

Lex Machina
Patent Litigation
Year in Review 2016



 **Lex Machina™**
a LexisNexis® Company

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Executive Summary

Lex Machina's fourth annual Patent Litigation Year in Review examines the key trends in the legal landscape of 2016 and places them in the context of recent years, showcasing the value of Legal Analytics® in informing business and strategic decisions about litigation.

This report provides insight into the quantitative aspects of patent litigation. Practitioners can find data to give them an edge at all stages of a case: from top parties and firms for business development or outside counsel selection, to jurisdictional analysis, the timing of key case events, the likelihood of winning invalidity or infringement findings, all the way to data on damages. Regardless of which side of a complaint (or retainer agreement) one finds oneself, understanding the data behind the business of patent litigation has become indispensable to assessing strategic opportunities and risk, and to budgeting accordingly.

This report examines the key axes of legal data and their interactions, drawing upon Lex Machina's platform that combines data from PACER, the Patent Trial and Appeal Board (PTAB), the U.S. International Trade Commission (ITC), the U.S. Food and Drug Administration (FDA) Orange Book on Abbreviated New Drug Applications (ANDAs), and more.

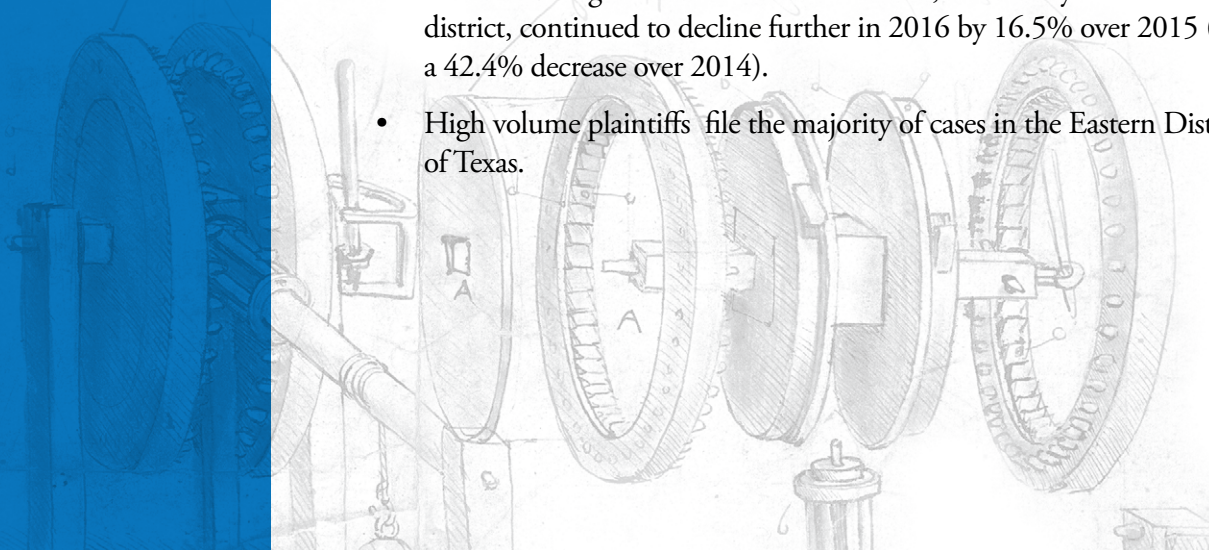
Key trends and highlights from 2016 include:

Filing Trends:

- In 2016, 4,537 patent cases were filed - a 22% decline from 2015.
- Cases were filed relatively evenly the last three quarters of 2016.
- The Eastern District of Texas continues to lead the nation by number of new cases filed in 2016 - 1,662 cases were filed there in 2016, representing a 34% decrease over the district's 2015 total (2,541 cases).
- The Eastern District of Texas saw 36.7% of the cases filed in 2016, and that percentage increased each quarter.
- New case filings in the District of Delaware, historically the second top district, continued to decline further in 2016 by 16.5% over 2015 (itself a 42.4% decrease over 2014).
- High volume plaintiffs file the majority of cases in the Eastern District of Texas.

Lex Machina's 2016 Patent Litigation Year in Review surveys and summarizes the key trends that have emerged over the last year.

Based on the same data driving Lex Machina's platform, this report examines filing trends, case timing, motions, judges, top law firms, patent trends, parties, and damages to showcase the power of Legal Analytics.



The Eastern District of Texas

- While plaintiffs do not win on the merits disproportionately-often in the district, a low summary judgment grant rate, combined with local procedures that restricted parties from filing for summary judgment in the first instance, has produced an unusually high settlement rate.

Case Timing

- Central and Northern Districts of California saw faster median times to claim construction (about a year) than any of the Eastern District of Texas, the District of Delaware, or the national average (all a year and a half).

Motion Metrics

- Of motions to stay pending PTAB decided in 2015 and 2016, the Eastern District of Texas, the District of Delaware and the Northern District of California had similar grant rates of 55-60%, while the Central District of California districts denied motions to stay pending PTAB at a higher rate.

Design Patent and ANDA Litigation

- Although comprising a smaller fraction of the litigated patents, design patent litigation is far more consistent than utility patent litigation.
- Design patent litigation remains highly concentrated in the Central District of California, and that district saw its total increase 4.8% over 2015.
- ANDA cases rose sharply in 2014 into 2015, but have declined in 2016 to a level more commensurate with 2010-2011.
- ANDA litigation is heavily concentrated in the Districts of New Jersey and Delaware, each of which has had significantly more cases filed than the all districts below the top ten.

Judges

- Judge Gilstrap of E.D.Tex. has an astounding 1,119 cases assigned to him in 2016 - the fourth year in a row that he has had the most patent cases of any judge in the country. Judge Gilstrap's large caseload comes in part from him being assigned a large percentage of cases filed in the court's Marshall Division.
- Judge Gilstrap's large number of cases also put him at the top of the charts for most cases with findings and summary judgments.
- However, Judge Andrews of the District of Delaware is second both in most findings and most summary judgments.

Parties

- The top plaintiffs of 2016 include Shipping and Transit, Uniloc, and Sportbain Holdings.
- Shipping and Transit previously did business under the name ArrivalStar. This entity has featured as top plaintiff in previous years (as the top plaintiff of 2013 with 137 cases that year, and ranked the fourth in 2015 with 65 cases). In total, the two entities have brought over 500 patent lawsuits to date, but have not prevailed on the merits in any case so far.
- The top ten plaintiffs are all patent monetization entities (PMEs).

- Samsung remains the top defendant with 37 patent cases filed against it in 2016. Samsung topped the chart last year in 2015 with 64 cases as well).
- Apple, the leading defendant in 2013 and 2014, defended fewer cases in 2016 (26 cases) than LG Electronics (28 cases).
- The majority of both plaintiffs and defendants have the Eastern District of Texas as their top court. The only other court that appears as the top court for the listed defendants is the District of Delaware.

Law Firms

- Ferraiuoli handled the most plaintiff-side cases in 2016 (206 cases), primarily in the Eastern District of Texas, but is headquartered in San Juan, Puerto Rico.
- The top national firm of 2016 by plaintiff representation was Russ, August & Kabat with 110 cases (up from fourth in last year's ranking), followed by McCarter English with 74 cases (last report's top firm with 121 cases in 2015).
- The top national firm of 2016 by defendant representation is Fish & Richardson with 160 cases – more than double the next leading firm (Winston & Strawn, 61 cases). Also among the top firms are Perkins Coie (59 cases), and Alston & Bird (51 cases).
- Among Texas firms, Gilliam & Smith leads with 260 cases in 2016.
- Among Delaware firms, Morris, Nichols, Arsht & Tunnell tops the list with 181 cases in 2016 (as it did last year with 251 cases in 2015).

Patents and Patent Findings

- Findings of infringement tend to come from either trial or from consent or default judgment, while findings of non-infringement or invalidity are more likely to have come from summary judgment.
- The median time for a preliminary injunction is 3.8 months, and for permanent injunction is 11.6 months.

Remedies and Case Resolutions

- The majority - 74.6% - of patent cases terminating between 2009 and 2016 settled. Of those that did not, the largest block (15.3% of terminated cases) reach a procedural outcome, such as transfer or consolidation. Wins by the claimant (6.1%) are more common than wins for the claim defendant (4.0%).

Damages

- Compensatory damages continue to be awarded in few cases, around 1.8 % of the terminated cases filed since the year 2000.

In sum, this report illustrates the impact that Legal Analytics can have on key aspects of the business and practice of patent law in generalized way. The full power of Legal Analytics is revealed, though, when users engage with the platform, tailoring their analysis to produce the tactical or strategic insights particular to their circumstance. When users have the ability to “twist the dials,” the results provide a competitive advantage in landing clients, winning cases, and closing deals by making data-driven decisions.

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Lex Machina’s Data, Methodology, and Terminology

This report draws on data from Lex Machina’s proprietary intellectual property litigation database. Although some of our data is derived from litigation information publicly available from PACER (federal court system), EDIS (the ITC system), or the PTAB website, Lex Machina applies additional layers of intelligence to bring consistency to, and ensure the completeness of, the data. Beyond the automation, key areas of Lex Machina’s data are either human-reviewed or hand-coded by a dedicated team of attorneys to ensure accuracy.

This report analyzes trends in patent litigation. To determine whether a case is a patent case, others may blindly trust the Cause-of-Action (CoA) and Nature-of-Suit (NoS) codes entered in PACER. But Lex Machina actively analyzes complaints to ensure that patent cases filed under mistaken CoA/NoS codes (or a CoA/NoS code corresponding to a different claim, e.g. contract in a combined patent/contract case) are not missed. This same system also allows Lex Machina to filter out the many spurious cases that have no claim of patent infringement despite bearing a patent CoA/NoS code (e.g. false marking cases).

Moreover, due to inherent design limitations, PACER often shows inaccurate or corrupted information for older terminated cases. For example, when a lawyer leaves one firm for another, PACER may show closed cases that the lawyer worked on at the old firm as having been handled by the new firm. When combined with law firm splits, acquisitions, and mergers, these inaccuracies accumulate to render PACER data less reliable for older cases. Lex Machina, however, has a historic record going back to the first days of electronic filing on PACER (and other data going back even further). These snapshots, unique to Lex Machina, give us access to normalized contemporary data and enable us to provide more accurate data for older cases than someone using PACER today.

Lex Machina’s data is focused on the lower courts (District Courts, PTAB, and ITC) and does not include appeals or modifications of judgments on appeal.

What is an ANDA case?

The sale of new drugs in the United States is regulated by the Food and Drug Administration (FDA). Pharmaceutical companies launching new, branded drugs must file NDAs (New Drug Applications). The FDA also approves applications for new generic drugs, and makers may file abbreviated applications, either an ANDA or paper NDA (hybrid of a full NDA and an ANDA, also known as a “Section 505(b) (2)” application).

These abbreviated applications assert that the generic is a duplicate of a branded drug (ANDA) or differs from a branded drug but meets safety and efficacy standards based on published studies (paper NDA). Although ANDA and paper NDA cases differ in some important respects, this report considers them together as “ANDA cases” as they represent less than 3% of Hatch-Waxman litigation.

The Hatch-Waxman Act put in place the expedited approval processes for generics and in doing so launched a new type of patent litigation — cases with accused infringing products that are not yet on the market or even approved by the FDA at the time the lawsuit is filed. These cases are often tried by a judge and the generic maker frequently stipulates to infringement. The remedies sought often include injunctions with specific date bounds.

Lex Machina identifies as ANDA cases those patent infringement cases prompted by the filing of an ANDA or paper NDA by a prospective generic maker. This definition, however, does not include cases involving investigational new drugs, over-the-counter drugs or any process or product not requiring FDA approval, therapeutic biologic applications (biosimilars), or generics authorized by the branded drug maker.

Overview

Figure 1: New cases filed, 2007-2016, by year

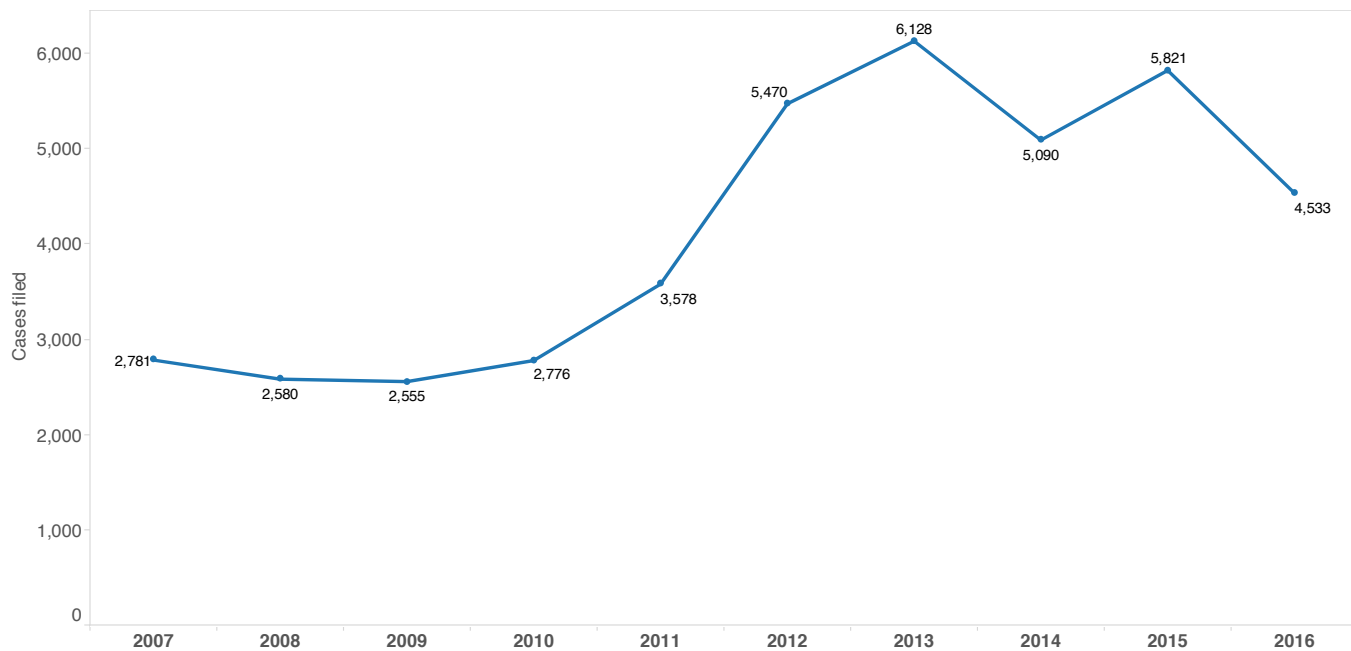
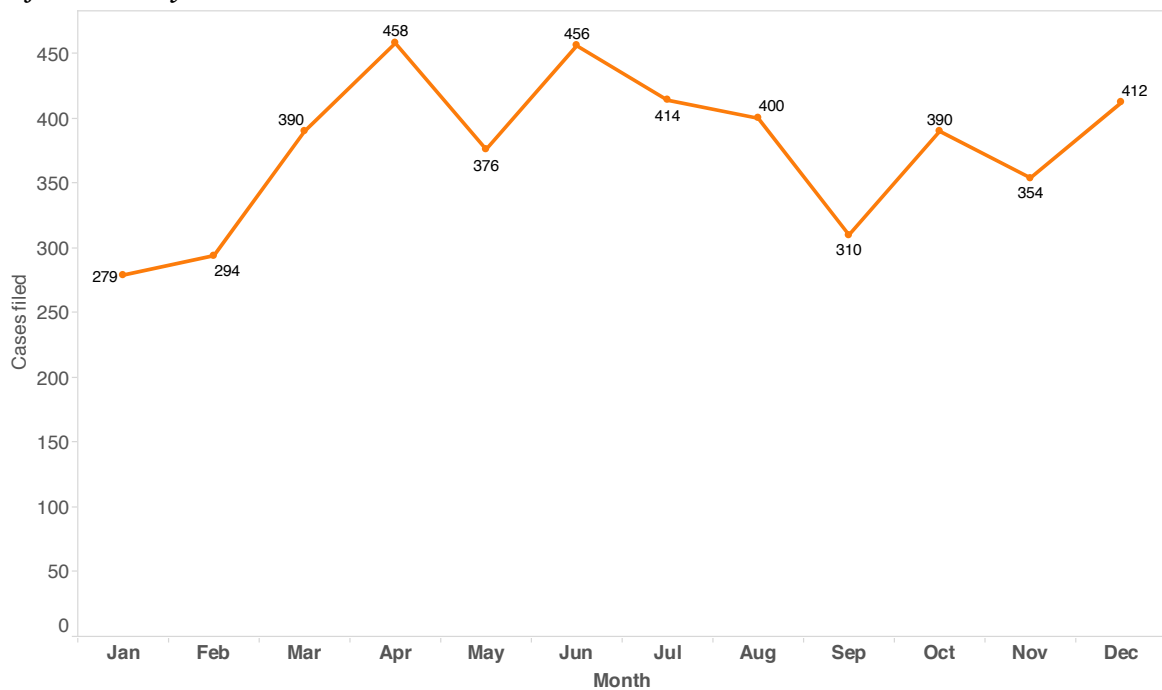


Figure 2: New cases filed, 2016, by month



Note: All charts reflect patent litigation in the U.S. District Courts except where otherwise stated.

In 2016, 4,537 patent cases were filed - a 22% decline from 2015.

Cases were filed relatively evenly the last three quarters of 2016. The first quarter may be somewhat lower due to a spike in November and December 2015 corresponding to a rule change that eliminates Form 18, the form often used to plead direct infringement claims in patent cases.

Figure 3: New cases filed, 2007-2016, by month

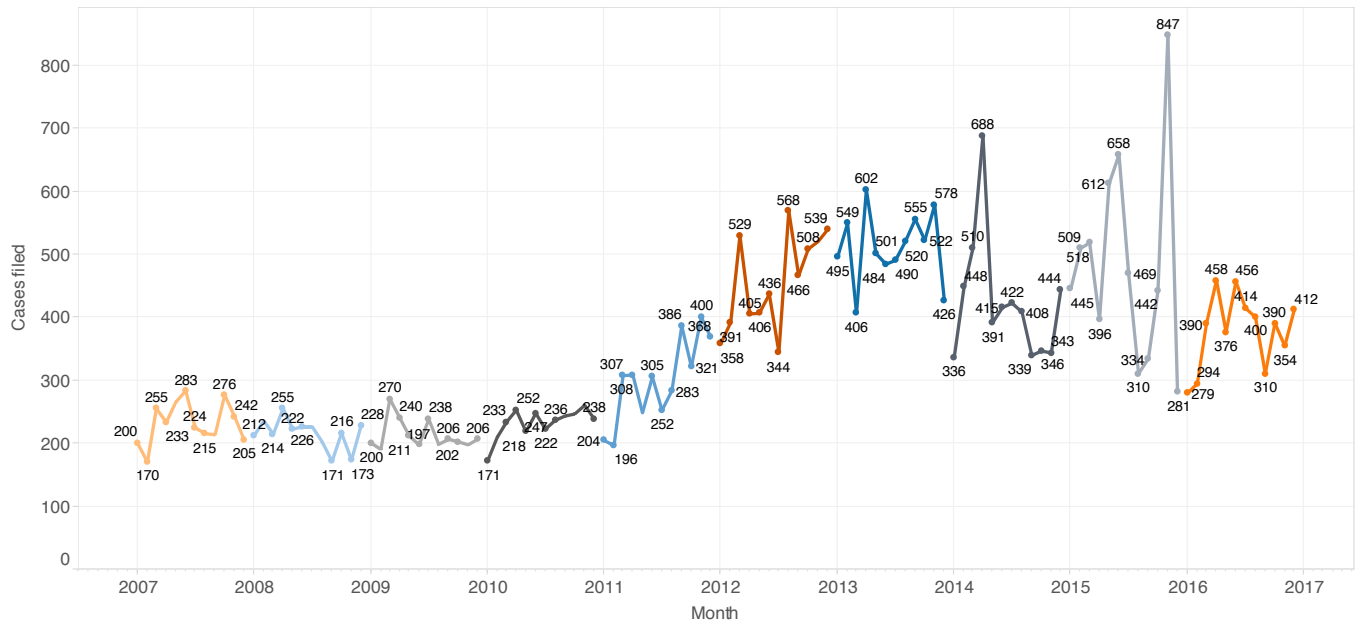
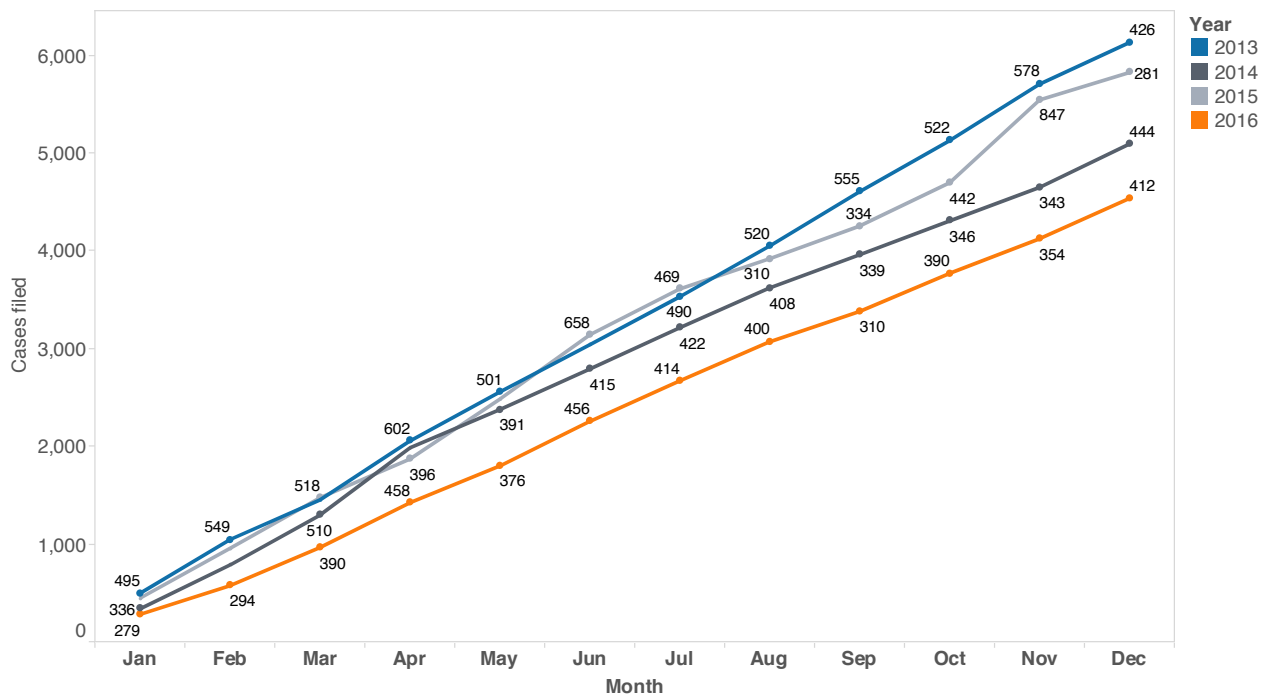


Figure 4: New cases filed, 2016 vs recent years, by month, cumulative



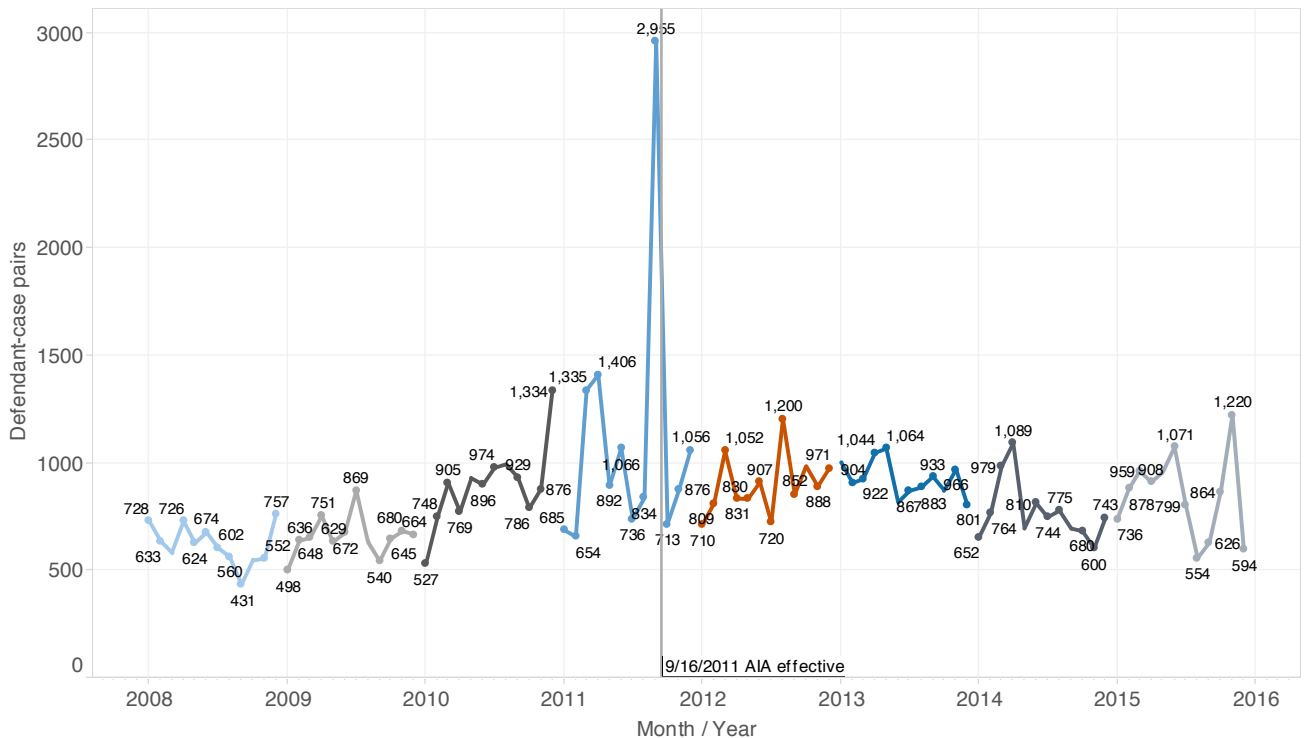
The America Invents Act (AIA), which became effective in September 2011, limited the number of defendants a plaintiff could sue in a single case. These anti-joinder provisions make case filing rates from before its enactment in 2011 incomparable with those from afterwards. For example, the AIA's restriction on suing multiple defendants in the same case means that a plaintiff would have to file more patent cases in 2016 than it would have in 2010 to sue the same number of defendants.

In order to understand the increase in litigation and what happens afterwards, it helps to count litigation in a way that is not affected by the AIA's change of rules, such as counting each defendant in a case separately (counting defendant-case pairs).

Measured by defendant-case pairs, the AIA did not dramatically reduce patent case filings, as the quarters from late 2011 to mid 2013 follow a trajectory consistent with those from 2009 to early 2011. This data also shows that litigation dropped in the last half of 2014 to a level more commensurate with 2009 and 2010 than the raw case filings alone would suggest.

The dramatic spike seen in late 2011 corresponds to the large number of cases filed in a small number of days against numerous defendants; this spike coincided with the effective date of the AIA's joinder provisions.

Figure 5: Defendant-case pairs, 2008-2016, by month



U.S. District Courts Top Districts

Figure 6: New cases in 2016, by district

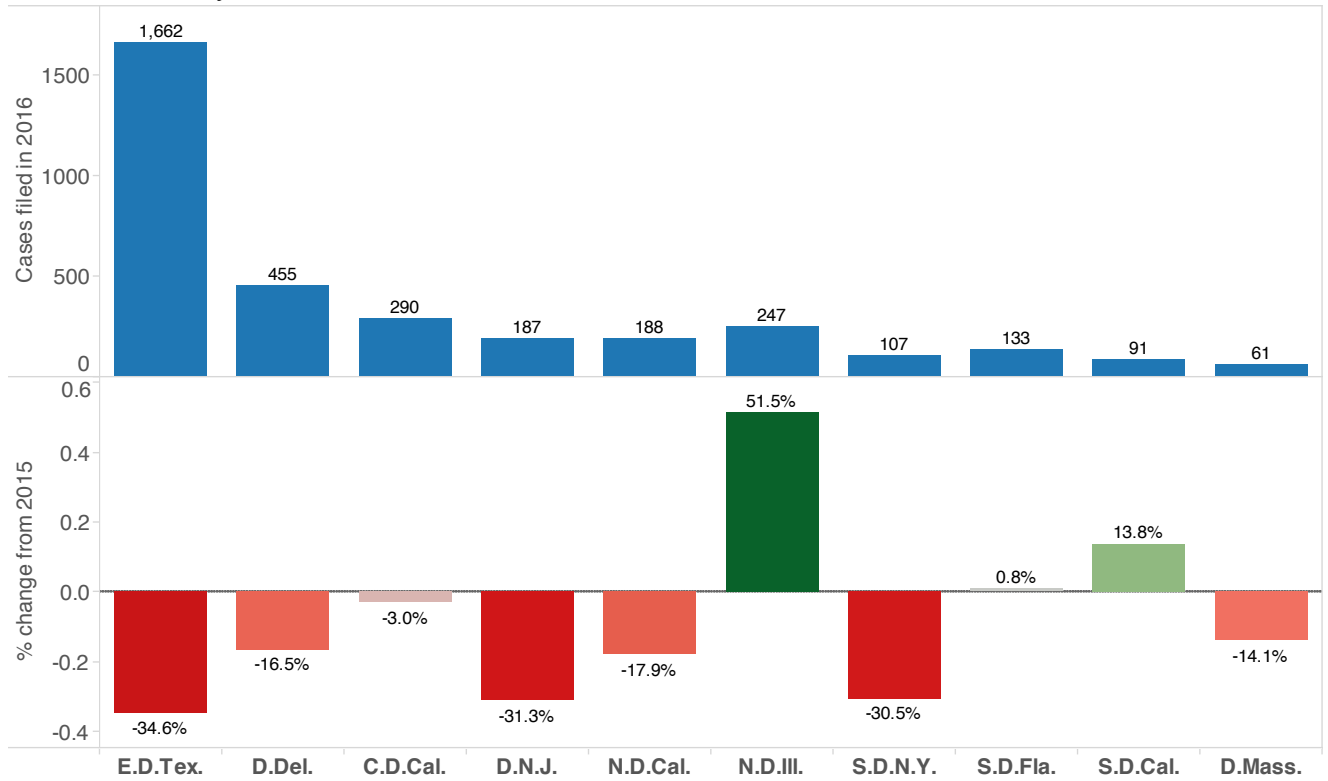
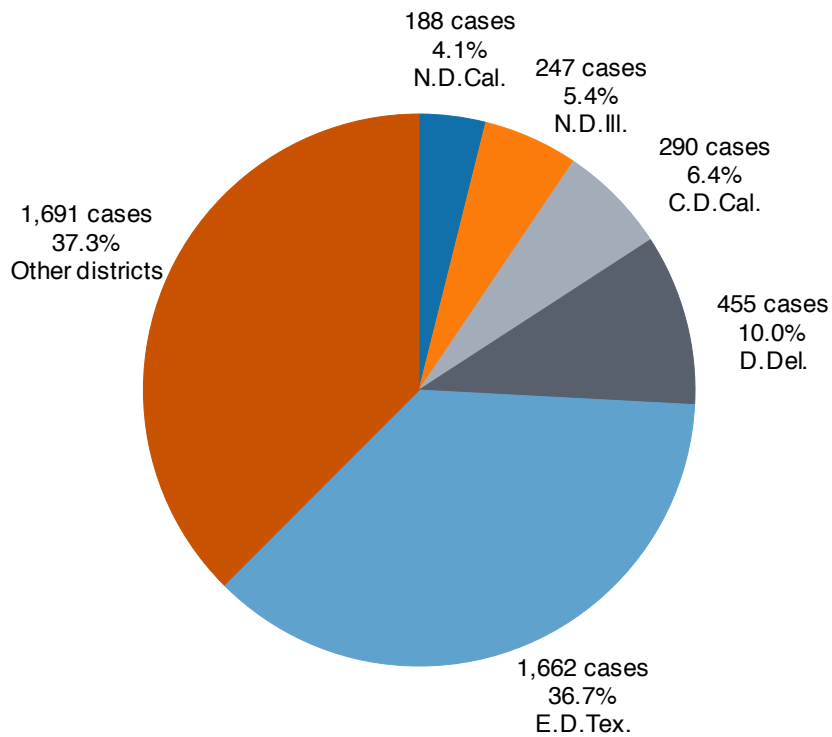


Figure 7: New cases pie, 2016, by district



Patent litigation is very unevenly distributed between the districts.

The Eastern District of Texas continues to lead the nation by number of new cases filed in 2016 - 1,662 cases were filed there in 2016, representing a 34% decrease over the district's 2015 total (2,541 cases).

The Eastern District of Texas saw 36.7% of the cases filed in 2016, and that percentage increased each quarter. For comparison, Delaware, the next most popular district, saw less 10%. In 2016, the number of cases filed in the Eastern District of Texas, plus those filed in the District of Delaware, is approximately equal to the number of cases filed in all other districts combined.

New case filings in the District of Delaware, historically the second top district, continued to decline further in 2016 by 16.5% over 2015 (itself a 42.4% decrease over 2014).

Figure 8: Net increase (left) and decrease (right) in new cases filed in 2016

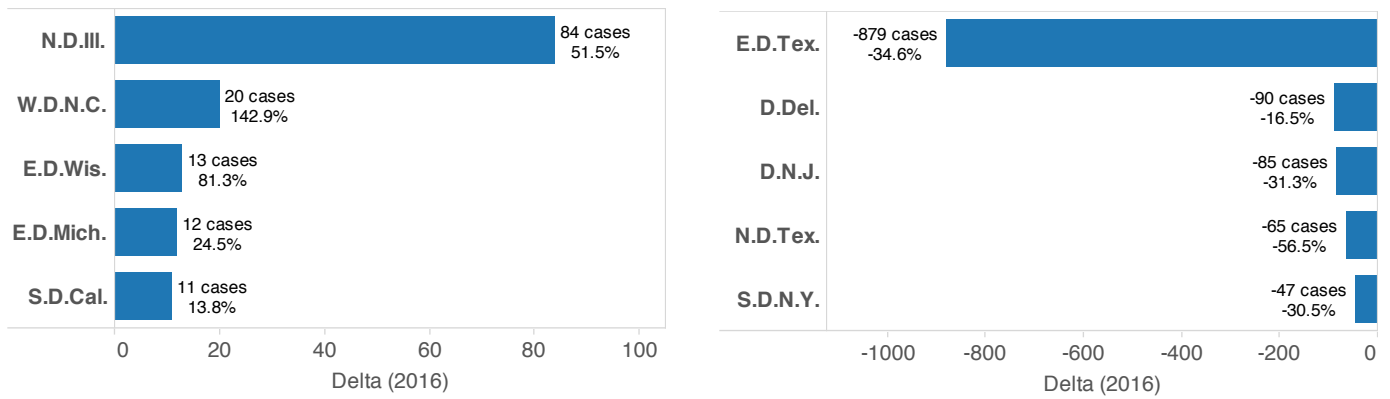


Figure 9: New cases, 2007-2016, by year

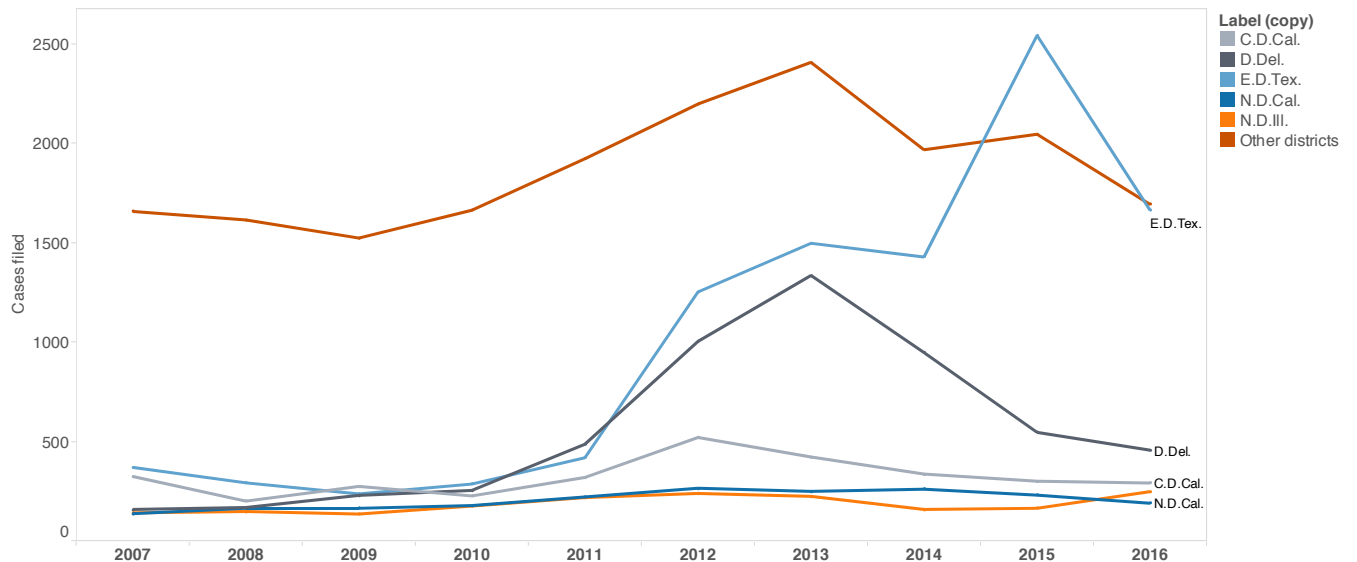
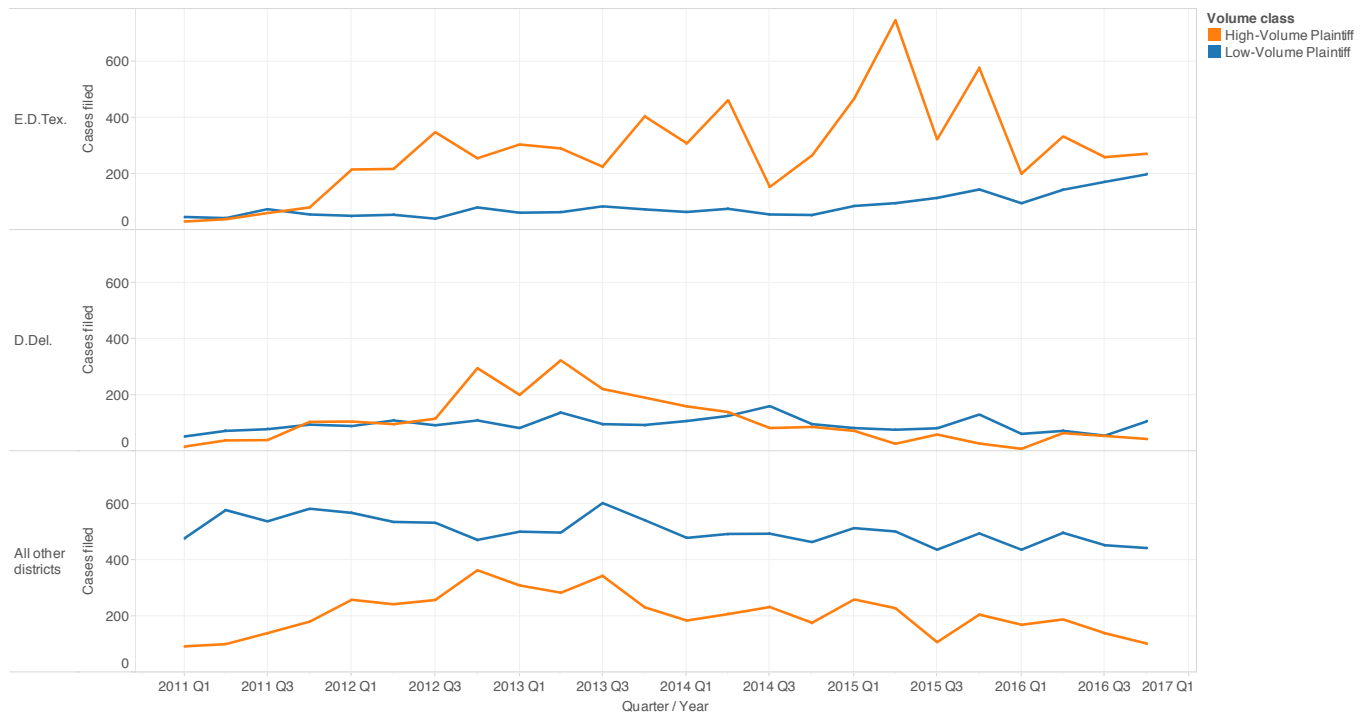


Figure 10: New cases in D. Del. and E.D. Tex., by year and plaintiff volume class, cases filed 2011-2016



High volume plaintiffs file the majority of cases in the Eastern District of Texas.

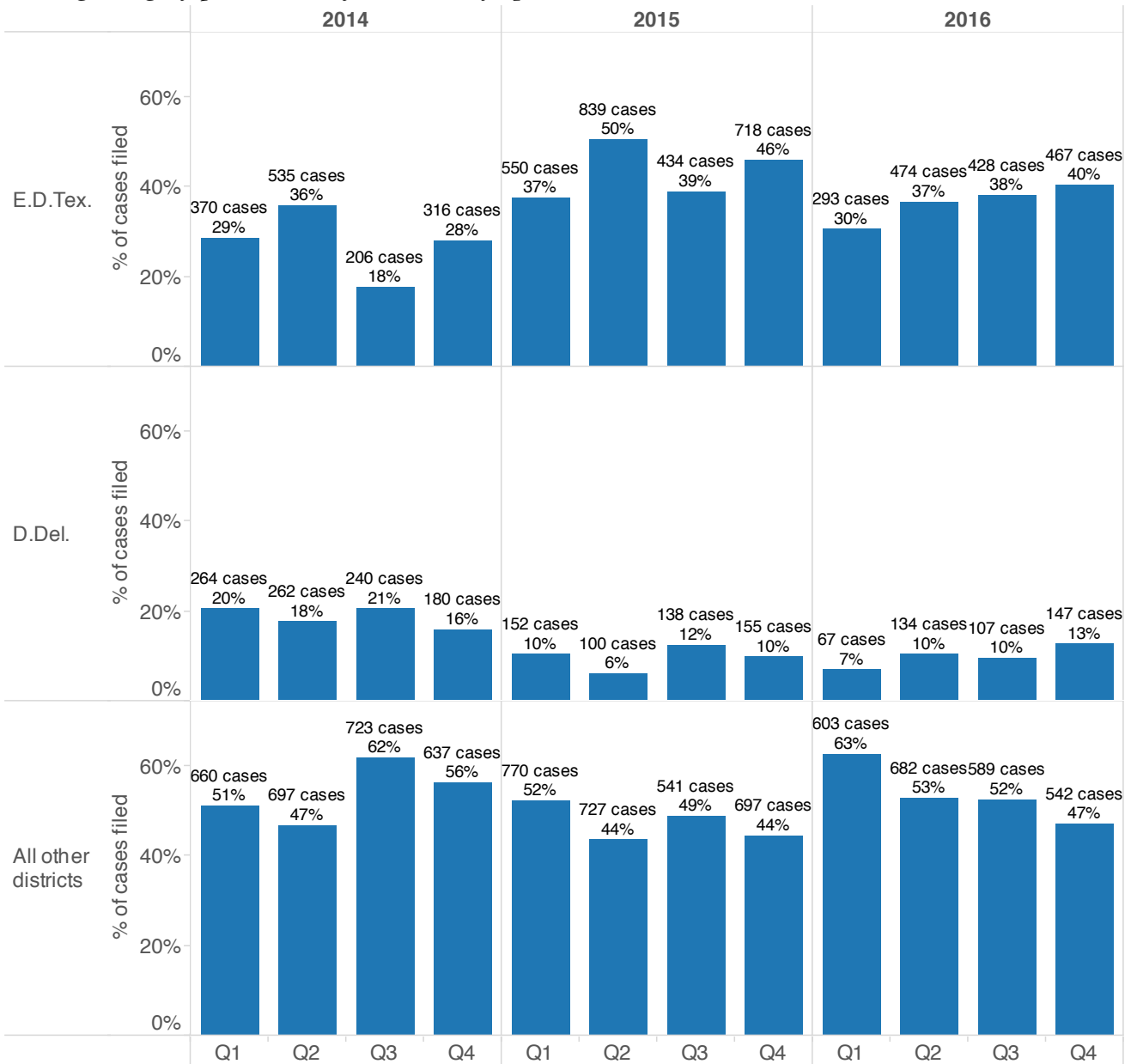
Two patterns emerge: first, high volume plaintiff litigation is more more variable (spikey) than low volume litigation, which is flatter and therefore more consistent and predictable over time. Second, high volume litigation is variable in the preference for districts - preferring Delaware around 2012-2013 and later the Eastern District of Texas from 2014 onwards.

Lex Machina defines a high volume plaintiff as a plaintiff who has filed at least 10 cases within a 365 day span.

Subscribers can now [explore](#) trends related this phenomenon - just filter down to (or exclude) high volume plaintiffs!

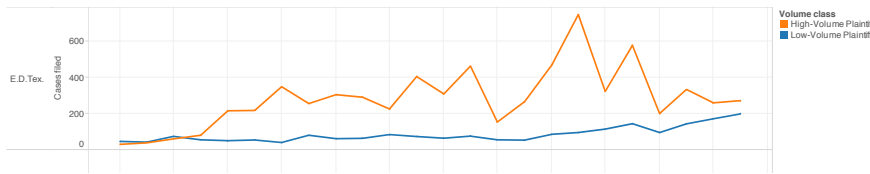


Figure 11: Percentage change by quarter in cases filed in 2016 by top district



A Quantitative Look at the Eastern District of Texas

In the last two years, approximately 35-40 percent of patent cases filed in the United States are filed in the Eastern District of Texas. See Fig. 11, left.



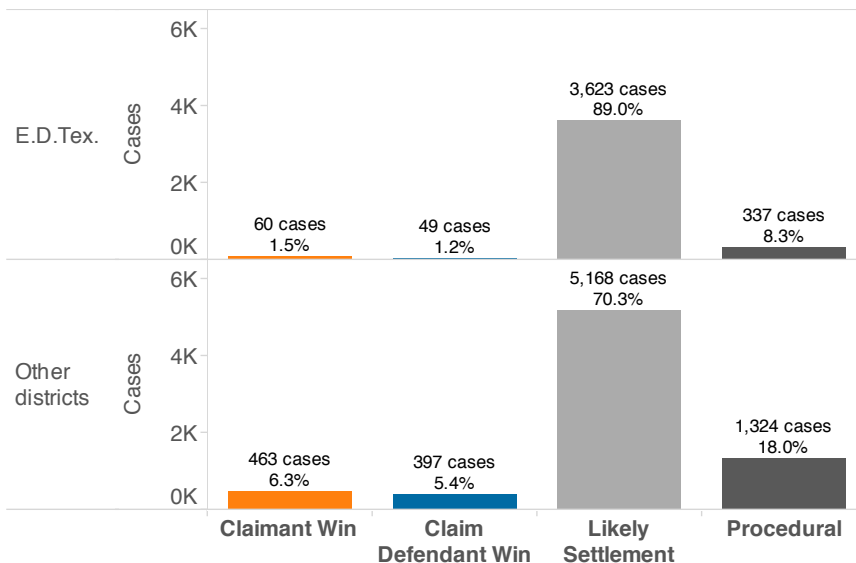
The concentration of litigation in the Eastern District of Texas is driven by few parties filing large numbers of cases - the high volume plaintiffs. See Fig. 10.

Many of the top plaintiffs prefer E.D. Tex. and most top defendants are sued in E.D. Tex. See Figs. 32-33.

Rank	Name	Top court	% cases in top court	Cases
1	Shipping and Transit, LLC	S.D.Fla.	58.9%	107 cases
2	Uniloc Luxembourg S.A.	E.D.Tex.	100.0%	87 cases
	Uniloc USA, Inc.	E.D.Tex.	100.0%	87 cases

Rank	Name	Top court	% cases in t.	Cases
1	Samsung Electronics America, Inc.	E.D.Tex.	45.9%	37 cases
2	Samsung Electronics Co., Ltd.	E.D.Tex.	45.2%	31 cases
3	LG Electronics, Inc.	E.D.Tex.	53.6%	28 cases
4	Apple Inc.	E.D.Tex.	38.5%	26 cases
5	Amazon Web Services, Inc.	E.D.Tex.	91.3%	23 cases

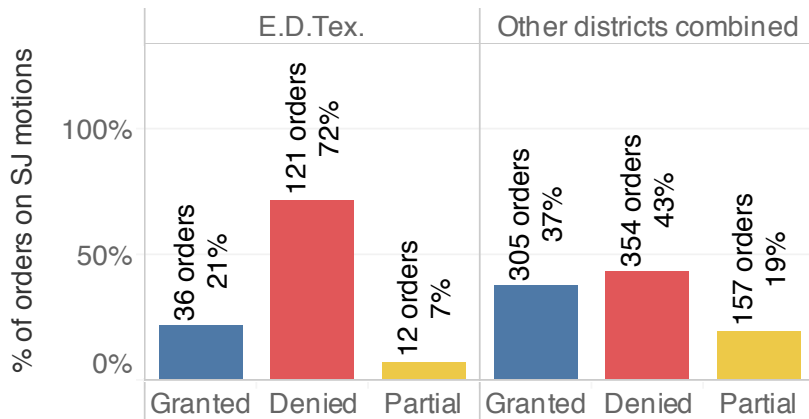
Figure 12: Case resolutions, E.D. Tex. vs other districts



The district does not disproportionately favor plaintiffs on the merits - the ratio of claimant win to claim defendant win is similar to other districts.

But far more cases settle in E.D. Tex. relative to elsewhere (89% vs 70% in other districts in patent cases terminated 2015-2016).

Figure 13: Summary judgment grant rate in cases filed 2013-2015



What explains this high settlement rate?

Cases filed 2013-2015† in the Eastern District of Texas are less likely to see a granted summary judgment motion. The corresponding risk and cost of facing trial may drive settlement.

† This time frame was chosen because cases typically take about 1-3 years to reach summary judgment.

Not only are summary judgment motions less likely to be granted in E.D. Tex., but summary judgment motions are less likely to be filed in the first place.

Several judges in the Eastern District of Texas (including Judge Gilstrap - who alone is assigned an astonishing percentage of patent cases - see Fig. 28) have [until recently required parties to file a 5 page letter brief seeking permission before even filing for summary judgment.](#)* In cases where this permission is not granted, no summary judgment motion is filed.

Although these procedures have been justified as judicial efficiency, the effect is to make the chances of a successful summary judgment even lower, and to obscure by how much (as motions not filed do not count as denied).

No rule requires disclosure of settlement terms, therefore no reliable, unbiased data can be compiled on the economic consequences of this elevated settlement rate.

Figure 14: Cases filed 2013-2015

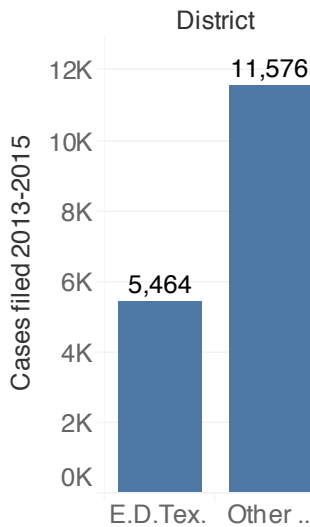


Figure 15: Cases filed 2013-2015 with a summary judgment motion filed

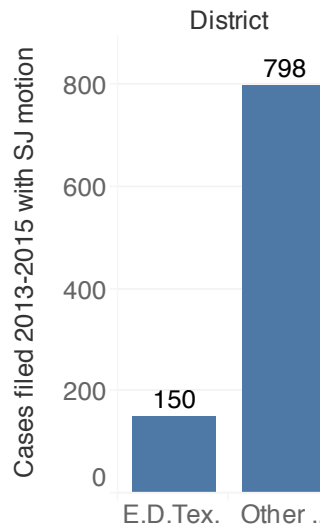
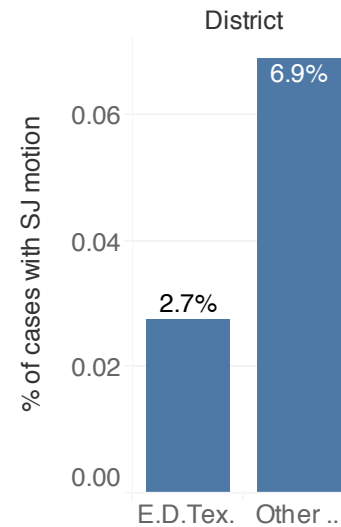


Figure 16: Percentage of cases where a summary judgment motion is filed



* See <https://www.law360.com/articles/820536/gilstrap-eases-filing-of-patent-summary-judgment-motions>

Timing and Motions in Top Districts and Nationally

Lex Machina's timing analytics can help companies and counsel alike by providing data with which to make key decisions about strategy and budgeting.

For example, litigants in both Central and Northern Districts of California can budget less time and money on claim construction, as those districts saw faster median times to claim construction (about a year) than any of the Eastern District of Texas, the District of Delaware, or the national average (all a year and a half).

However, when it comes to trials, Delaware and Eastern Texas offer less variability - 75% of trials in both districts occur several months before the same can be said of either California districts. Of the districts, Central California shows the most variability, more so than the national average, making it less predictable and more difficult to budget for.

Figure 17: For top districts, cases filed 2005-2015 and reaching a claim construction hearing in 2012-2016

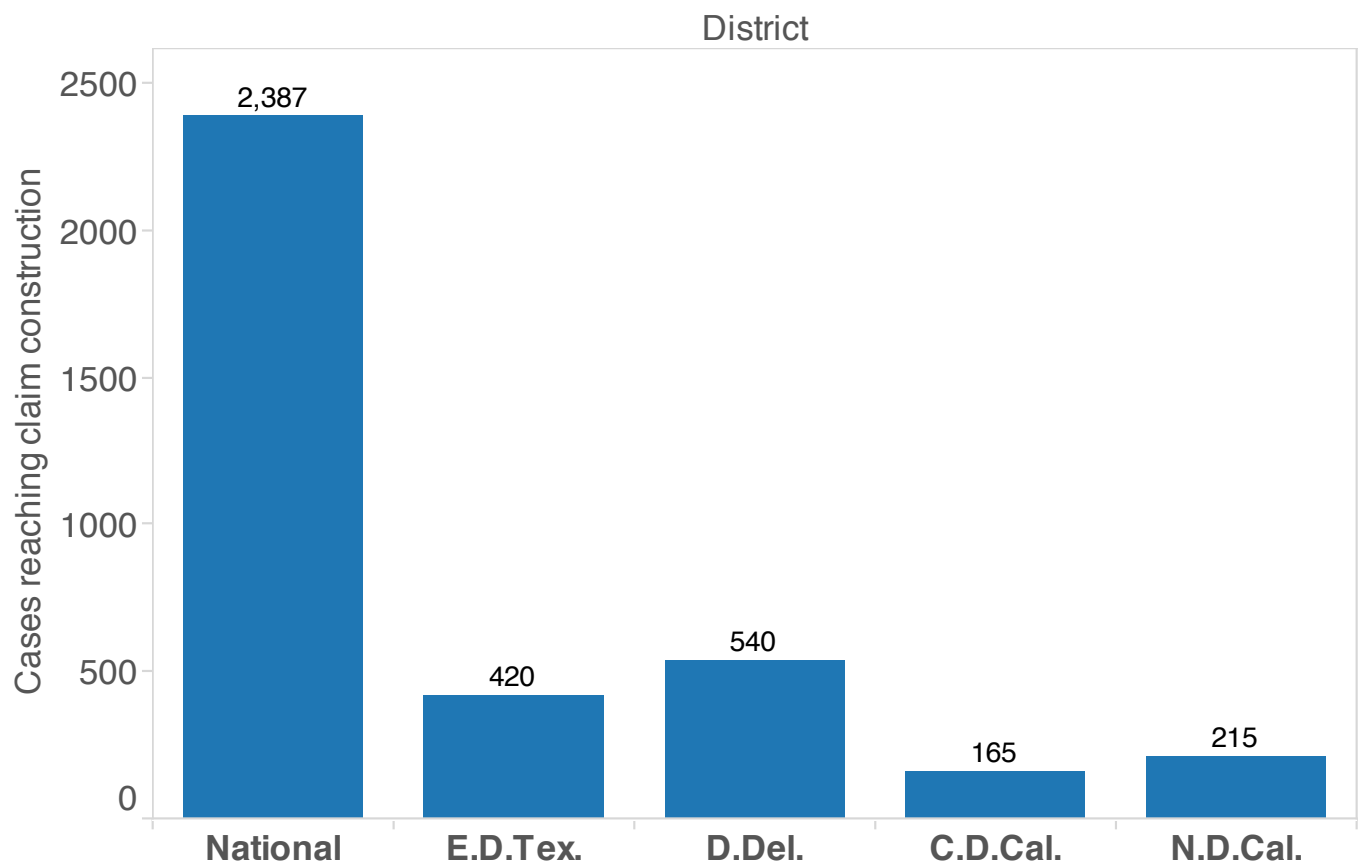


Figure 18: For top districts, timing by cases filed 2005-2015 and reaching a claim construction hearing in 2012-2016

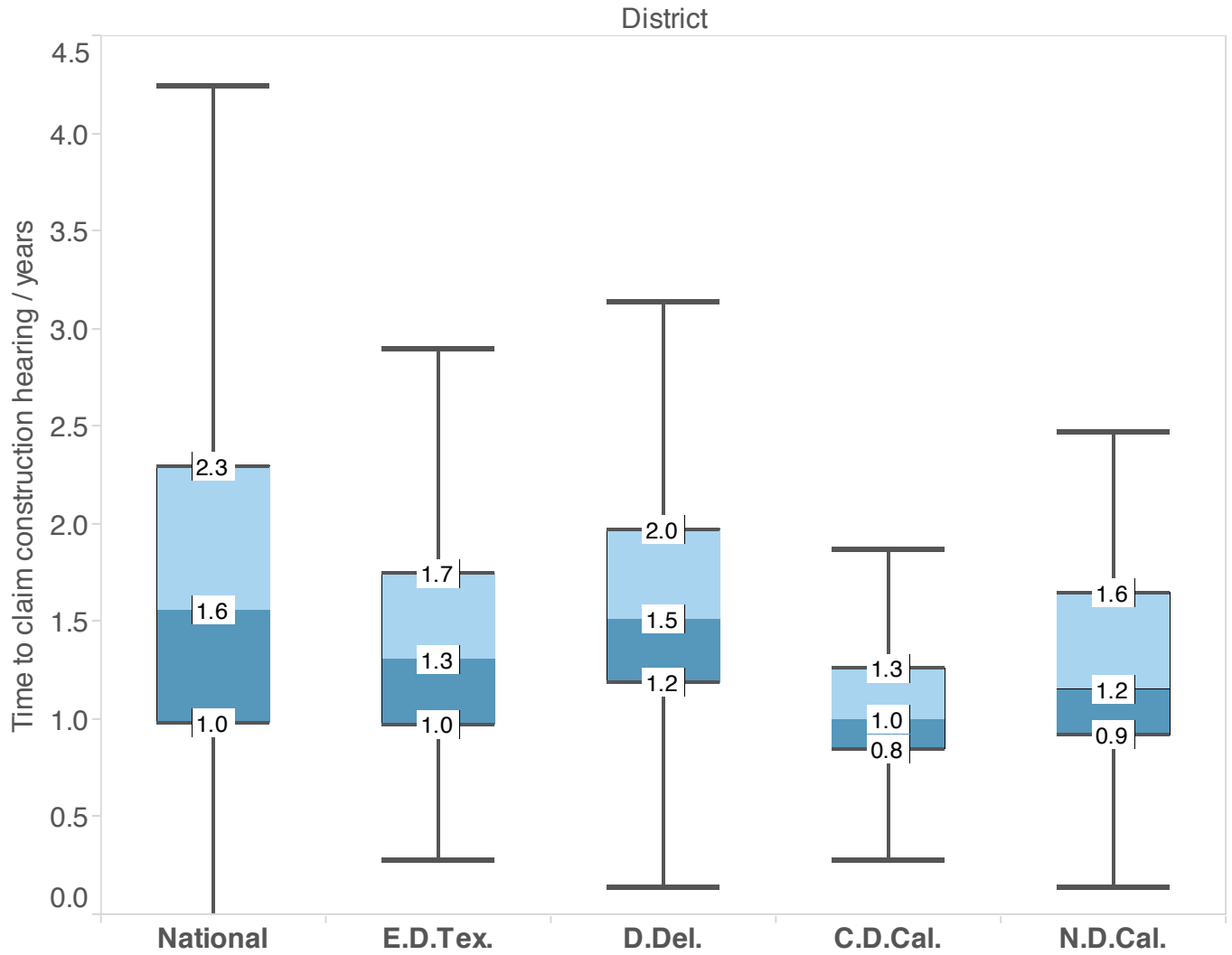


Figure 19: For top districts, cases filed 2005-2015 and reaching trial in 2012-2016

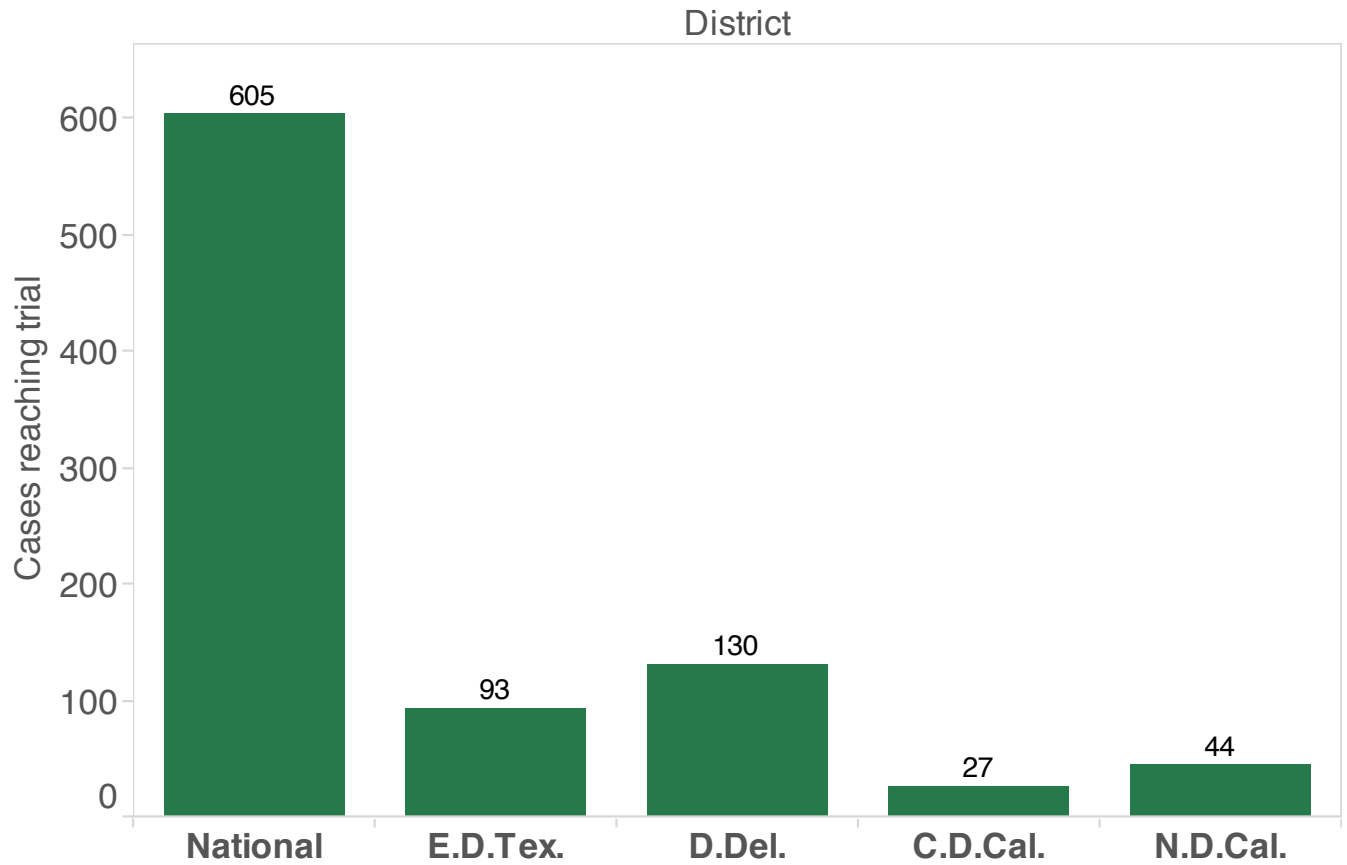


Figure 20: For top districts, timing by cases filed 2005-2015 and reaching trial in 2012-2016

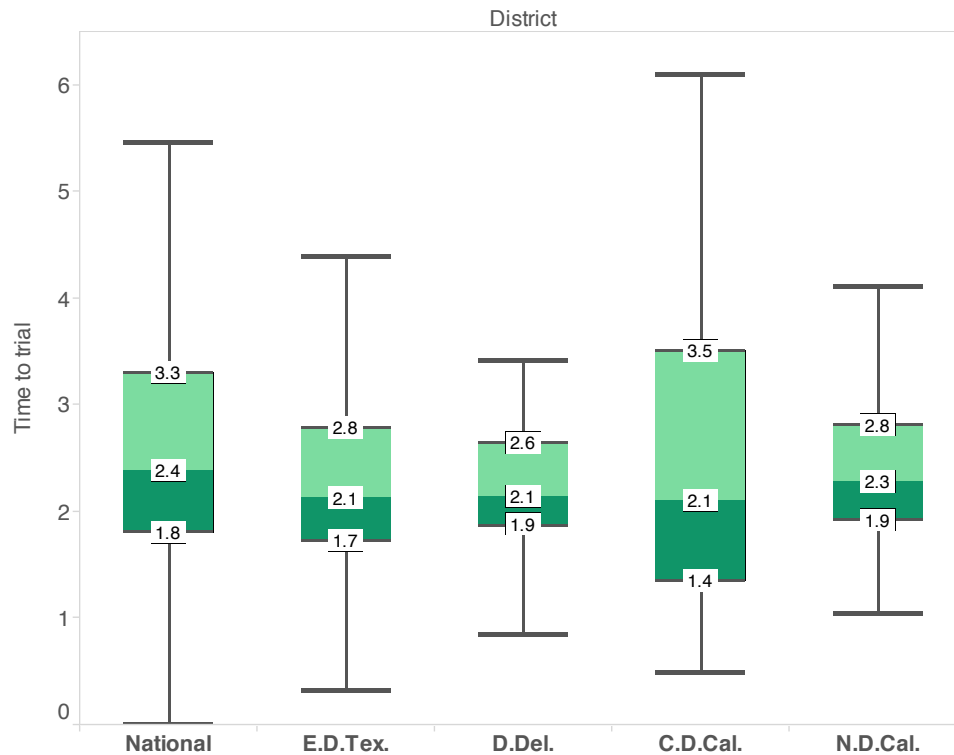
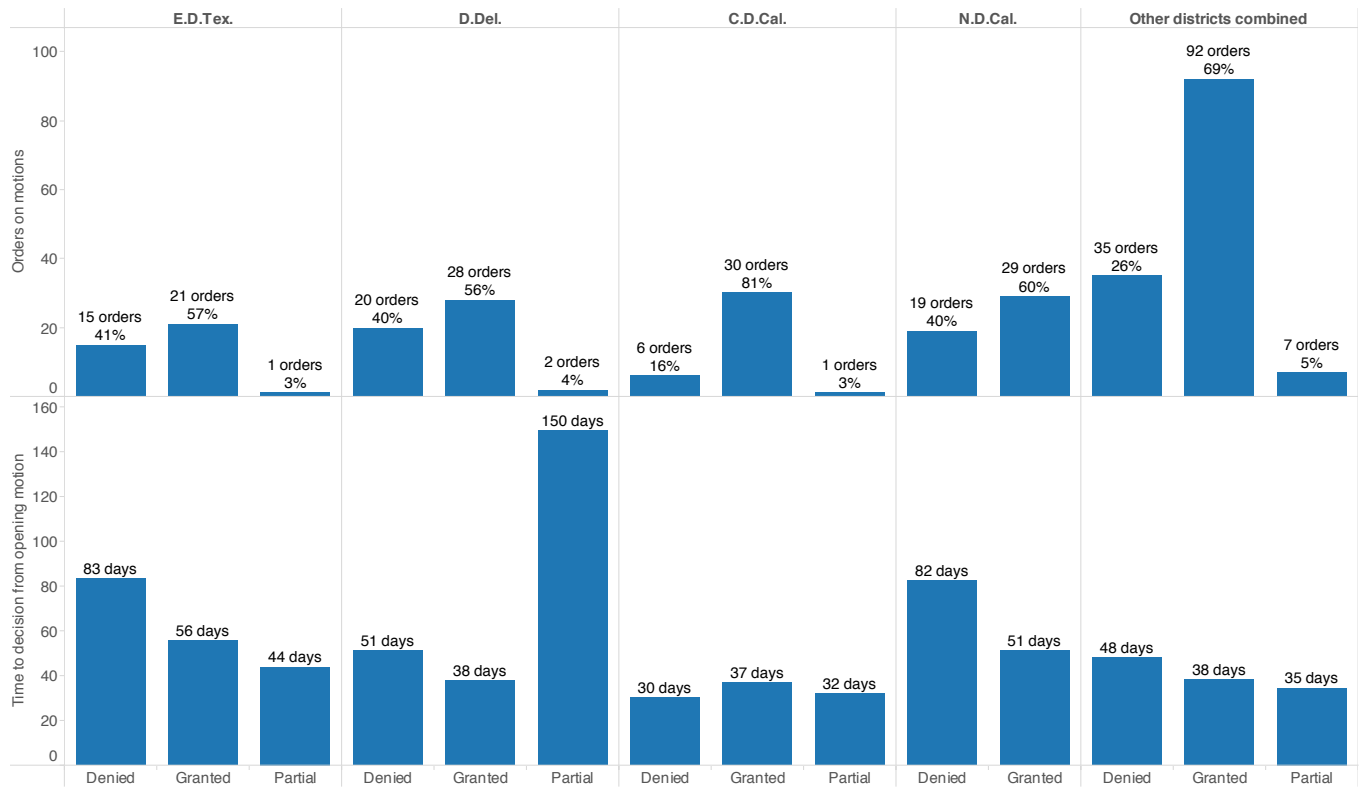


Figure 21: For top districts, timing and success of motions to stay pending PTAB decided 2015-2016



Lex Machina's platform allows users to track and analyze other types of motions, including motions to dismiss, motions to stay, and summary judgment motions. When considering the expense of filing a motion to stay pending PTAB, companies and litigators should know the likelihood of winning the motion - which turns out to differ depending on the district.

Of motions to stay pending PTAB decided in 2015 and 2016, the Eastern District of Texas, the District of Delaware and the Northern District of California had similar grant rates of 55-60%, while the Central District of California districts denied motions to stay pending PTAB at a higher rate.

Budgeting can also be affected by timing - for example, the Northern District of California is slower to decide than Central District of California.

Design Patent Litigation

Figure 22: Asserted patents, by design (orange) or utility (blue), by quarter, 2007-2016

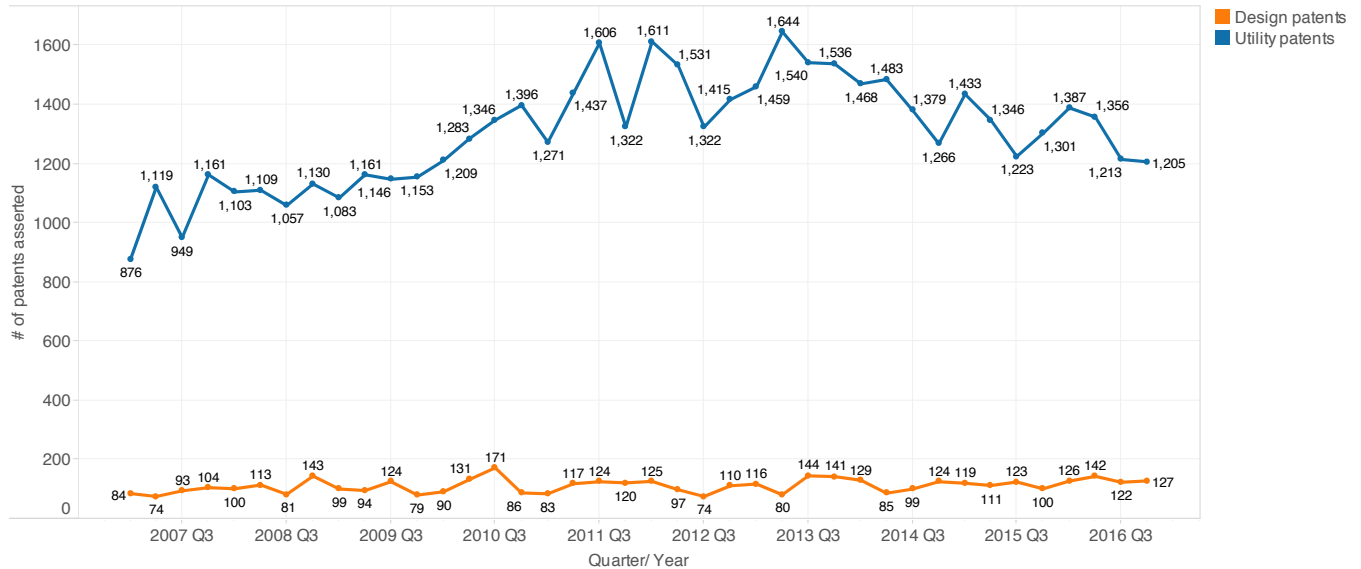
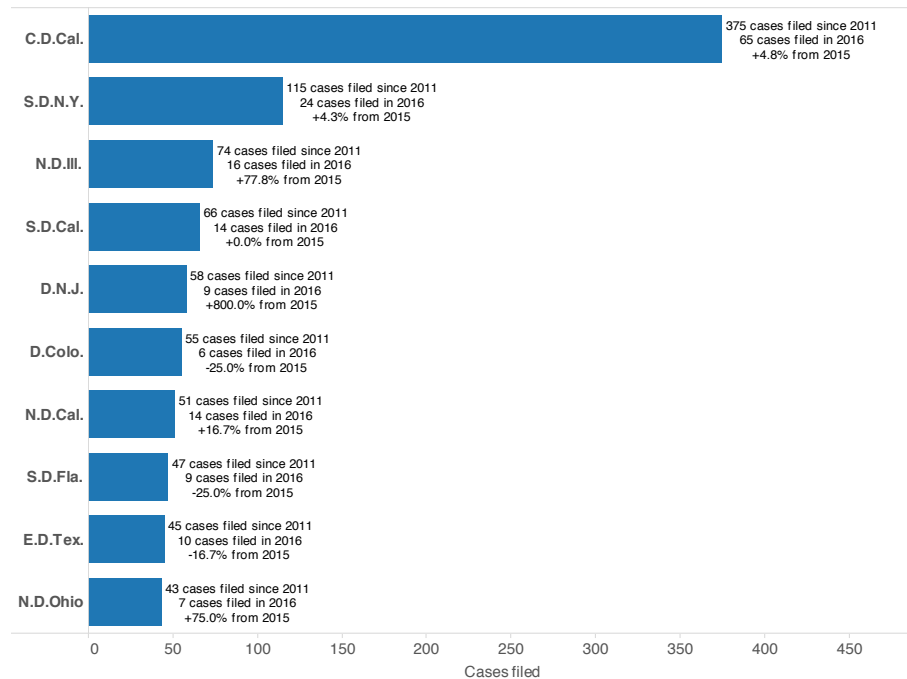


Figure 23: Top districts, by new cases including one or more design patents, 2007-2016 (and showing percentage change from 2015)

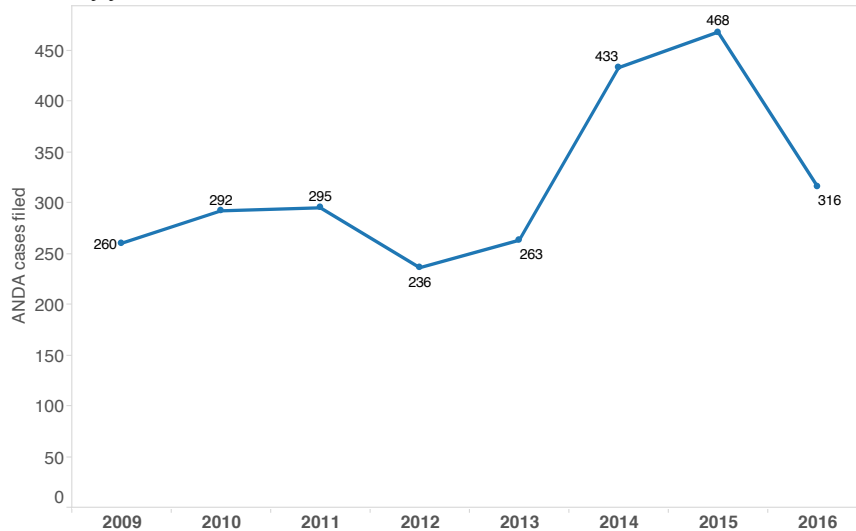


Although comprising a smaller fraction of the litigated patents, design patent litigation is far more consistent than utility patent litigation.

Design patent litigation remains highly concentrated in the Central District of California, and that district saw its total increase 4.8% over 2015. The Southern District of New York, still in a distant second place, saw its share increase by 4.3%.

ANDA Litigation

Figure 24: New ANDA cases, by year, 2007-2016



Lex Machina enables users to track and analyze ANDA litigation. ANDA (Abbreviated New Drug Application) cases are related to the filing of these drug applications at the FDA. The Hatch-Waxman Act provides a streamlined process with specific timelines for litigation triggered by the application process.

ANDA cases rose sharply in 2014 into 2015, but have declined in 2016 to a level more commensurate with 2010-2011. ANDA litigation is heavily concentrated in the Districts of New Jersey and Delaware, each of which has had significantly more cases filed than the all districts below the top ten.

Lex Machina will be releasing our third Hatch-Waxman Report in later this spring - make sure to get a copy for updated data and more analysis!

Figure 25: New ANDA cases, by month, 2013-2016

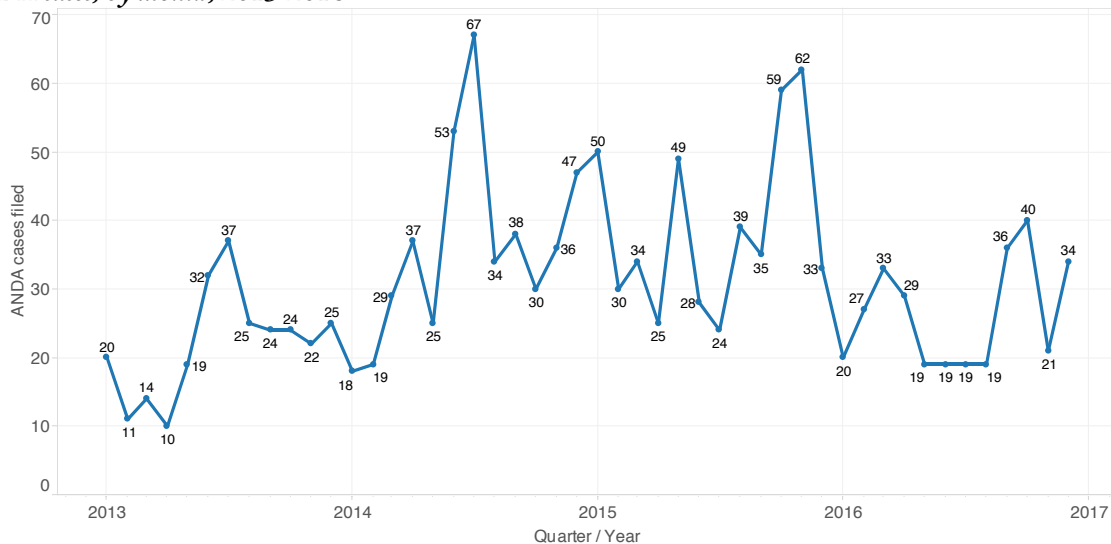


Figure 26: Top districts, by new ANDA cases filed, 2009-2016

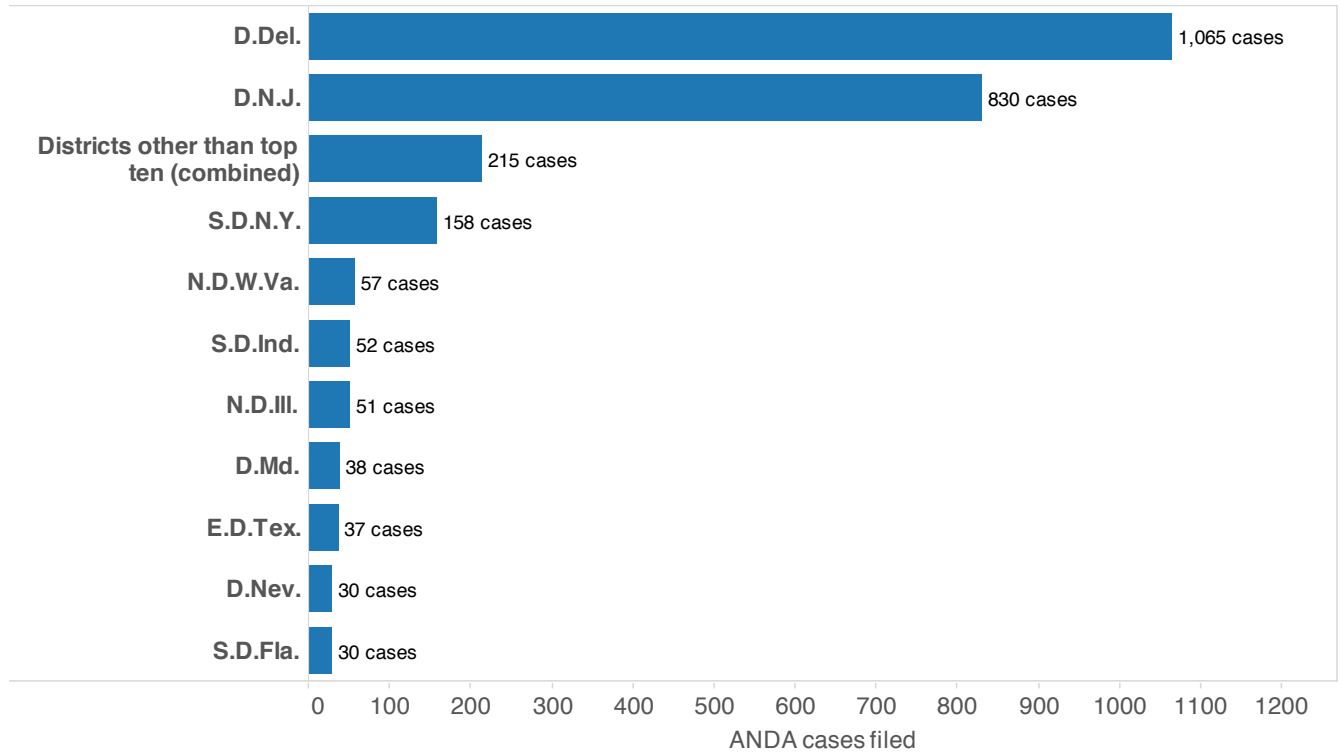
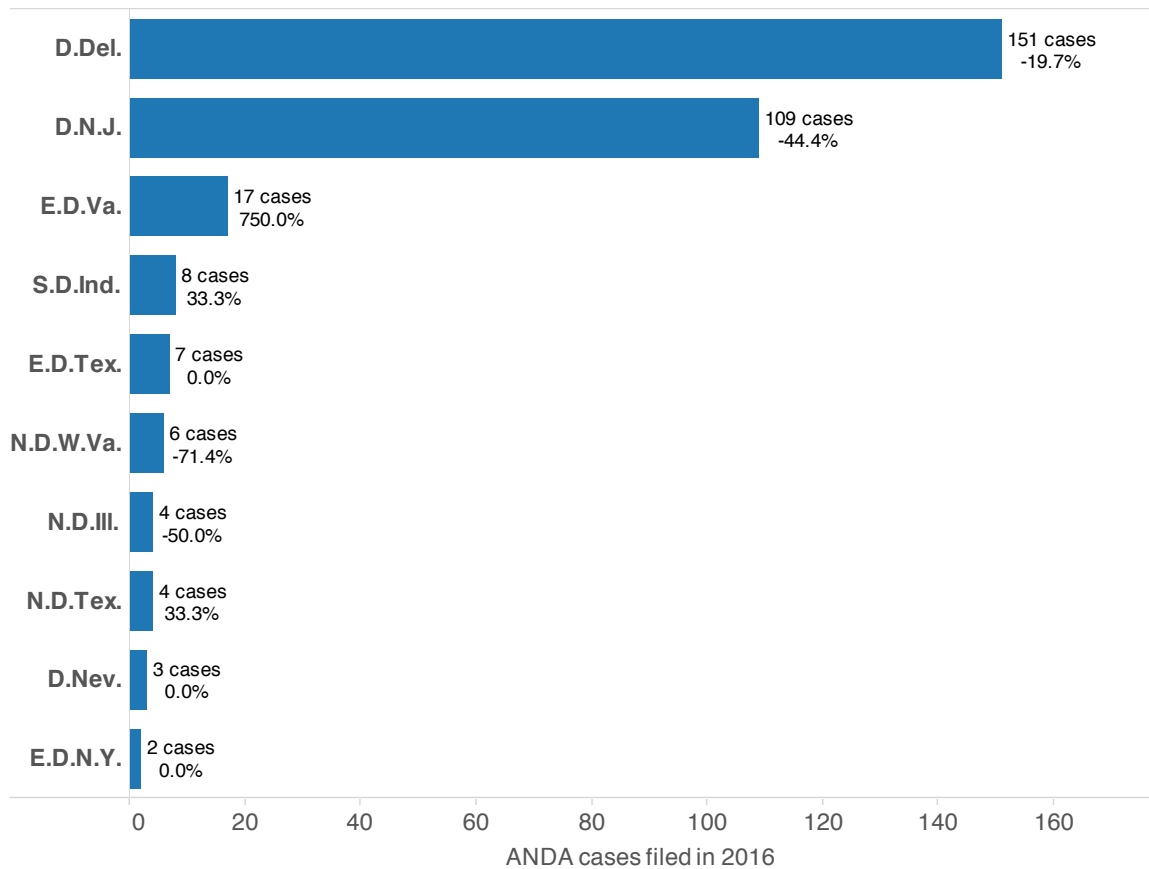


Figure 27: Top districts, by new ANDA cases filed in 2016 (and percentage change from 2015)



Judges

The top judges reflect the busiest districts: the charts are topped by judges from the Eastern District of Texas and from the District of Delaware.

Judge Gilstrap of E.D.Tex. has an astounding 1,119 cases assigned to him in 2016 - the fourth year in a row that he has had the most patent cases of any judge. Judge Gilstrap's large caseload comes in part from him being assigned a large percentage of cases filed in the court's Marshall Division.

Judge Gilstrap's large number of cases also put him at the top of the charts for most cases with findings and summary judgments. However, Judge Andrews of the District of Delaware is second on both lists.

* See, e.g., Eastern District of Texas, General Order Assigning Criminal and Civil Actions (No. 16-7, July 15, 2016) assigning Judge Gilstrap 95% of civil litigation (including patents) filed in the Marshall Division, all Marshall Division Criminal cases, as well as an additional 20% of Texarkana civil cases (including patent) AND 30% of the patent cases filed in the Tyler division. See, e.g. http://www.txed.uscourts.gov/cgi-bin/view_document.cgi?document=25551

Figure 28: Top Article III judges, by new cases filed in 2016

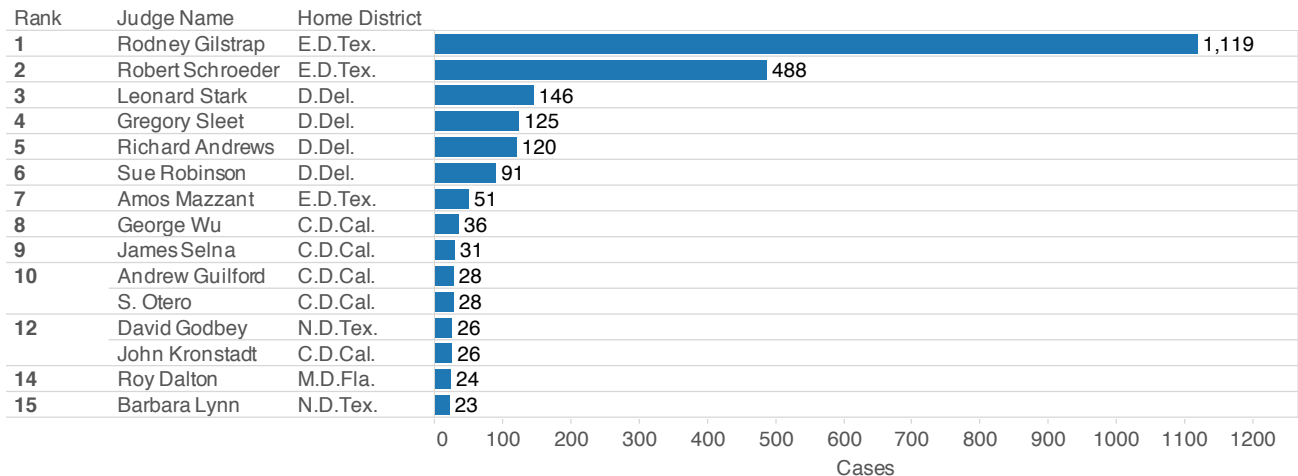


Figure 29: Top magistrate judges, by new cases filed in 2016

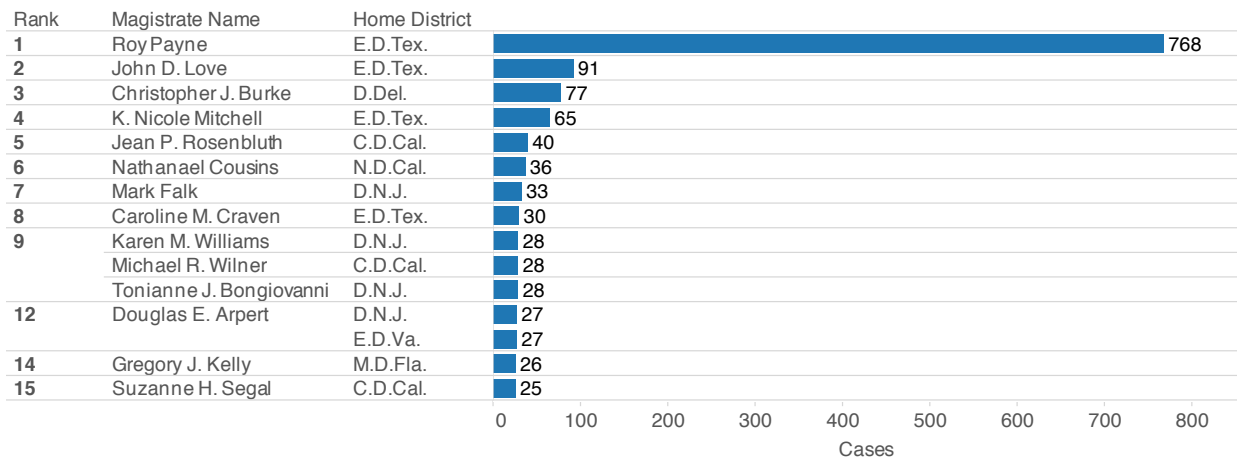


Figure 30: Top judges, by cases reaching decisions on patent infringement, validity, or enforceability in 2016

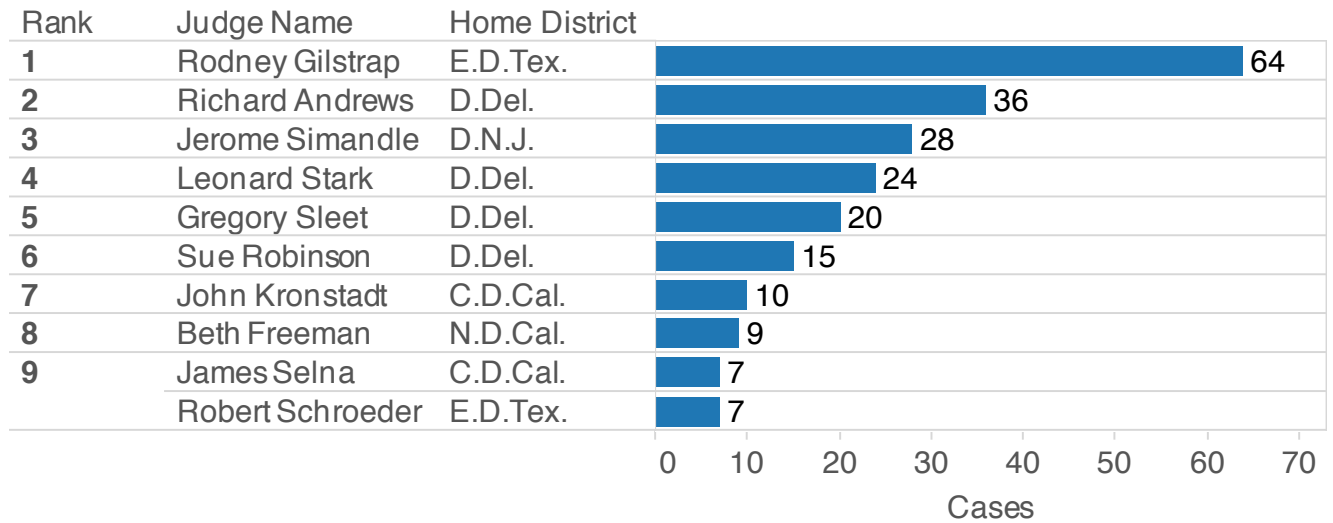
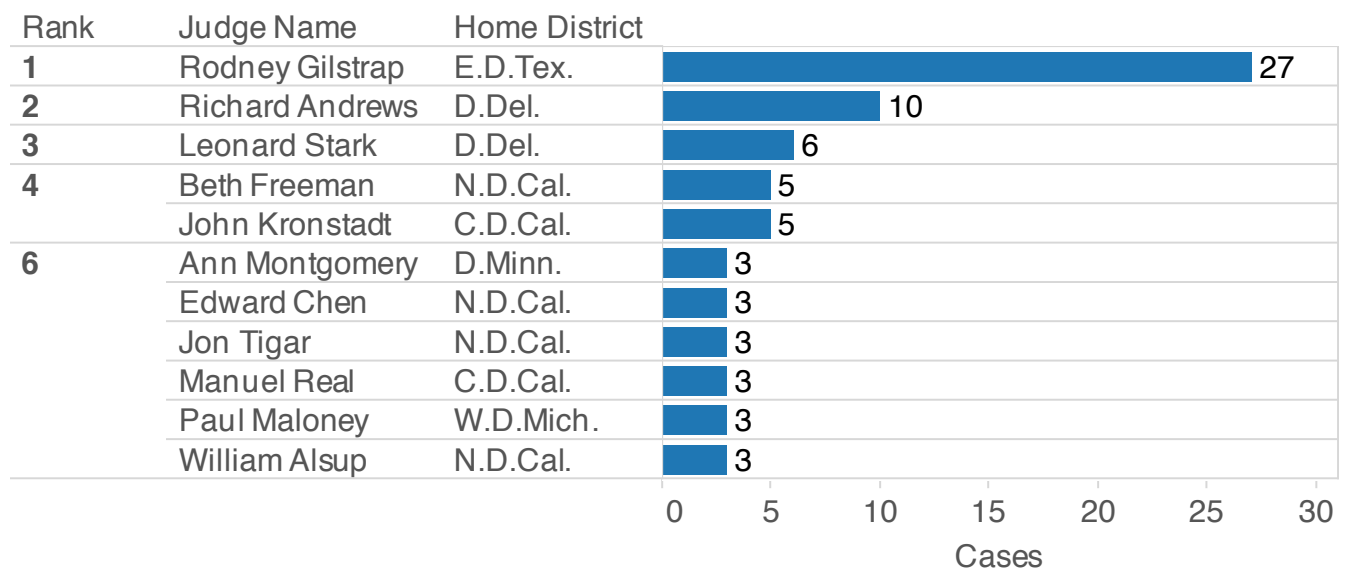


Figure 31: Top judges, by cases having summary judgment on patent infringement, validity, or enforceability (showing judges having 3 or more) in 2016



Parties

The top plaintiffs of 2016 include Shipping and Transit (see next box), Uniloc, and Sportbain Holdings.

The top ten plaintiffs are all patent monetization entities (PMEs),* The only company shown above in the top 15 that is not a PME is Whirlpool Corp, ranked 15th. Prior to 2015, Whirlpool was not a high-volume plaintiff and never filed more than 5 cases in a calendar year. However, in 2015 Whirlpool filed 14 patent cases, followed by 28 in 2016.

Samsung remains the top defendant with 37 patent cases filed against it in 2016. Samsung topped the chart last year in 2015 with 64 cases as well). Apple, the leading defendant in 2013 and 2014, defended fewer cases in 2016 (26 cases) than LG Electronics (28 cases).

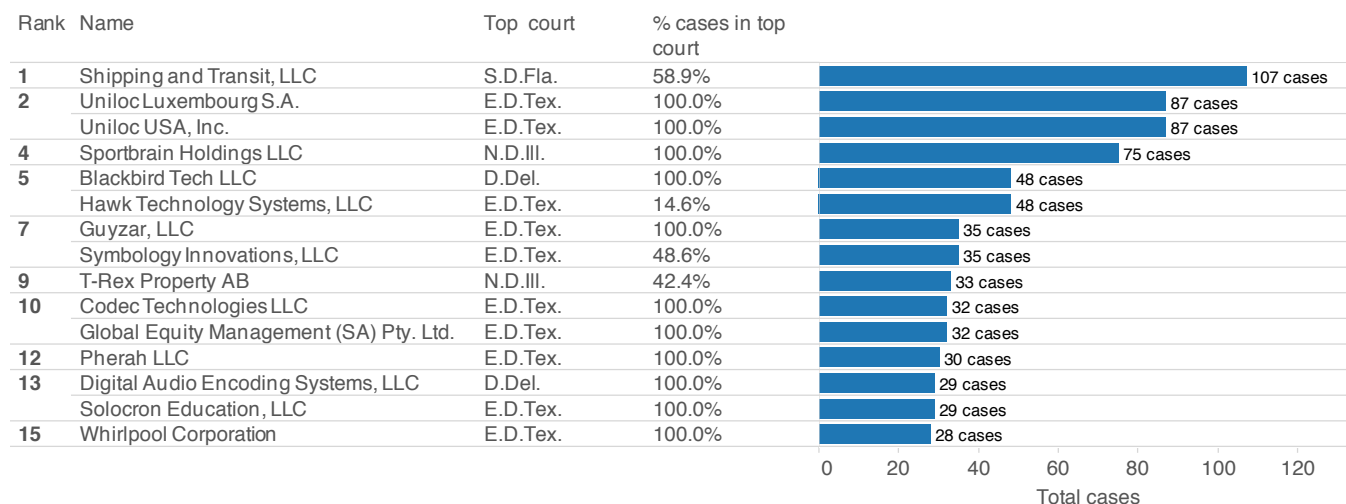
It is worth noting that, even as top defendant in 2016, Samsung has been sued significantly less (37 cases in 2016) than the top defendant of previous years (e.g. 2015, Samsung had 64 cases, 2014 Apple had 58 cases, and in 2013 Apple had 59 cases).

Each party is shown alongside the district in which the majority of their cases appear (the top court) and the percentage of the party's 2016 cases filed in that court.

The majority of both plaintiffs and defendants have the Eastern District of Texas as their top court. The only other court that appears as the top court for the listed defendants is the District of Delaware.

* The top plaintiffs are all considered as “High-volume plaintiffs” by definition, as each brought more than 10 cases within the 365 day span that was 2016.

Figure 32: Top plaintiffs, by new cases in 2016



Note: Top party charts exclude declaratory judgment cases.

Figure 33: Top defendants, by new cases in 2016

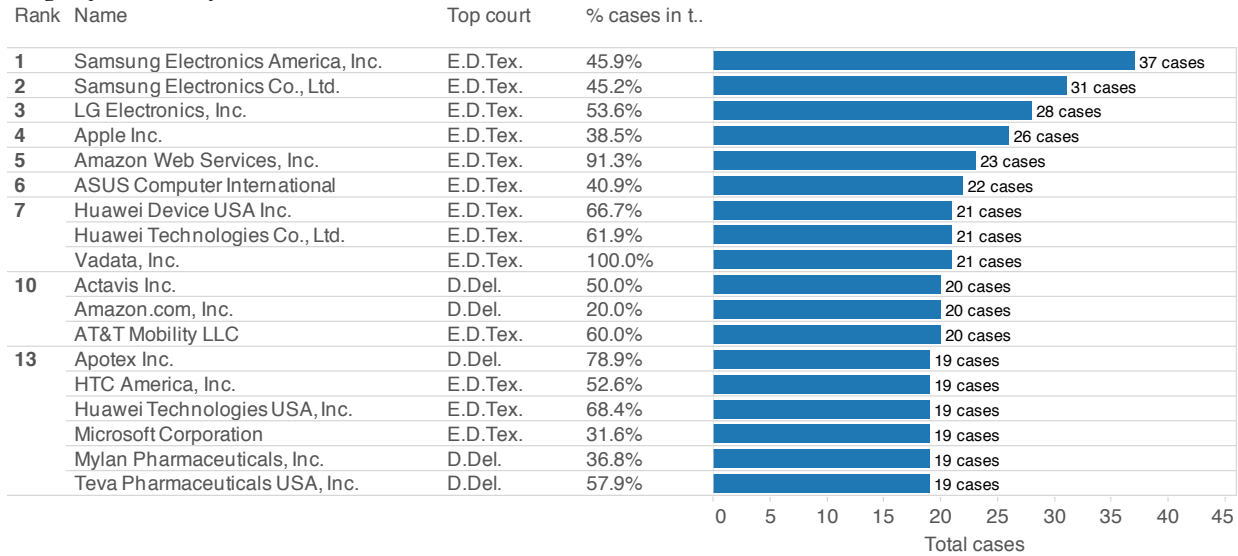
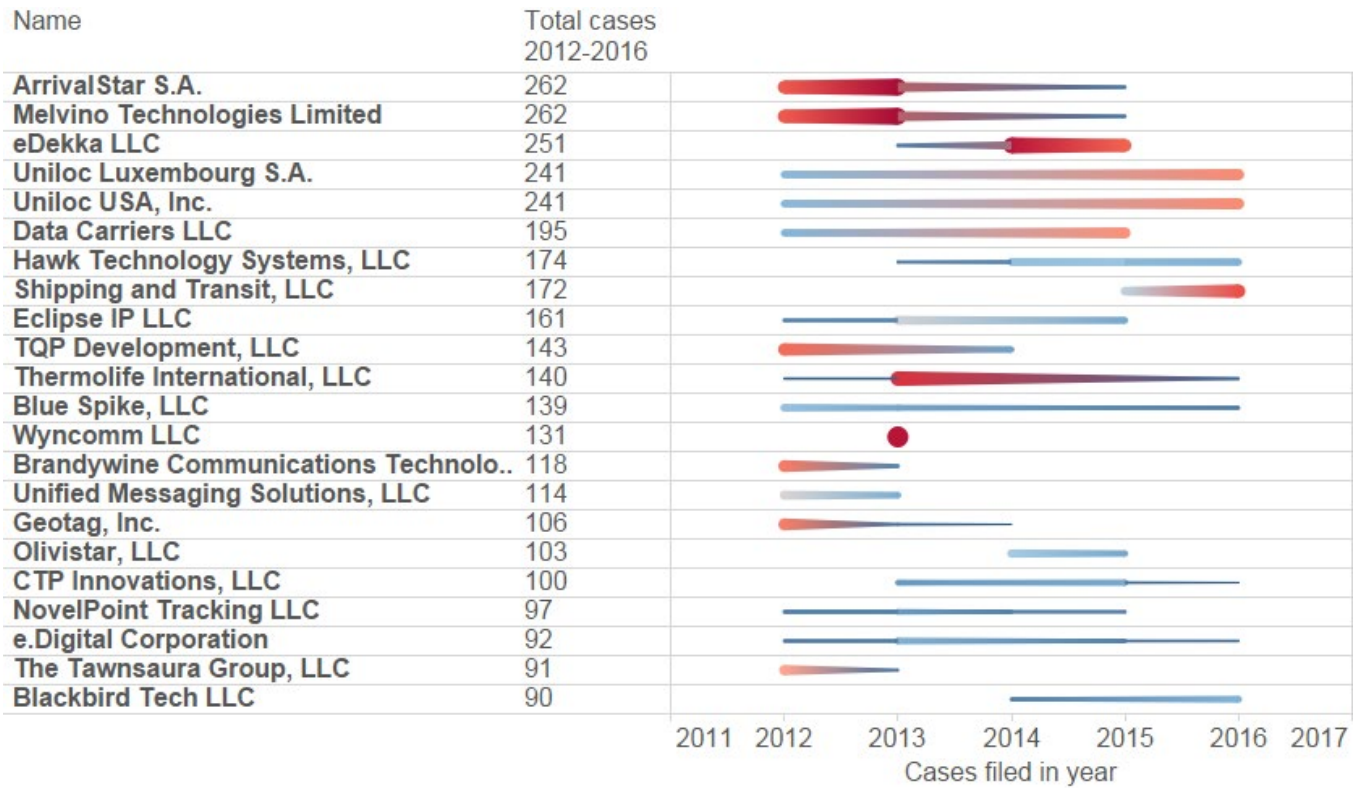


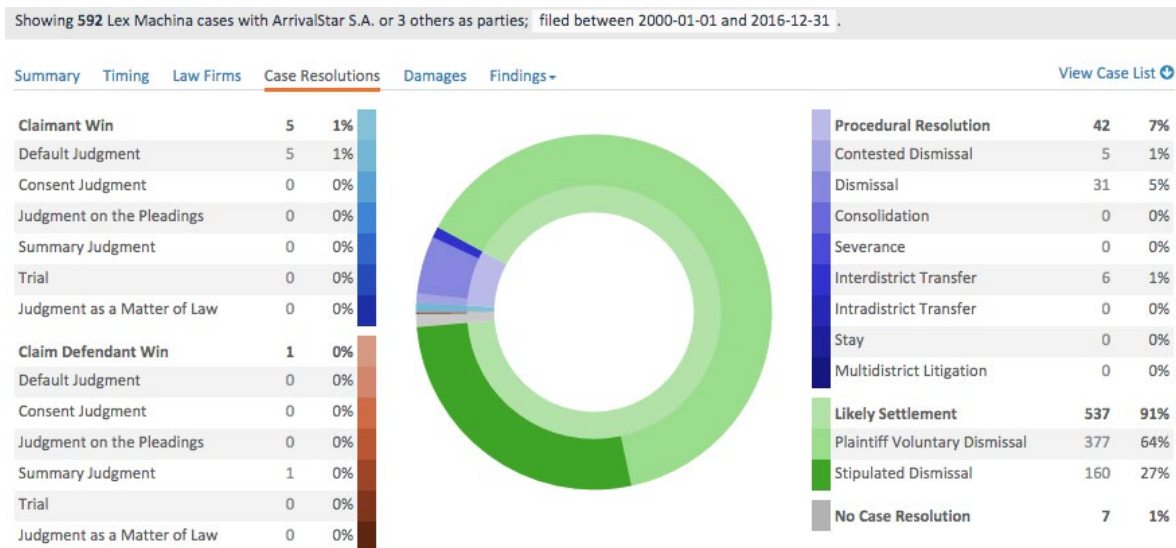
Figure 34: Top high volume plaintiffs by cases filed 2012-2016 (showing distribution of cases by year, with higher concentrations shown in larger red and lower concentrations in thinner blue)



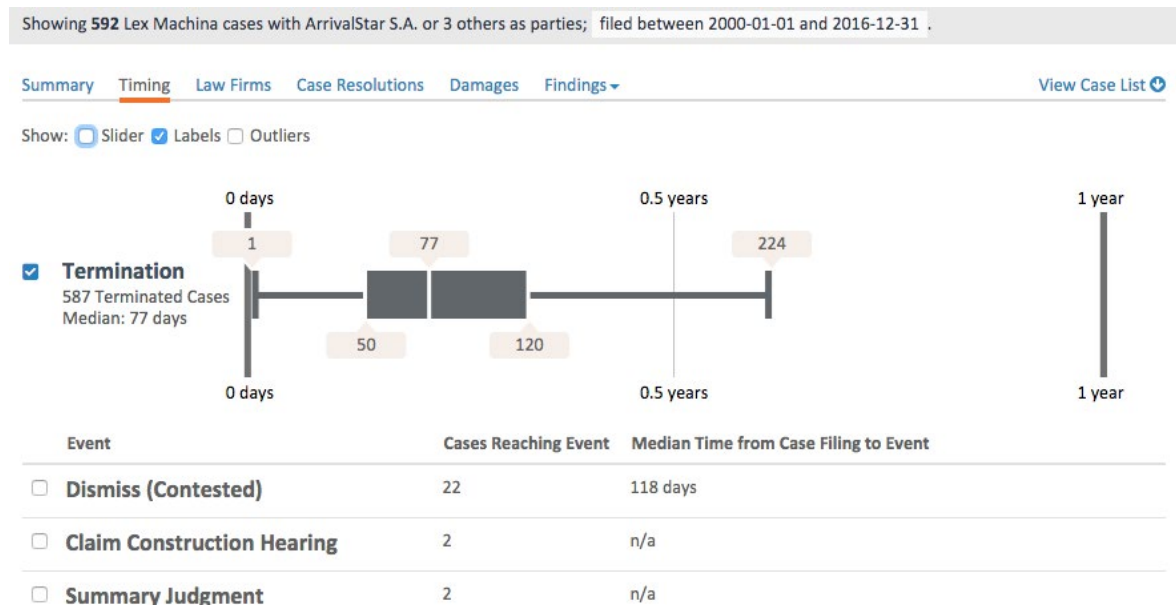
Party Profile: Shipping and Transit / Arrival Star

[Subscribers can explore up-to-date analytics that include cases filed after December 31, 2016 in Lex Machina by clicking here!](#) *

Shipping and Transit previously did business under the name ArrivalStar. The entity has featured as a top plaintiff in previous years (as the top plaintiff of 2013 with 137 cases that year, and ranked fourth in 2015 with 65 cases). In total, the two entities have brought over 500 patent lawsuits to date, but have not prevailed on the merits in any case so far.



The median time to termination for cases brought by Shipping and Transit / ArrivalStar is only 81 days.



* Note: Live analytics may differ slightly from the charts shown here due to Lex Machina's ongoing data quality efforts.

Law Firms

This report considers law firms based primarily in Delaware or Texas separately from large, national (or international) firms and/or boutiques with a national reach (all classified below as “national”).

Worth noting is that the law firm with the most plaintiff-side cases in 2016, Ferraiuoli LLC defies this categorization. Ferraiuoli handled 206 cases in 2016 for plaintiffs, primarily in the Eastern District of Texas, but is headquartered in San Juan, Puerto Rico.

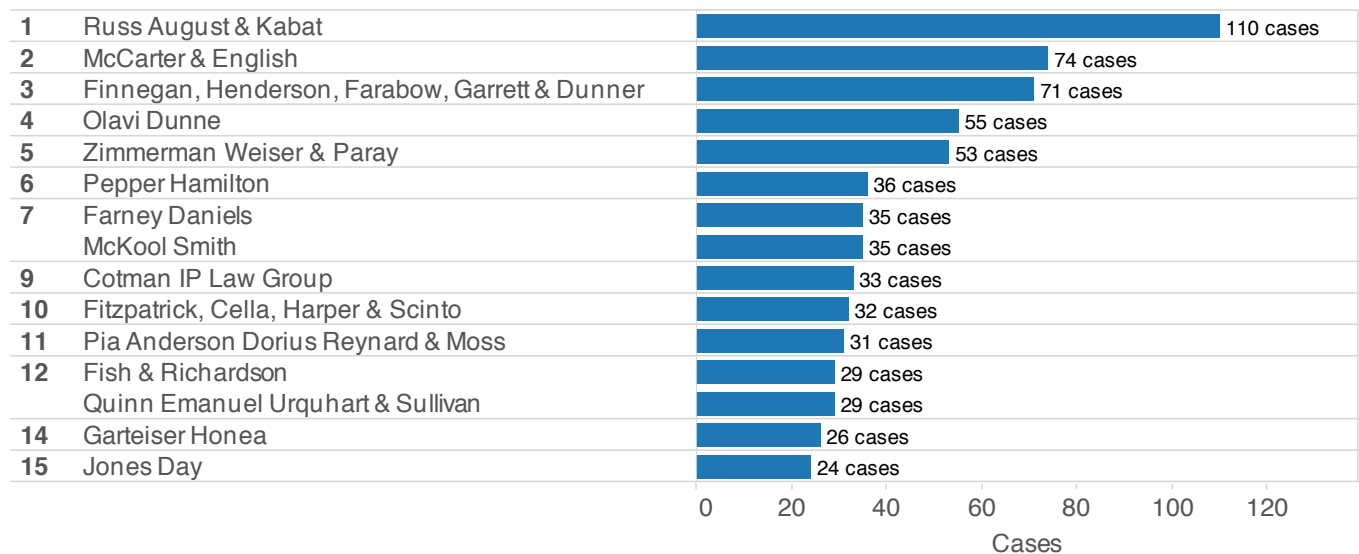
The top national firm of 2016 by plaintiff representation was Russ, August & Kabat with 110 cases (up from fourth in last year’s ranking), followed by McCarter English with 74 cases (last report’s top firm with 121 cases in 2015). In cases filed in 2016, Russ, August & Kabat have represented LPL L Licensing and Phoenix Licensing, each of which filed more than 20 cases that year. McCarter English has represented Uniloc in 2016, along with several pharmaceutical companies (including Astrazeneca, Horizon Pharma, and Novartis).

The top national firm of 2016 by defendant representation is Fish & Richardson with 160 cases – more than double the next leading firm (Winston & Strawn, 63 cases). Also among the top firms are Perkins Coie (61 cases), and Alston & Bird (51 cases). Fish & Richardson’s clients include Huawei, Apple, Nvidia, Citrix, and LG.

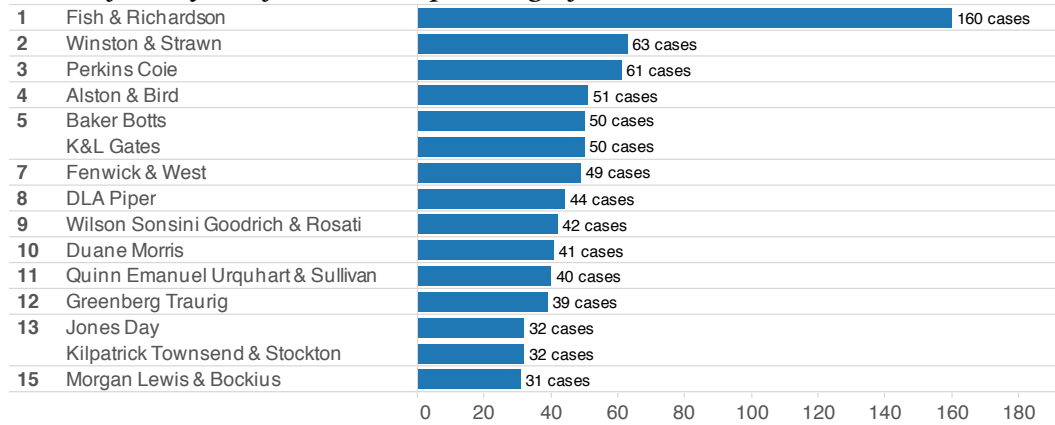
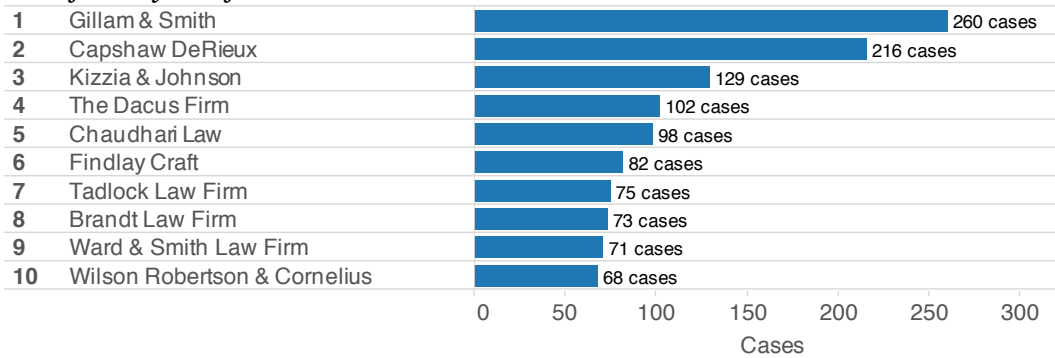
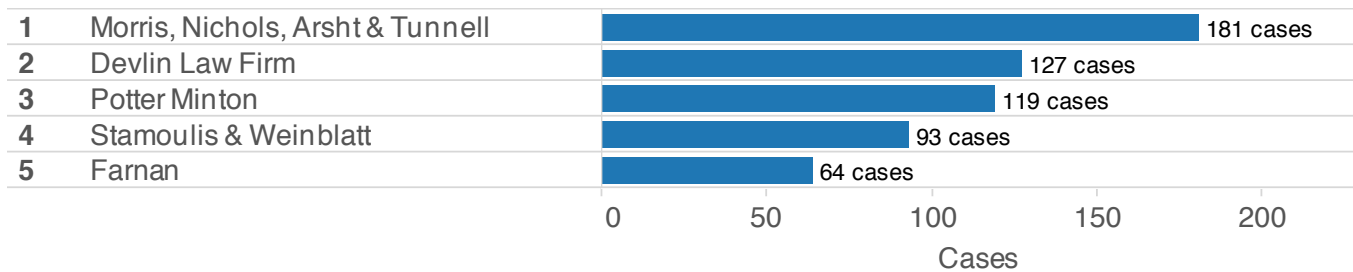
Among Texas firms, Gilliam & Smith leads with 260 cases in 2016. Capshaw DeRieux with 216 cases and Kizzia & Johnson with 129 cases follow. Although headquartered in Los Angeles (and therefore not included in the chart below), the firm of Hipskind & Berger has had 85 cases in 2016 representing plaintiffs in Texas - enough to rank them 5th.

Among Delaware firms, Morris, Nichols, Arsht & Tunnell tops the list with 181 cases in 2016 (as it did last year with 251 cases in 2015). The Devlin law firm had 127 cases in 2016 for second rank, and Potter Minton 119 cases for third.

Figure 35: National law firms, by cases filed in 2016 representing plaintiffs



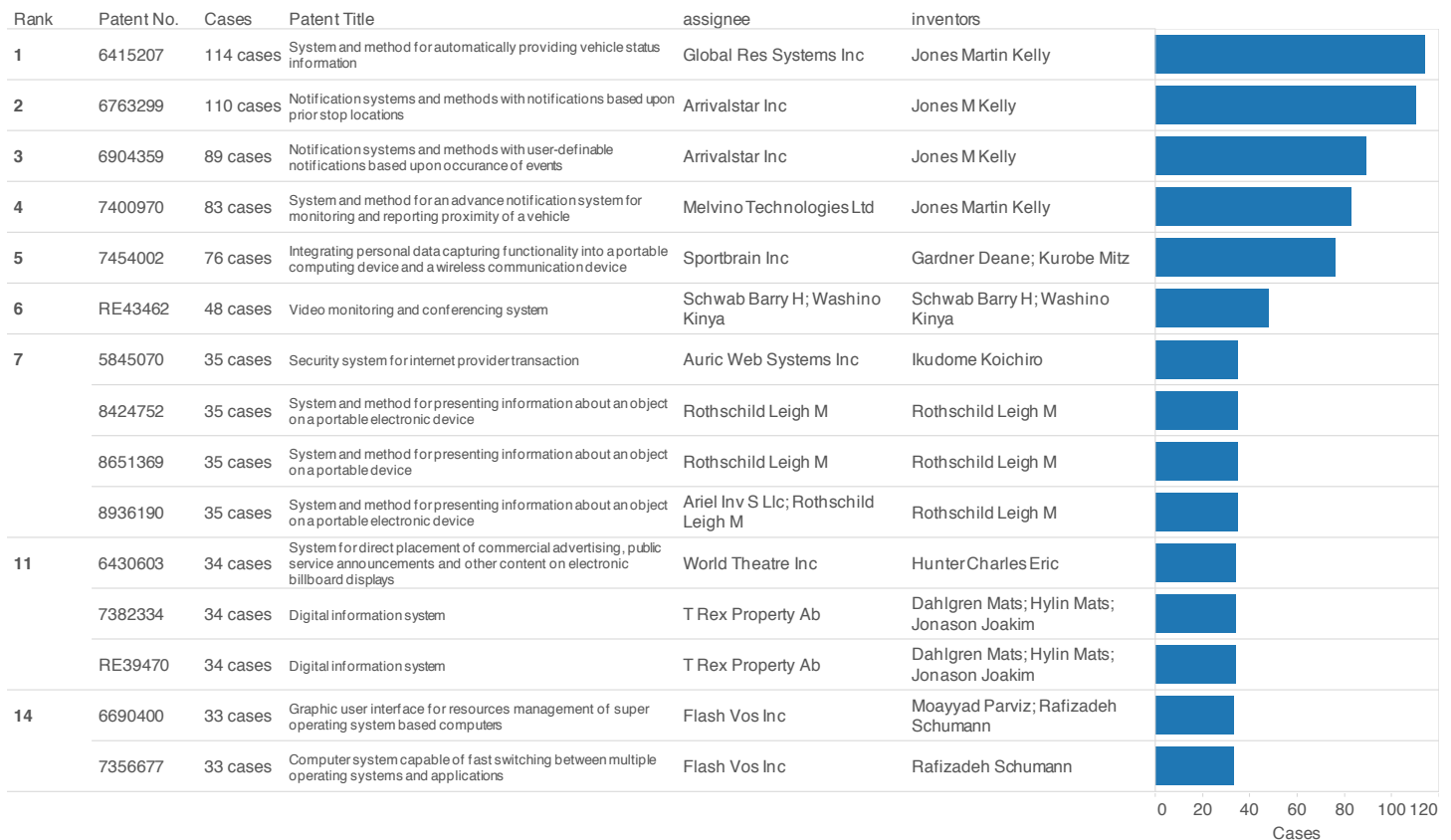
Note: Excludes declaratory judgment cases.

Figure 36: National law firms, by cases filed in 2016 representing defendants*Figure 37: Texas law firms, by cases filed in 2016**Figure 38: Delaware law firms, by cases filed in 2016*

Note: Totals for Delaware and Texas firms represent cases overall and are not limited to those districts.

Patents and Patent Findings

Figure 39: Most frequently asserted patents in 2016



Lex Machina's platform recognizes patent findings (any determination on the validity, infringement, and/or unenforceability of a patent). These findings reveal useful relationships between the type of finding and the procedural method used to reach the finding.

For example, findings of infringement tend to come from either trial or from consent or default judgment, while findings of non-infringement or invalidity are more likely to have come from summary judgment.

On June 19, 2014, the Supreme Court decided *Alice v. CLS Bank*, a case interpreting how 35 U.S.C § 101, the statute governing patentable subject matter, applies to computer-implemented inventions. In the wake of the decision, invalidations under § 101 have rose to record levels. Invalidations under § 101 swung wildly by quarter in 2015, but have steadily declined in 2016.

Note: Excludes declaratory judgment cases.

Figure 40: Patent judgment types by finding, for findings in 2016

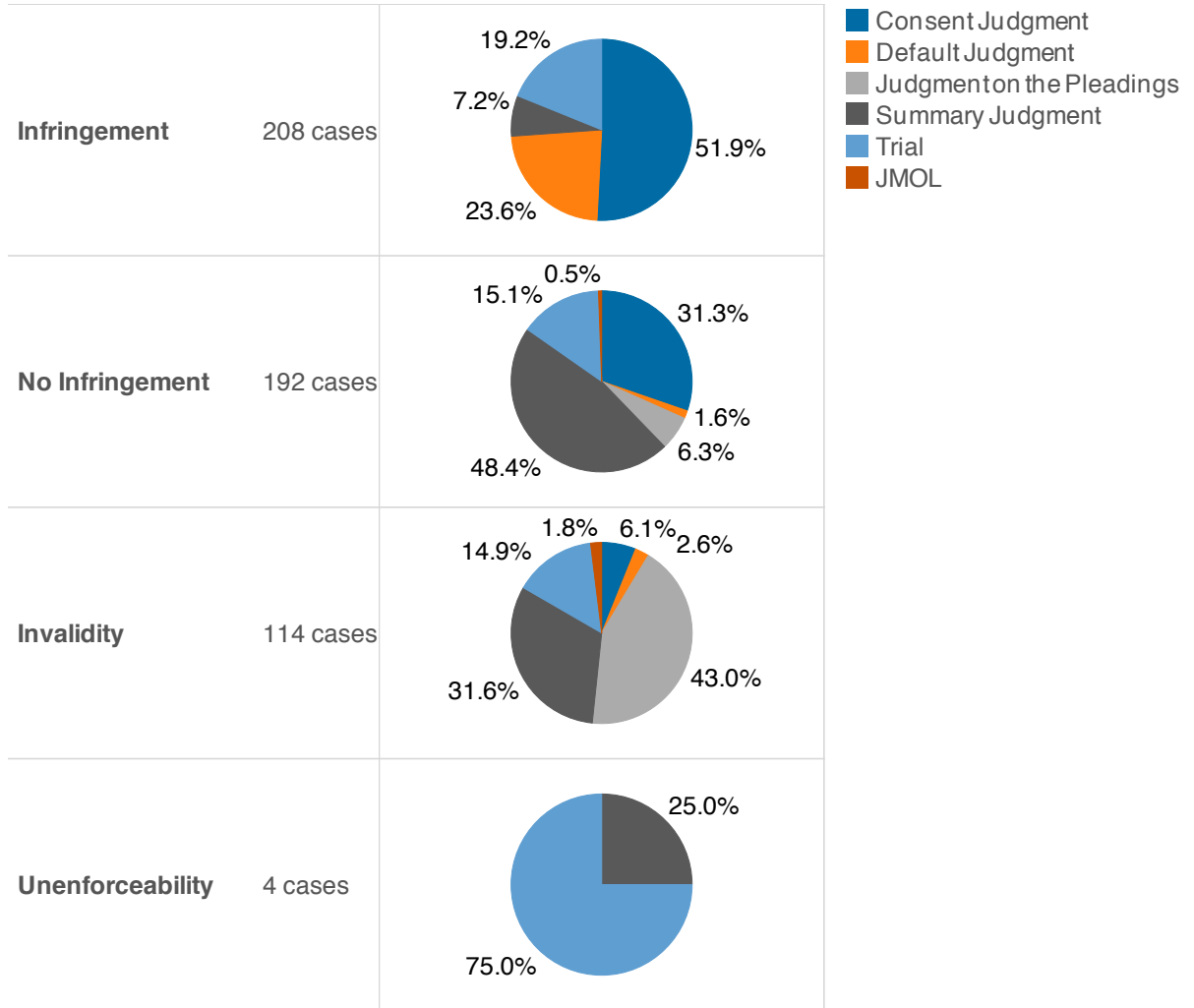


Figure 41: Patent findings by judgment types, for findings in 2016

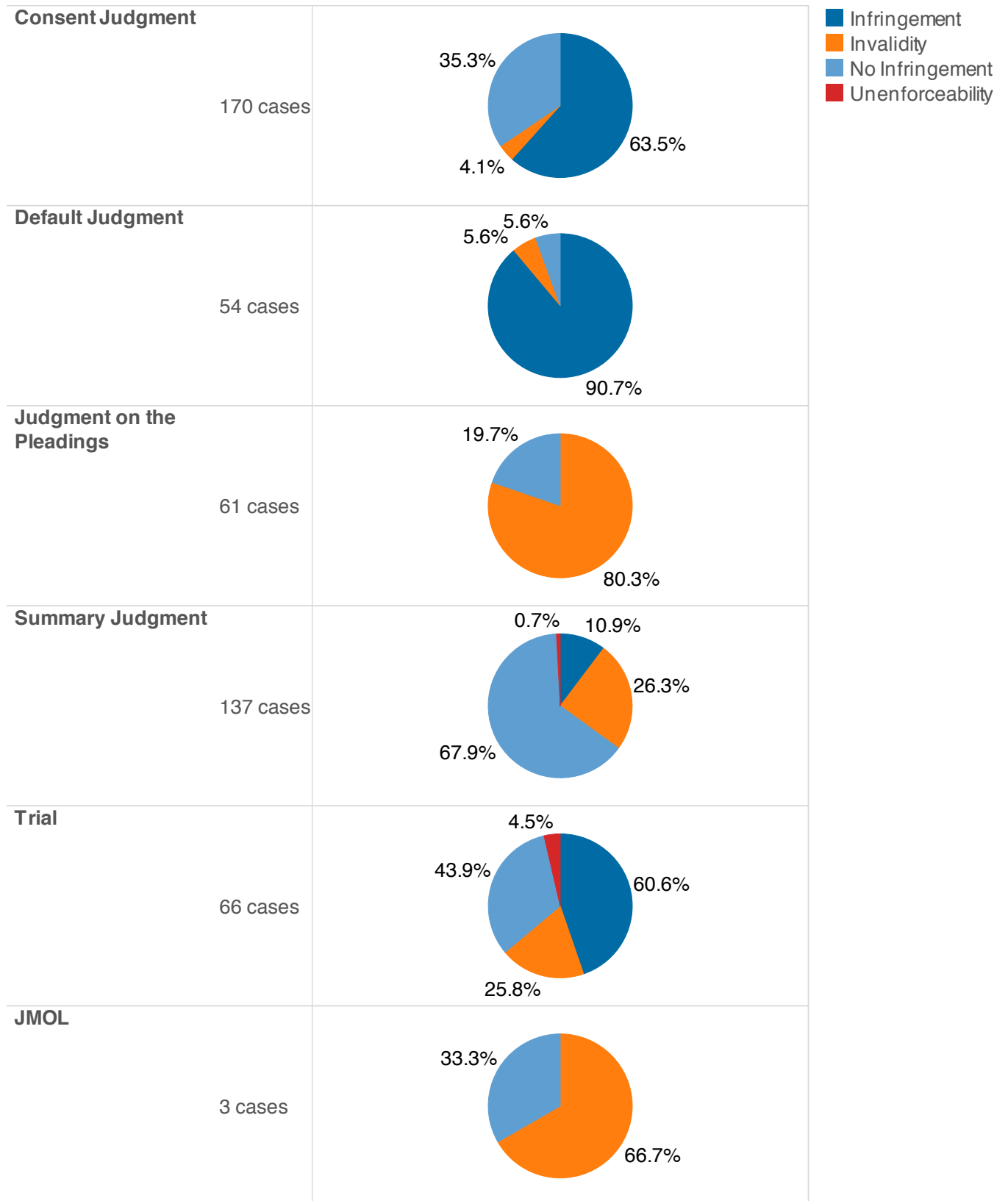


Figure 42: Patents invalidated, 2013-2016, under 35 U.S.C. § 101 for lack of patentable subject matter, by quarter

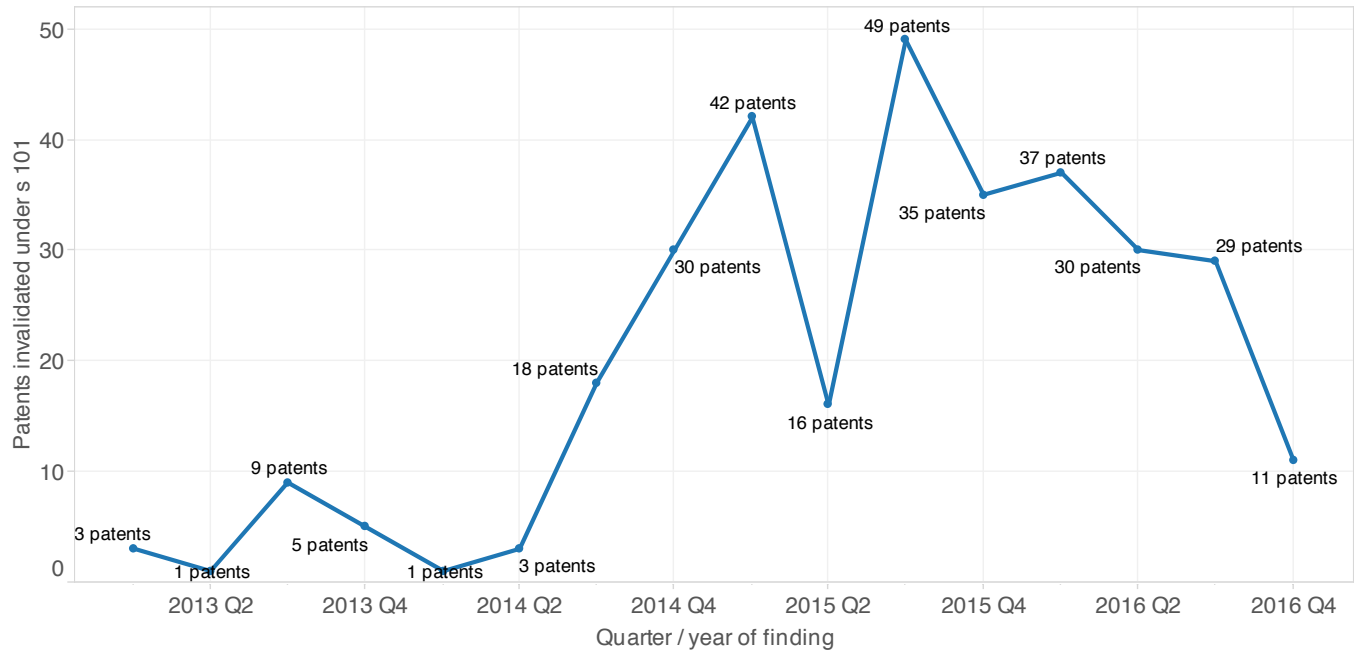


Figure 43: Patents invalidated, 2013-2016, by basis

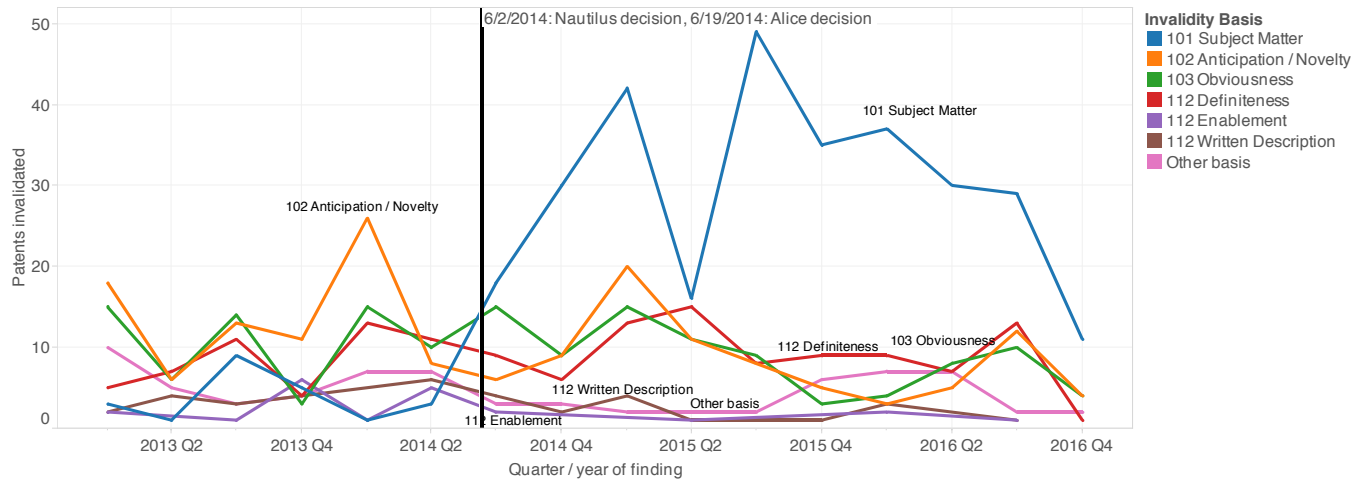
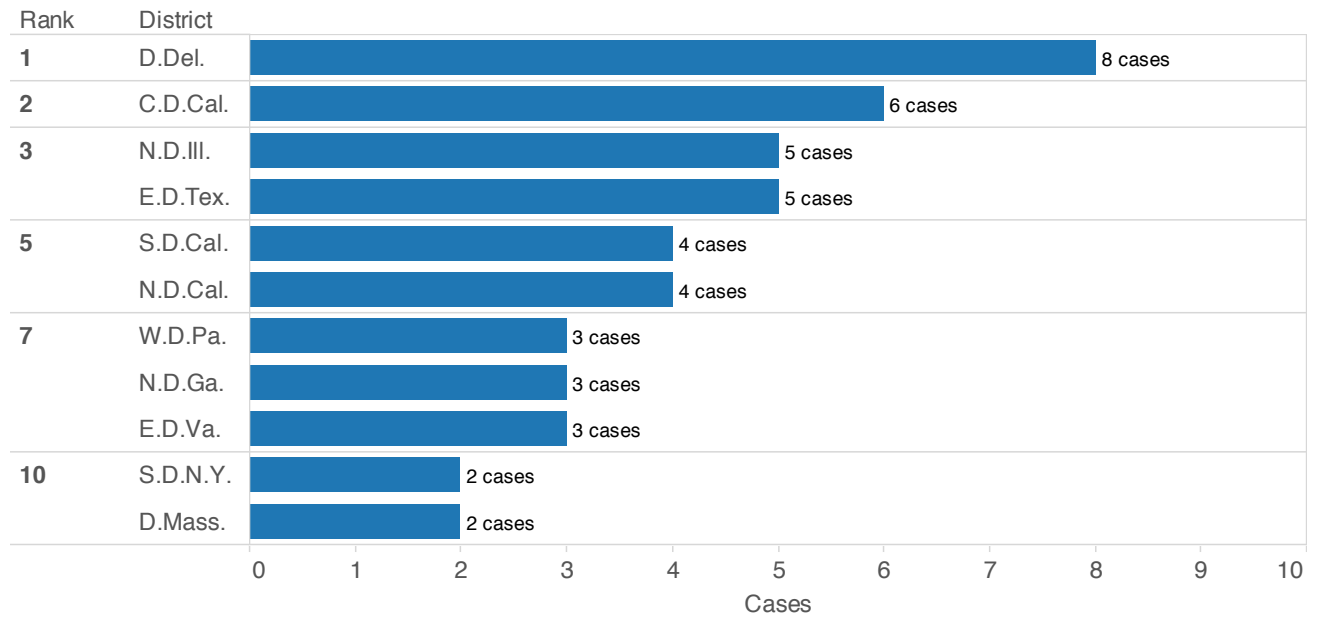


Figure 44: Top Districts by cases with patents invalidated under 35 U.S.C. § 101 for lack of patentable subject matter (cases filed 2012-2016 with invalidity finding in 2016)



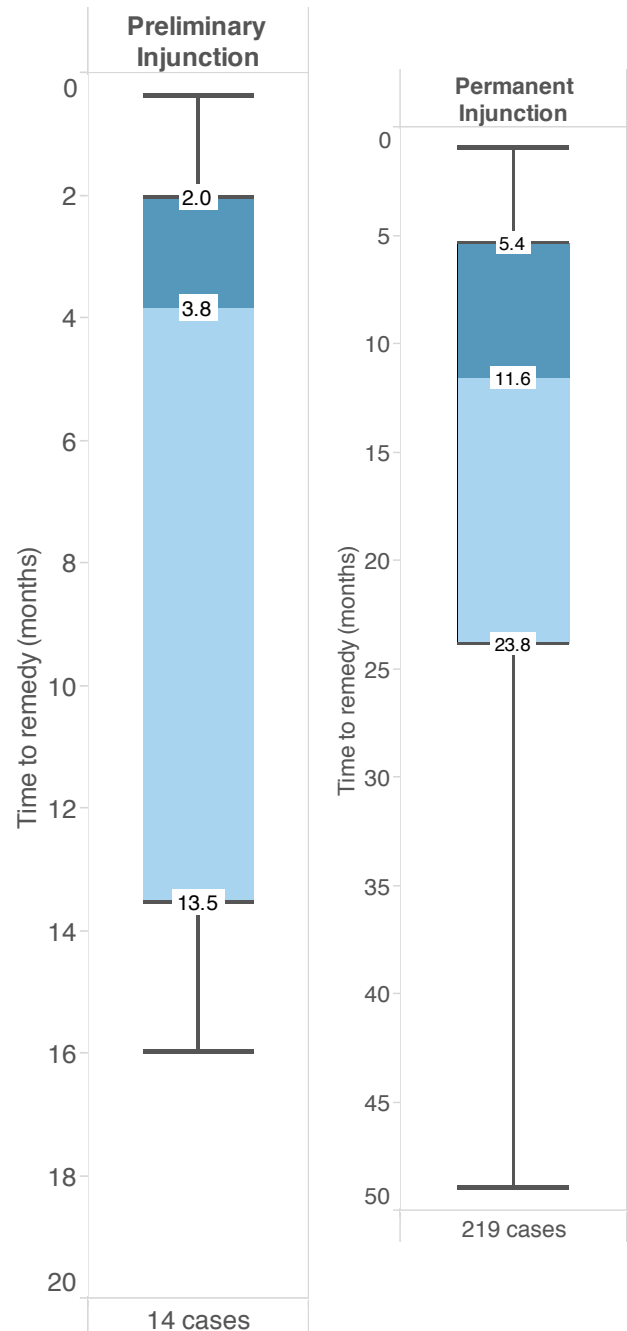
Remedy Timing and Case Resolutions

Understanding timing data is one of the best uses of Legal Analytics - knowing if and when an injunction will be decided makes for better decision-making: clients can know when their bills will change, lawyers can plan their schedules with greater confidence, and budgets can accurately account for the costs.

These charts show the median time to an event (the middle number between the shaded boxes). The median represents the middle value, where as many took longer than the median as took shorter than the median, and serves as a simple and useful average. The median time for a preliminary injunction is 3.8 months, and for permanent injunction is 11.6 months.

Where the median lies in relation to the edges of the boxes also provides useful data. For example in looking at the preliminary injunction chart, the median of 3.8 months lies much closer to the top of the box (2 months) than the bottom (13.5) months. This means that timing favors an earlier issuance: the fastest half of injunctions are issued in less than 4 months while the next quarter of injunctions are spread out over 10 months, and the final quarter over even more time.

Figure 45: Case reaching injunction, in cases terminating 2012-2016



Lex Machina generates a resolution for each case, reflecting how the case terminated.

The majority - 74.6% - of patent cases terminating between 2009 and 2016 settled. Of those that did not, the largest block (15.3% of terminated cases) reach a procedural outcome, such as transfer or consolidation. Wins by the claimant (6.1%) are more common than wins for the claim defendant (4.0%).

Looking at cases terminating in 2016 alone, the settlement rate increased to 76.7%, mainly at the expense of claimant and claim defendant wins (5.5% and 4.0% respectively).

Figure 46: Case resolutions, in cases terminating 2009-2016

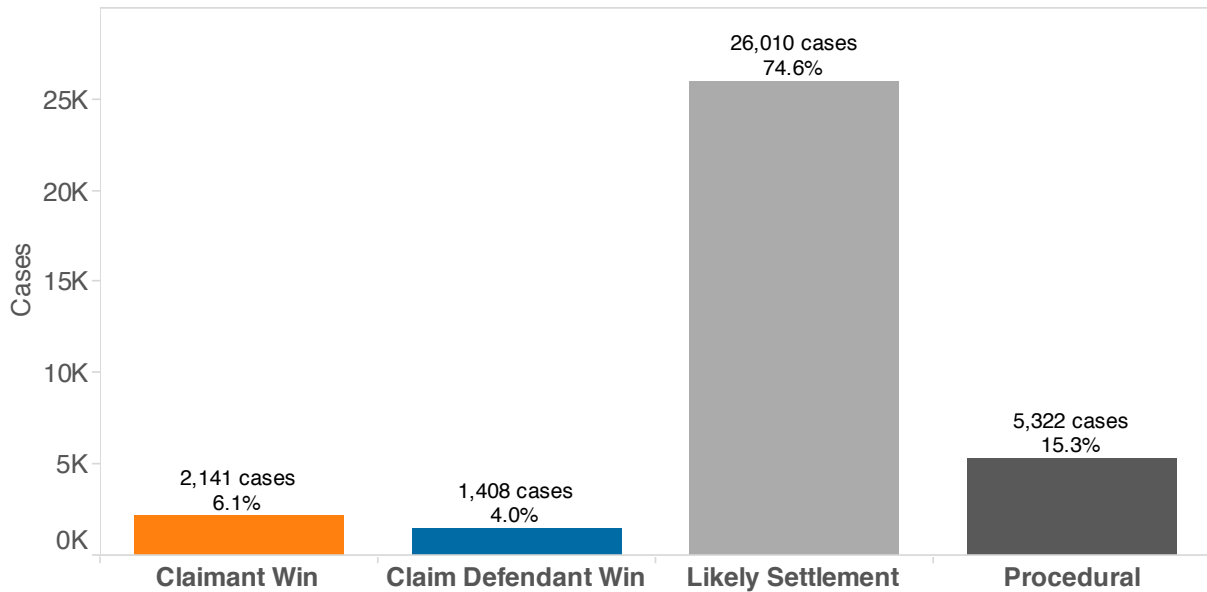
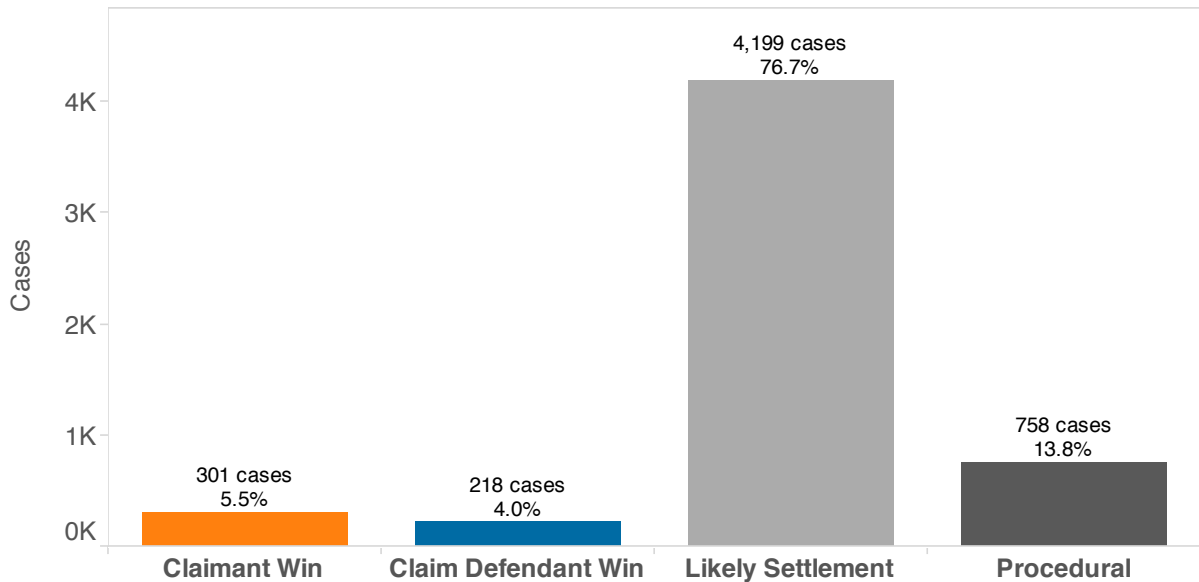


Figure 47: Case resolutions, in cases terminating in 2016



Damages

Compensatory damages continue to be awarded in few cases, around 1.8 % of the terminated cases filed since the year 2000. 2015 saw the award of approximately \$750m total in compensatory damages.

Players in the patent litigation space should be armed with knowledge of how asymmetric patent awards can be. Most individual awards are small, with a few outliers driving the high totals. Among all damages awarded in cases filed since the year 2000, 90% of the total compensatory awards in cases have been less than \$9.6m, 75% less than \$1.7m, and half less than approximately \$170,000. Of damages granted since 2000, juries have granted about seven times more than judges (\$15 billion versus \$1.9 billion).

Understanding the propensity of districts to dispense damages directly impacts litigation exposure, as the amount of damages awarded varies disproportionately across districts. Relative to the number of cases filed in each jurisdiction, the Eastern District of Texas and the Southern District of California were the most generous while the Middle District of Florida and the Eastern District of Michigan were least generous. Looking at median compensatory award per case by district, Delaware, Eastern Virginia, and Eastern Texas are the most generous, followed by a steep drop-off.

Figure 48: Cases, 2000-2016, with damages

Cases terminated since 2000	54,429	
Cases terminated since 2000 on the merits	6,167	11.3% of terminated cases
Cases terminated since 2000 on the merits with compensatory damages	959	1.8% of terminated cases

Figure 49: Total damages awarded during 2016 in cases filed 2000-2016, by type

Compensatory damages:		
Reasonable royalties	\$3,399,970,608.18	
Lost profits	\$28,505,075.30	
Other / Mixed damage types	\$63,396,330.03	
Total damages*		\$3,491,872,013.51

* Total does not include costs, attorneys fees, or pre/post-judgment interest.

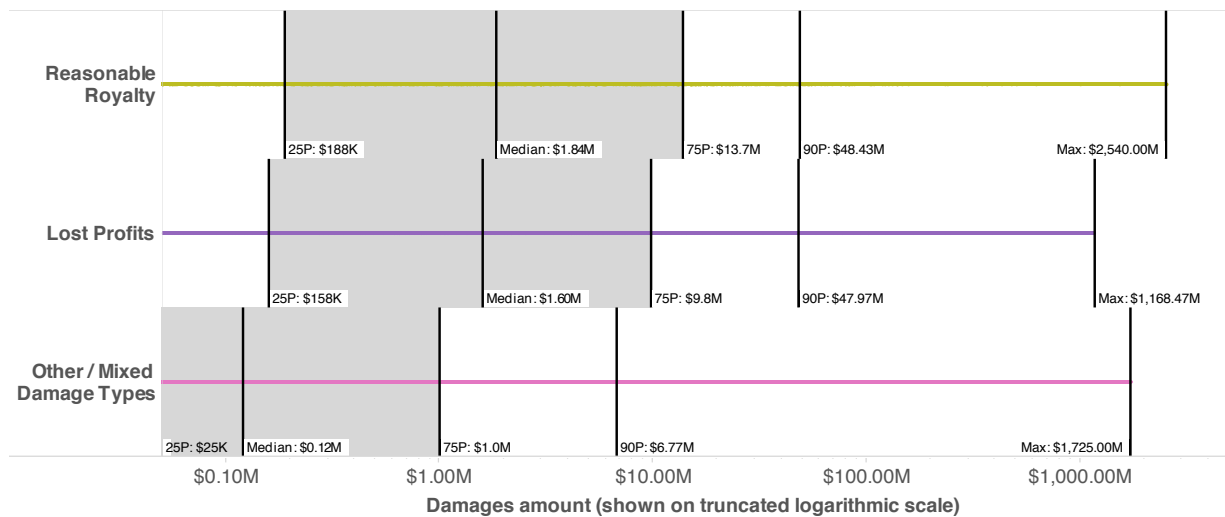
Note: Some cases may include multiple causes of action, for example, both patent and trademark claims. When damages in these cases are awarded and the apportionment between claim types cannot be determined, Lex Machina classifies them as “Other / Mixed Damage Types.” These charts exclude damages explicitly based on non-patent claims and theories (e.g. trademark damages based on infringers profits), even awarded in a case with patent claims.

Live analytics may differ slightly from the charts shown here due to Lex Machina’s ongoing data quality efforts.

Figure 50: Median damages, 2000-2016, by year and type

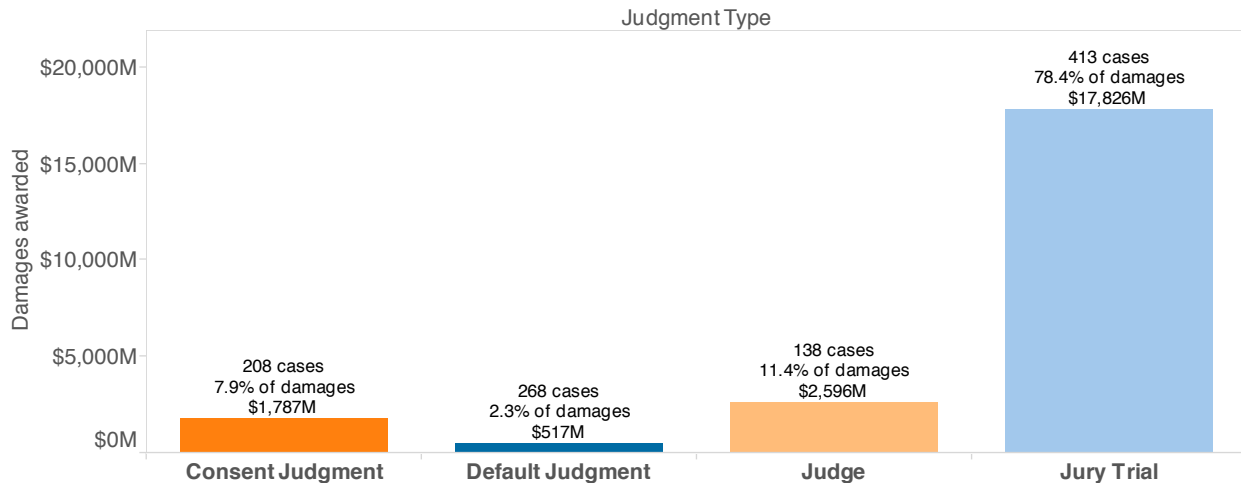
Year	Reasonable Royalty	Lost Profits	Other / Mixed Damage Types	Attorneys' Fees	Costs
2000	\$129,840 3 cases	\$2,100,000 1 cases	\$5,000 20 cases	\$9,765 5 cases	\$373 4 cases
2001	\$292,722 7 cases	\$14,328 3 cases	\$26,043 16 cases	\$39,588 14 cases	\$9,486 9 cases
2002	\$697,793 10 cases	\$69,798 7 cases	\$51,937 36 cases	\$9,643 25 cases	\$10,717 42 cases
2003	\$450,647 24 cases	\$150,010 8 cases	\$74,352 31 cases	\$140,631 30 cases	\$17,632 35 cases
2004	\$1,443,686 23 cases	\$1,349,472 11 cases	\$118,076 36 cases	\$190,000 29 cases	\$17,298 50 cases
2005	\$1,738,557 24 cases	\$450,000 13 cases	\$224,117 28 cases	\$39,182 29 cases	\$19,211 55 cases
2006	\$1,201,791 21 cases	\$2,344,512 8 cases	\$250,000 33 cases	\$37,369 28 cases	\$9,344 69 cases
2007	\$973,360 35 cases	\$613,338 11 cases	\$210,000 31 cases	\$221,708 30 cases	\$28,743 86 cases
2008	\$2,743,800 42 cases	\$1,817,603 17 cases	\$130,000 30 cases	\$50,796 34 cases	\$21,009 82 cases
2009	\$3,714,818 36 cases	\$3,261,077 12 cases	\$174,312 26 cases	\$94,688 38 cases	\$21,947 65 cases
2010	\$2,172,617 31 cases	\$19,942,123 13 cases	\$127,000 31 cases	\$47,033 30 cases	\$11,344 72 cases
2011	\$1,579,997 36 cases	\$6,836,959 16 cases	\$177,402 25 cases	\$88,629 34 cases	\$18,756 80 cases
2012	\$1,975,916 41 cases	\$1,560,273 15 cases	\$150,500 16 cases	\$96,240 27 cases	\$32,028 85 cases
2013	\$311,379 29 cases	\$5,000,000 4 cases	\$484,360 22 cases	\$118,321 22 cases	\$34,270 92 cases
2014	\$4,800,000 29 cases	\$1,324,318 11 cases	\$1,800,000 17 cases	\$77,563 33 cases	\$15,974 100 cases
2015	\$6,459,331 28 cases	\$2,541,333 7 cases	\$360,000 13 cases	\$220,287 33 cases	\$24,442 83 cases
2016	\$3,522,600 36 cases	\$1,631,231 8 cases	\$67,785 18 cases	\$57,659 26 cases	\$20,532 77 cases

Figure 51: Damages percentiles, 2000-2016, by type



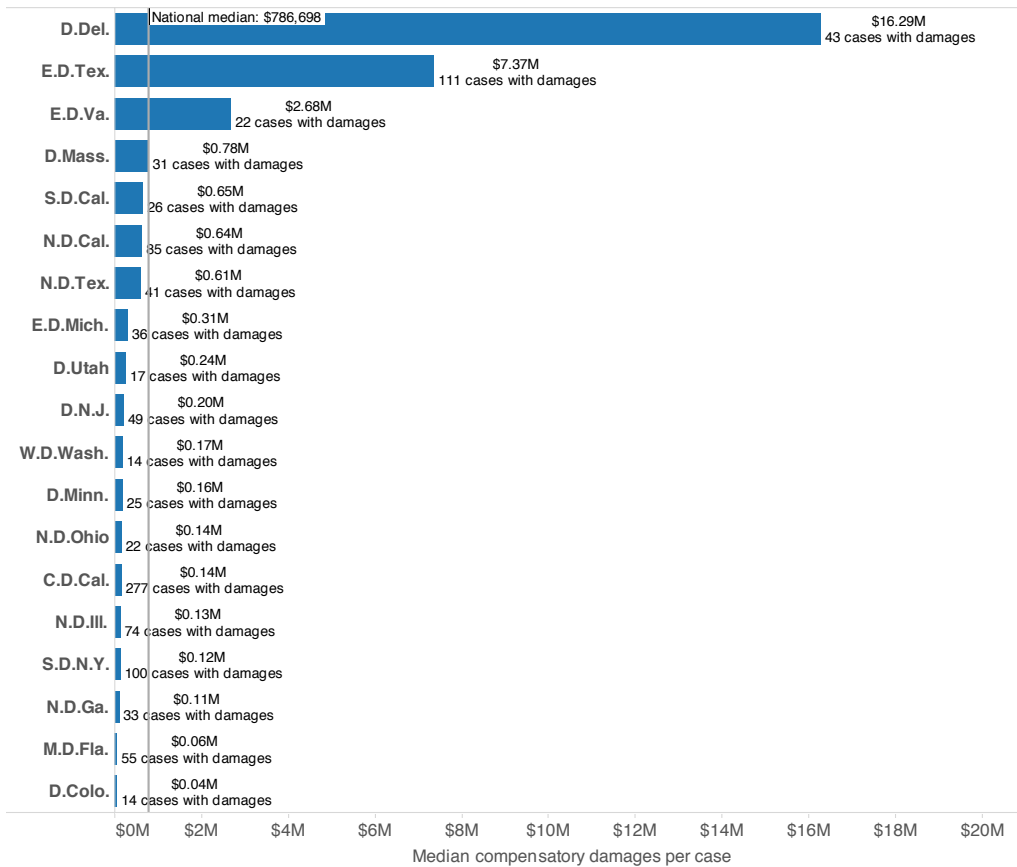
Note: In cases where multiple damages awards were made in separate years, the total sum is reflected under the most recent year.

Figure 52: Damages by judgment type, awarded 2000-2016



Note: Includes costs, and attorneys' fees.

Figure 53: Median damages, 2000-2016, by year and type



Note: In cases where multiple damages awards were made in separate years, the total sum is reflected under the most recent year.

PTAB

The PTAB (Patent Trial and Appeal Board), was created by the America Invents Act and began hearing petitions for Covered Business Method reviews (CBMs) and Inter Partes Reviews (IPRs) on September 16, 2012, the first day the procedure was available.

IPR activity declined slightly in 2015 but remains much more similar to 2014 than previous years. Lex Machina’s trial flow diagram provides insight into how the PTAB is disposing of petitions. Showing the flow of cases from the filing of a petition all the way through final written decision (but also including settlement and procedural outcomes) allows practitioners to easily understand the likelihood of each result.

See Lex Machina’s upcoming PTAB report for a deeper analysis of PTAB in 2016.

Figure 54: IPR and CBM petitions filed, 2012-2016, by month

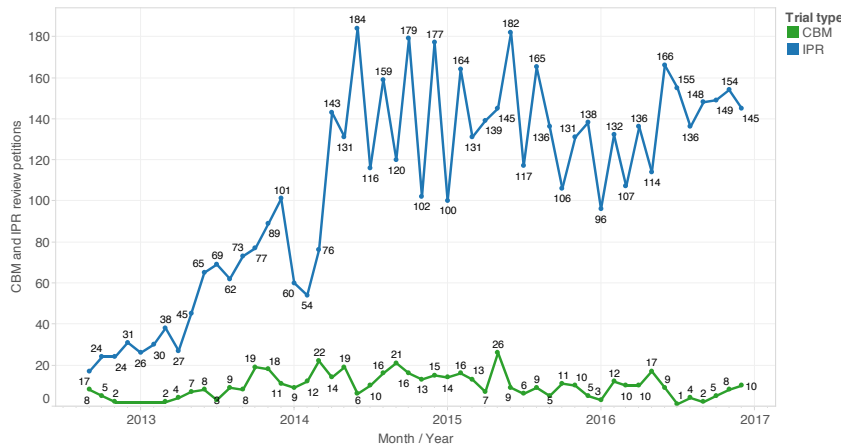
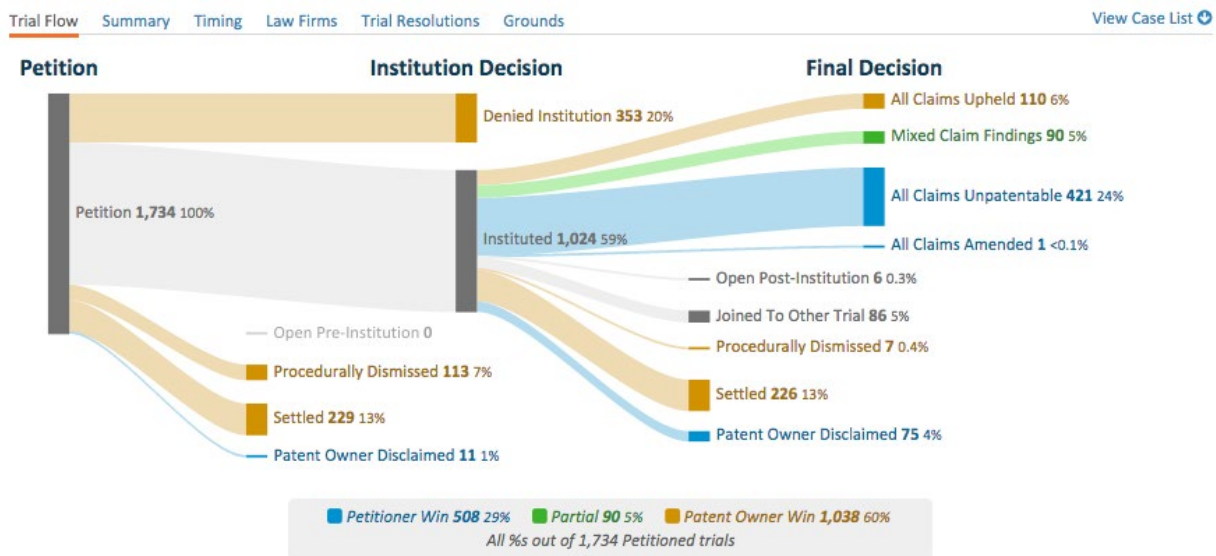


Figure 55: Trial Flow, PTAB IPR petitions, filed 2012 - 2016 and terminated in 2016



Understanding Trial Flow Analytics

Subscribers can [click here](#) to explore further, but note that live analytics may differ slightly from the charts shown here due to Lex Machina’s ongoing data quality efforts.

ITC

Figure 56: ITC investigations filed, 2007-2015

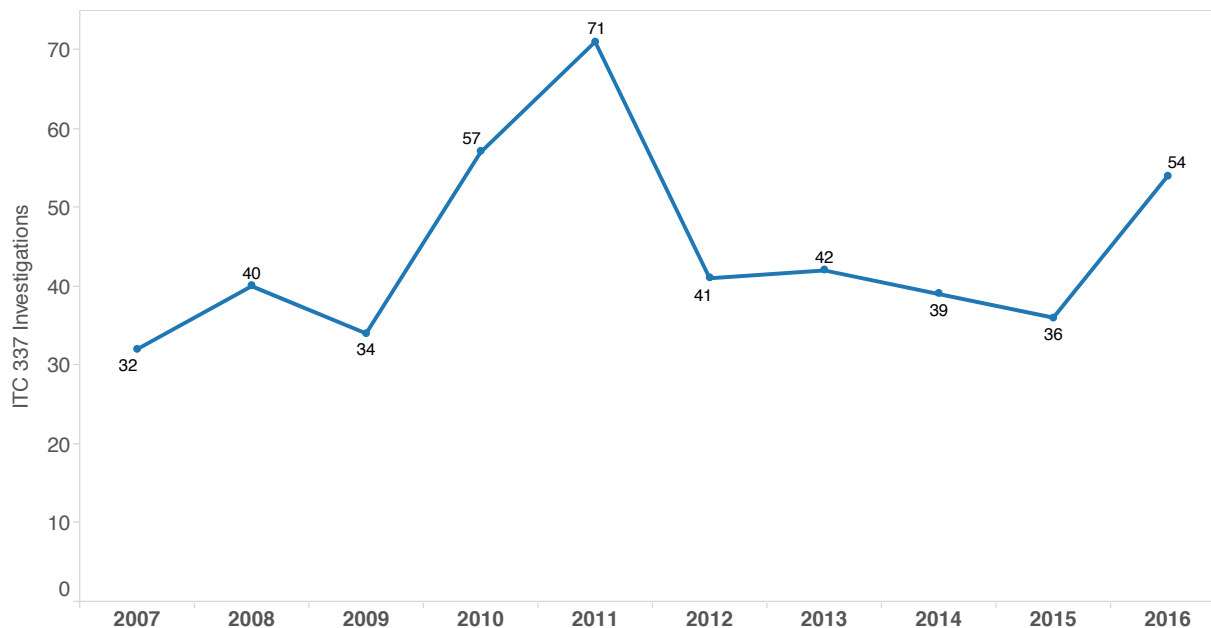


Figure 57: ITC dispositive outcomes, by current ALJ, investigations noticed and terminating 2007-2015

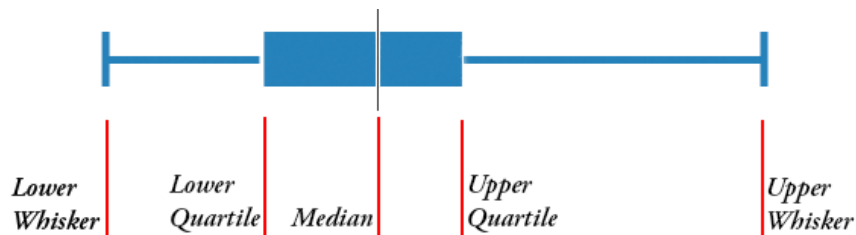
	Barton	Bullock	Charneski	Essex	Gildea	Harris	Lord	Luckern	Pender	Rogers	Shaw
Disposition											
Cease & Desist Order	3	7	7	10	2			4	2	4	2
Complaint Withdrawn	1	7	5	10	6		1	5	8	9	4
Consent Order		7	2	6	6		1	5	1	4	1
General Exclusion Order		5	2	5	3			4	2	1	2
Limited Exclusion Order	3	11	11	10	4	1	1	5	2	6	4
No Violation Found	1	14	5	14	8		1	12	2	15	5
Other		4	1	2				3			3
Settlement	2	31	16	29	25		2	18	11	23	10
Violation Found	2	6	9	11	5	1		8	1	4	2

Using Boxplots to Understand Timing

Lex Machina’s analytics use a data visualization known as the boxplot to convey information about the timing of significant events in a case. Knowing how to interpret this data gives you an advantage when it comes to strategy, budgeting, and setting expectations, as well as in other decisions that involve case timing.

Consider a newly filed case: Regardless of whether you’re an outside counsel, say, trying to determine how large of a flat fee to charge or trying to make sure two trials don’t overlap, or an inside counsel estimating legal spend and evaluating a firm’s proposed budget, case timing matters. Knowing the lower and upper bounds of how long it may reasonably take the case to reach injunction can give both kinds of counsel a strategic advantage over opponents lacking such nuanced information. Moreover, knowing the best and worst case scenarios for timing, or exactly how likely it is that a case will be active in 6 months enables more far-sighted contingency planning.

A boxplot summarizes a series of data points to help you understand the shape, or distribution of the values in those points. The boxplot is drawn based on five numbers: the median, the upper and lower quartiles, and the whiskers for a distribution.



Paying attention to these key parts of the plot will help you quickly understand what you need to know. Although boxplots provide a wealth of information, the four observations below, in order from simplest onwards, are all one needs to easily grasp the significance of a boxplot.

Median: the middle dividing line of the box splits the data points evenly so that 50% fall to either side. It’s a form of average that gives a single number representation of what to reasonably expect.

Box bounds: the box encloses the middle-most 50% of the datapoints (from the 25th percentile to the 75th), with 25% of the datapoints falling outside to either side. This makes the box a good representation of the range one can reasonably expect.

Box compressed or elongated: a more compressed box means that more datapoints fall into a smaller range of time and therefore are more consistent; in contrast a longer box means that the datapoints are spread out over a wider time period and are therefore less predictable.

Whiskers: Whiskers are drawn to show the outside bounds of reasonable expectation, beyond which datapoints are considered outliers.¹

¹ By statistical convention, boxplots define outliers as points beyond more than 1.5 times the width of the box (sometimes called the “interquartile range”).

Lex Machina Product Enhancements in 2016

In 2016, Lex Machina rolled out new key features that give our subscribers unprecedented power to analyze and easily discern trends in the cases that matter to them.

Although we make software updates to the platform every week, below are some of the major enhancements which we introduced in 2016:

- [Attorney Data Engine](#) (Feb): Extracts attorney and law firm data from document signature blocks and Pro Hac Vice (PHV) applications.
- [Mass Counterfeiter Default Damages](#) (April): Separates trademark damages awarded against long lists of aliases and businesses (often with uncertain or overlapping real identities) when the damages are awarded as a rate (e.g. \$1m against each defendant in attached schedule A).
- [Orange Book Data case list columns](#) (May): See which drugs and ingredients are at issue in ANDA cases, and which patents are related to particular drugs or ingredients.
- [Securities Practice Area](#) (June): Explore securities with findings and damages specifically designed for securities.
- [Courts and Judges Comparator App](#) (Aug): Model venue selection or transfer options with only a few clicks.
- [Antitrust Practice Area](#) (Sept): The familiar power of Lex Machina with new features, findings, and damages for antitrust cases.
- [Law Firm Comparator App](#) (Sept): Compare outside counsel on timing and results, or benchmark your firm against your competitors.
- [Magistrate Judge Data](#) (Sept): Get a more accurate intelligence on how magistrate judges run their cases.
- [Multidistrict Litigation](#) (Sept): Easily pivot between MDLed cases and the master case, or to other related cases within the same MDL proceeding.
- [New Timing Events](#) (Sept): Improve budgeting with time to contested dismissal, summary judgment or class certification.
- [Parties Comparator App](#) (Nov): Learn if your company's legal strategy is working as well as your competitors, or demonstrate how your law firm's clients do better than those represented by the other guy.
- [Damages Explorer App](#) (Nov): Analyze damages awards in greater detail.
- [Help Center](#) (Nov): A new help center provides better answers to common questions, as well as access for subscribers to all of Lex Machina's published reports (like this one!)

Lex Machina is also looking forward to launching four new practice areas in 2017: Bankruptcy, Commercial Litigation, Products Liability, and Employment.



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