Strategic Predictions: Leveraging Art Unit Allowance Rates to Drive the Selection of Appeal Decision Makers

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Upon reaching an impasse with an examiner during prosecution of a patent, an applicant may initiate an ex parte appeal of a rejection, thereby requesting review by the Patent Trial and Appeal Board (PTAB). [1] Such action can result in considerable expense and delay. [2] However, we previously reported that a substantial portion of appeals are terminated quickly by the examiner, via issuance of either an allowance or office action. [3] Thus, initiating an appeal process may result in several different outcomes that significantly differ with respect to delay, cost, and allowance prospects. Data more precisely identifying the probability of each outcome with respect to particular instances may allow applicants to make more strategic and informed appeal-entry decisions.

Stages of an Appeal and General Statistics

A full appeal cycle has several sequential stages. At the first stage, applicants file an appeal brief. [4] At the second stage, the examiner issues an examiner's answer in response to the appeal brief. [5] Lastly, at the third stage, the PTAB issues its final decision on the appeal. [6] To investigate the distribution of appeal outcomes at various stages, we used LexisNexis PatentAdvisor to identify each appeal brief filed between January 1, 2010 and December 31, 2011. The PatentAdvisor data tracked each of these appeals throughout its appeal cycle, so as to identify the stage at which the appeal exited the appeal process and the next significant event after exiting the appeal process.

As we previously reported, approximately 40 percent of all appellants exited the appeal cycle after filing an appeal brief, but before an examiner's answer was issued. [7] About half of this group of "early exiters" received an allowance as the next significant event. The other early exiters received a new office action. Empirically, however, reopening prosecution was not necessarily bad news for appellants: more often than not, these appellants ultimately received an allowance (e.g., after one or more rounds of prosecution with the examiner). The appeal-exit dynamic changes after the examiner issues an examiner's answer, as predecision appeal-cycle exits are very rare (less than 5 percent) and most of these exits are initiated by the appellant. [8]

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Of those appeals for which a PTAB decision is rendered, 47 percent were reversed or reversed in part. [9] However, the PTAB decision is not completely predictive of the next event following the decision. For example, of the applications for which full reversal PTAB decisions were issued, only 90 percent received next-action allowances. Of the remaining full reversals, 8 percent received new office actions and 2 percent either had reopened prosecution via a request for continued examination (RCE) or had abandoned the application. Among the applications receiving a full affirmance decision, 68 percent were then abandoned, while 28 percent were followed by an RCE. [10]

These corps-wide statistics thus indicate that filing an appeal brief is considerably likely to lead to an examiner-initiated expedient action rather than a delayed PTAB decision. Applicants disfavoring the potential multiyear delay of PTAB decisions may thus determine that an appeal is a desirable strategy. However, the above-presented statistics are corps-wide. Ideally, an applicant could consider more specific predictions tied to characteristics of a particular application.

Using Art Unit Allowance Rates to Predict Appeal Outcomes

Our previous analysis of appeal data identified that appeal outcomes can be more precisely predicted upon considering data for a particular art unit (AU) to which an application had been assigned. [11] Such a result may be observed due to the required involvement of an AU's supervisory patent examiner (SPE) in the appeal cycle. [12] SPEs naturally have a harmonizing influence on the examiners they oversee, because a SPE is the first-line manager of an AU and is generally engaged in day-to-day supervision of examiners' work product. [13] Further, SPEs generally must sign off on appeal-related actions. To illustrate, a SPE must sign an examiner's answer, thereby supporting a decision that the appeal should proceed toward a PTAB decision. Conversely, if an examiner concludes that the appeal should not move forward after reviewing the appellant's appeal brief, the examiner *must* get his or her SPE's approval before issuing a new office action or a notice of allowance. [14] For SPEs inclined to allow applications, an examiner's proposal of pulling an appeal out of the appeal cycle to allow the case may have a better-than-average chance of being accepted—this would likely lead to a higher AU allowance rate. However, the converse is also true.

Before Examiner's Answer, AU Allowance Rate Is Predictive of Appeal Outcome

Extending our previous analysis, we investigated whether a SPE's allowance tendencies influence an AU's general allowance rate and would also influence whether an appeal proceeds to the PTAB. We assigned each appeal in our data to a bin reflecting a 10 percent range of AU allowance rates. For example, the first bin includes all appeals that had been assigned to an AU with an allowance rate of 10 percent or below. Generally, each AU is supervised by one or two SPEs, such that an AU's allowance rate is typically reflective of a SPE's allowance tendencies. We then calculated the portion of appeals within each bin for which various events occurred following filing of the appeal brief. Thus, we identified the portions of the appeals that exited the appeal process via an office action, notice of allowance, abandonment, or RCE, and the portion of the appeals for which an examiner's answer was issued.

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As shown in figure 1, the data supports our hypothesis: the post-brief allowance probability is correlated with the AU allowance rate. For example, in the two bins representing the lowest AU allowance rates, the percentage of briefs leading to a next-event allowance was less than 5 percent. Meanwhile, the allowance probability was less than 30 percent for the two bins representing the highest AU allowance rates.

If Appeal Reaches PTAB, AU Allowance Rate Is Not Predictive of PTAB Decision

Once an examiner's answer has been issued, it is extremely unlikely that an appellant will experience an examiner-initiated appeal exit. The next event in the appeal cycle will almost always be the PTAB decision. Accordingly, we determined the distribution of PTAB decisions for each AU allowance rate bin. Specifically, we determined what percentage of the PTAB decisions reversed each rejection at issue, what percentage affirmed each rejection at issue, and what percentage affirmed only a portion of the rejections at issue (i.e., were "split").

Here, the outcome (PTAB decision) is not correlated with the AU allowance rate (see fig. 2). Rather, the PTAB is rather consistent in its affirmance probability. Overall, the PTAB fully affirms roughly 50 percent of the appeals and fully reverses roughly 34 percent of the appeals.

Leveraging Decision Makers to Inform Applicants' Appeal-Entry Decisions

This data can be used to craft strategic appeal-entry decisions. More specifically, an applicant may be able to predict who will be a final decision maker in an appeal cycle for a given application. In general, the appeal cycle involves several decision makers: the primary examiner, the SPE, and the PTAB. The primary examiner decides whether to issue an examiner's answer or to propose pulling the appeal out of the appeal cycle to his or her SPE. [15] The SPE decides whether to approve (or initiate) pulling the appeal out of the appeal cycle. [16] Lastly, the PTAB is the decision maker for appeals that reach the end of the appeal cycle. [17] As explained in further detail below, our data suggests that applications in various AUs differ with regard to a probability of reaching particular types of decision makers. For example, applications in high-allowance-rate AUs are less likely to reach the PTAB decision maker. Figure 3 shows a decision tree for navigating various appeal-entry scenarios outlined below.

Applications in Low-Allowance-Rate AUs: Changing Decision Maker May Be Advantageous, but Quick Allowance Is Unlikely

Upon reaching an impasse with an examiner, an applicant may welcome an opportunity to attempt to involve another decision maker via the appeal cycle. However, how quickly an applicant should elect such a strategy may be informed based on an assessment (e.g., a comparative assessment) of allowance (or affirmance) rates. For example, if the AU allowance rate is significantly lower than the PTAB's average affirmance rate of 50 percent, applicants could increase overall allowance chances by entering the appeal cycle and leveraging the PTAB as the decision maker. This scenario is shown in figure 3 by following the path formed between nodes A, D, and E. In these instances, the examiner is unlikely to reopen prosecution or allow the application. Thus, applicants are very likely to reach the PTAB, which will statistically improve their allowance chances from the low AU allowance rate to the higher PTAB affirmance rate. Further, applicants may desire involving another decision maker (other than the primary examiner or SPE) to move the application forward.

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Applications in High-Allowance-Rate AUs: PTAB Allowance Prospects May Be Unattractive, but Quick Allowance Is Common

Meanwhile, applicants with applications assigned to an AU with a high allowance rate may nonetheless benefit from initiating the appeal cycle. Specifically, if the AU allowance rate is higher than the PTAB's affirmance rate, applicants may benefit by leveraging the SPE as the decision maker. Again, a high AU allowance rate is more likely to result in an early appeal exit, which generally results in an applicant win as shown by our empirical data. Figure 3 illustrates this scenario by the path formed between nodes A, C, D, and F. However, filing an appeal brief to engage the SPE is one of several options. Alternatives include the pre-appeal pilot, an interview with the examiner and the SPE, and (if renewed) the post-prosecution pilot (P3). [18]

Reengaging Primary Examiner Can Save Applicants a Costly Headache

Lastly, if the examiner's allowance rate is higher than the AU's allowance rate, applicants may be better off reengaging the primary examiner in prosecution until a true impasse occurs. In this case, the suggestion is that the primary examiner is more inclined to allow the application than the SPE, such that it would be unlikely that the SPE would initiate or agree to reopen prosecution or allowing an application during an appeal cycle. Accordingly, time is better spent trying to strike a deal with the primary examiner because the examiner can unilaterally allow the application without needing his or her SPE's approval. Figure 3 illustrates this scenario by the path formed between nodes A and B. Conversely, if the examiner's allowance rate is lower than the AU's allowance rate, involving the SPE or even the PTAB as another decision maker may improve applicants' allowance prospects.

Conclusions and Takeaways

Appeal-entry decisions are often burdensome. While a significant portion of appellants quickly exit the appeal cycle with positive results, most appellants remain in the cycle with large time and money investments. Further exacerbating the frustration, appellants may endure the time and cost burdens of appealing without achieving positive outcomes. Naturally, an optimized strategy for navigating appeal-entry decisions would greatly benefit applicants. Our empirically supported strategies, discussed above, show that data analytics in prosecution can make an easy solution out of a large problem.

Savvy applicants can leverage the correlation between AU allowance rate and chance of success at the PTAB to inform a decision as to whether to initiate the appeal process. For example, an applicant with an application in a high-allowance-rate AU can predict that initiating the appeal process has a 19 percent chance of a fast allowance, [19] and a 21 percent chance of reopening of prosecution, which often leads to an allowance. [20] Roughly half of those appeals include a rejection reversal by the PTAB. [21] Thus, overall, an appeal is quite likely to lead to a reversal of a rejection, whether such a reversal is initiated by an examiner (or the examiner's SPE) or by the PTAB. The applicant can weigh these favorable statistics with statistics and/or experiences indicating how likely an allowance would be in response to continued engagement of the examiner.

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Conversely, appellants are statistically less likely to exit the appeal cycle before reaching the PTAB in cases where the application is assigned to a low-allowance-rate AU. However, presenting arguments to new decision makers may be particularly valuable in these circumstances. After the answer is issued, both the appellant and the examiner tend to hold their positions. Accordingly, applicants stuck in low-allowance-rate AUs should be prepared when an appeal is initiated to commit to the full appeal cycle.

Therefore, understanding the impact of AU allowance rates on prosecution and appeal strategies is crucial. Appeal decisions can be productively guided by an assessment that utilizes both big data appeal statistics and an appreciation for an application's particular prosecution and decision-maker position. n

Endnotes

1. *See generally* U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 1204 (9th ed. Rev. 07.2015, Nov. 2015).

2. *See* AM. INTELLECTUAL PROP. LAW ASS'N, REPORT OF THE ECONOMIC SURVEY I-117 (2013).

3. Kate S. Gaudry & Sameer Vadera, *The Appeal Process: The Statistical Likelihood of Success*, 8 LANDSLIDE, no. 4, Mar.–Apr. 2016, at 12; Kate Gaudry & Sameer Vadera, *Ex Parte Appeal as a Potential Means to Quick Allowances*, IPWATCHDOG (Mar. 21, 2016), http://www.ipwatchdog.com/2016/03/21/ex-parte-appeals-quick-allowances/id=67297/.

4. *See* MPEP, *supra* note 1, § 1205.

5. *See id.* § 1207. The appellant has the opportunity to file a reply brief within two months after issuance of the examiner's answer. Appellants are not normally required to file reply briefs; however, when the examiner's answer sets forth a new ground of rejection, the appellant must respond in a reply brief. In addition, appellants must pay a forwarding fee of $2,000 within two months after issuance of the examiner's answer in order for the appeal to be forwarded to the PTAB.

6. *See id.* § 1213.

7. Gaudry & Vadera, *The Appeal Process*, *supra* note 3, at 15.

8. *Id.* at 16.

9. *Id.*

10. *Id.*

11. Sameer Vadera & Kate Gaudry, *Predicting the Success of Claim-Rejection Appeals*, LAW360 (May 15, 2017), http://www.kilpatricktownsend.com/~/media/Files/articles/2017/Predicting%20The%20Success%20Of%20Claim-Rejection%20Appeals.ashx.

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12. *Id.* Specifically, at least in some capacity, AU allowance decisions tend to be driven by SPEs. A typical SPE is responsible for training and managing roughly 13–20 examiners in an AU. Andrew Faile, Dir., USPTO Tech. Ctr. 2600, Introduction to the USPTO (June 15, 2007), http://www.uspto.gov/patent/laws-and-regulations/examination-policy/introduction-uspto-slide-set-html-text-version.

13. David Kappos, *SPE Performance Appraisal Plan-Award Taskforce*, DIRECTOR'S F. (Dec. 23, 2009), http://www.uspto.gov/blog/director/entry/spe_performance_appraisal_plan_award.

14. *Id.*

15. MPEP, *supra* note 1, § 1207.

16. *Id.*

17. *Id.* § 1213.

18. The post-prosecution pilot was structured to accept 200 compliant requests per Technology Center. As of January 12, 2017, this limit has been reached for all Technology Centers. *See Post-Prosecution Pilot*, USPTO, https://www.uspto.gov/patent/initiatives/post-prosecution-pilot (last modified July 5, 2017).

19. Gaudry & Vadera, *The Appeal Process*, *supra* note 3.

20. *Id.*

21. *Id.*

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