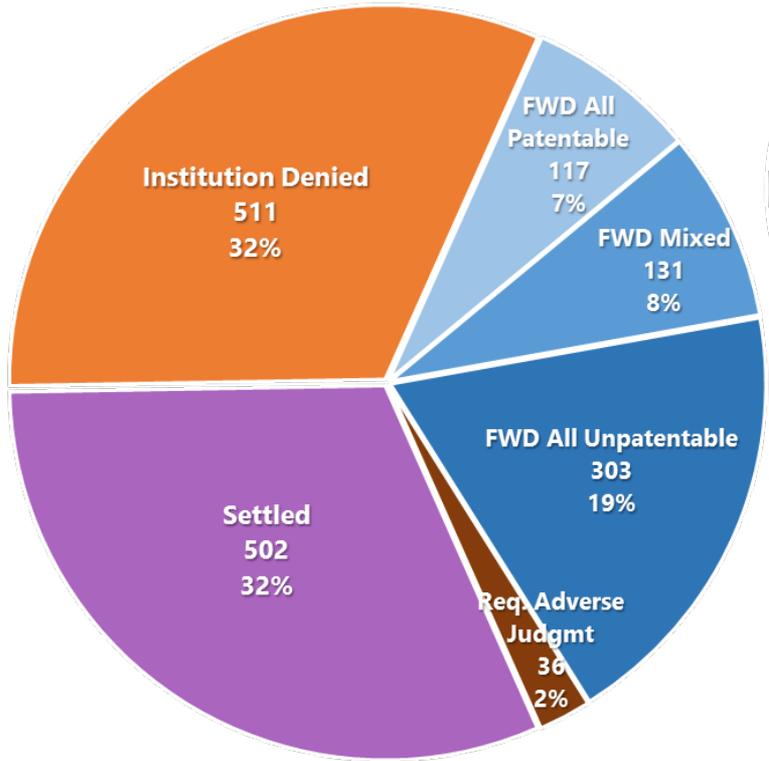


Pending cases are excluded.

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

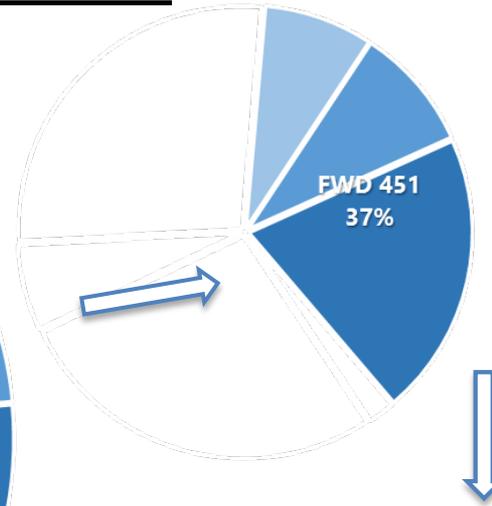
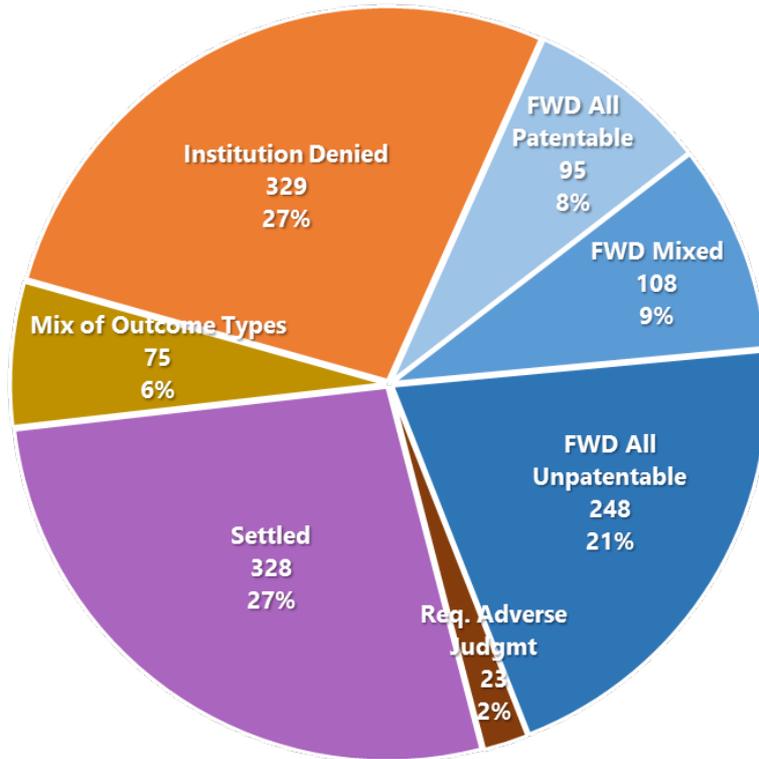


Percentage of the final written decisions

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

Joined and dismissed cases excluded.

Outcomes in FY19, by patent

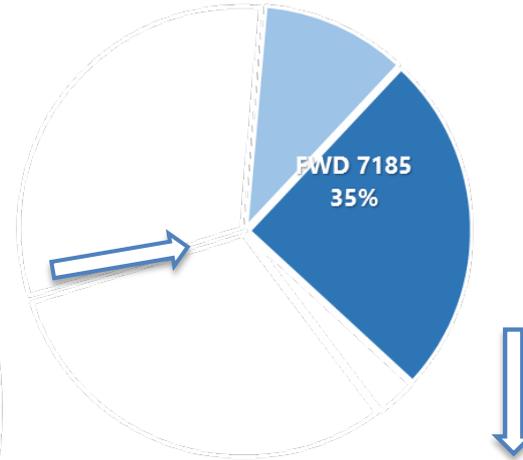
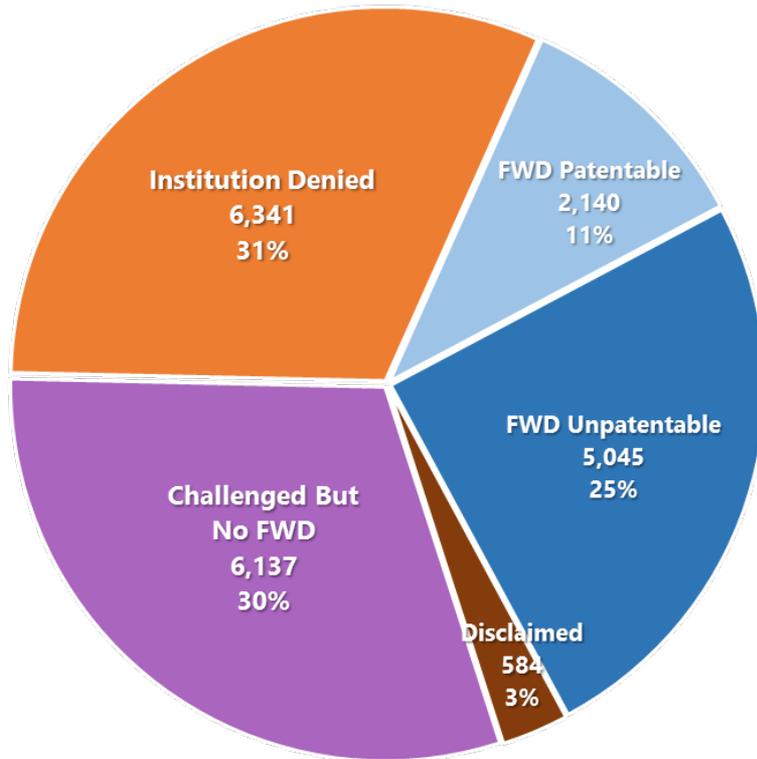


Percentage of the final written decisions

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

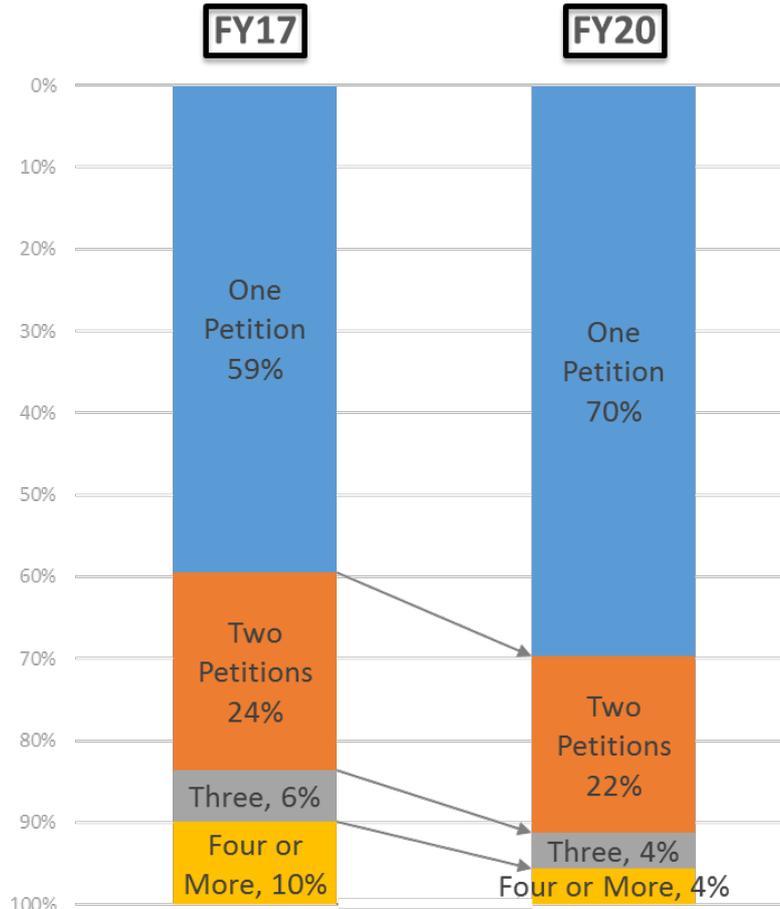


Percentage of the final written decisions

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 new AIA trial statistics in this deck.

Appendix

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 date reported on the slide. For example, FY19 datasets display the outcome of the petition, patent, or claim as of close of business on 9/30/2019.
- 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%.

Data definitions & methodology – per slide

Outcomes in FY19, by petition

- This Sankey graphic displays the results for each petition that reached an outcome in FY19 (10/1/2018 – 9/30/2019).
- “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.” A DI instituting a trial is not an outcome because the proceeding does not end there. Because it is a point of interest, however, it is generally included along with the outcomes.
- 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 where every claim in the patent was found unpatentable, versus those where all of the claims challenged were found unpatentable.
- The graphic displays, for each outcome category, how many cases fell into that category in FY19, and what percent of all outcomes fall into that category. For select categories, further percentages are provided to show percentages relative to other categories, such as percent of instituted cases or percent of FWDs.

Outcomes in FY19, by patent

- This Sankey graphic displays the results for each patent that saw an outcome (defined above) in one of its petitions in FY19.
- First, each patent that had a petition reach an outcome in FY19 was identified. Then, the outcomes of all of the petitions challenging that patent were considered. Outcomes occurring after FY19 were not considered.
- Outcomes by patent mirror the outcomes by petition categories. However, because it is possible that there may be more than one petition challenging a patent, and not all of the petitions challenging a patent may have the same outcome, outcomes by patent are an aggregate 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.
- If there is more than one petition, and there are a mixture of different outcome types, then the outcome is “mix of 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 were considered. Claim outcome determination is discussed in greater detail in the methodology for the “by Claim” slide, to follow.
- As explained for the Petition Sankey above, pending and joined cases excluded.
- The graphic displays, for each outcome category, how many cases fell into that category in FY19, and what percent of all outcomes fall into that category. For select categories, further percentages are provided to show percentages relative to other categories, such as percent of instituted cases or percent of FWDs.

Data definitions & methodology – per slide

Outcomes in FY19, by claim (two versions)

- These two Sankey graphics display the results for each claim that reached an outcome in FY19.
- The results shown are for the claims of the patents from the “by Patent” slide, i.e., all patents having a proceeding reach an outcome in FY19.
- For each of those patents, the underlying proceedings were analyzed to capture claim-by-claim information. Each claim in the patent was noted and then considered individually for whether the claim was: challenged, instituted, found unpatentable, found patentable, or disclaimed.
 - “Unpatentable” and “patentable” mean *PTAB found* the claim unpatentable or patentable *in a FWD*, i.e., under 35 U.S.C. 318(a).
 - “Disclaimed” means the *patent owner* requested adverse judgment on, disclaimed, or otherwise canceled the claim. Typically listed as “RAJ” to save space.
 - A claim was “instituted” if any ground listing that claim was instituted.
 - A claim was “challenged” if it appeared in any ground.
 - A claim was “in patent” if it was listed in the patent at the time any petition was filed.
- If a claim appeared in more than one petition, the outcomes were determined using the following precedence: unpatentable > disclaimed > patentable > instituted > challenged > listed in patent.
- The outcome reported for a given claim of a given patent is assigned to one and only one of these 6 categories. For example, if a claim has been found unpatentable and patentable in two different proceedings, then according to the precedence, the claim is listed as unpatentable. As another example, if a claim has been challenged but never instituted, it appears only as “challenged.”
- The graphics display, for each outcome category, how many cases fell into that category in FY19, and what percent of all claims in all patents fall into that category. For select categories, further percentages are provided to show percentages relative to other categories, such as percent of instituted cases or percent of FWDs.

Data definitions & methodology – per slide

“In Fiscal Year 2019:” 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 3.6 million patent number is an estimate of the number of unexpired patents existing during FY19. 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 FY19. 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 two significant digits reported in the 3.6 million number.

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.
- Thus, if a patent is challenged in FY17 and its petition is denied, that patent is counted as a denial in FY17. If that same patent 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.
- On the other hand, 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.
- In this way, 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.

Data definitions & methodology – per slide

Claim outcomes of patents

- This graphic shows the outcome of all claims challenged at PTAB through the end of FY19.
- The data has the same categorization and methodology as the “Outcomes in FY19 – by Claim” slide.

Outcomes in FY19 (by Petition, by patent, and by claim) (Pie graphs)

- These pie graphs show the same data as the Sankey graphics. Dismissals have been removed, however, because there are so few and to make room for the other categories of interest.
- The data otherwise has the same categorization and methodology as the corresponding Sankey graphs.

Multiple petitions: Pre-*General Plastic* vs. today

- This graphic shows the incidence of multiple petitions in FY17 and FY20.
- For FY17, each patent challenged that year was identified. Then, each petition filed in or prior to FY17 was counted to determine how many times that patent was challenged as of the end of FY17. The counts were then tallied to provide the reported numbers. Similar methodology was applied for FY20.
- FY17 was chosen because the *General Plastic* decision, setting forth factors to determine whether to institute on multiple petitions, was issued at the beginning of FY18. Thus, FY17 best represents petition filing behavior prior to that decision.
- FY20 was chosen because many new cases furthering *General Plastic* were issued in late FY19, meaning that petition filing behavior accommodating those new cases would first be seen in FY20. As of the time this presentation was made, FY20 data included all of Q1.
- Note on calculating “% Change.” To calculate the percent increase or decrease between a first and second number, take the second number and divide by the first, then subtract 1 (\$1.00 to \$1.25 is $1.25/1-1 = 0.25 = 25\%$ increase. \$1.00 to \$0.75 is $1/.75-1 = -.25 = 25\%$ decrease). The same applies to any number, including percentages.



Thank you!

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