United States Patent and Trademark Office

STUDY OF HIGH-VOLUME FILERS AND DOMESTIC UNIVERSITY-RELATED PATENTEES IN DISTRICT COURT LITIGATION AT THE PTAB

STUDY OF HIGH-VOLUME DISTRICT COURT FILERS AND DOMESTIC UNIVERSITY-RELATED PATENTEES IN DISTRICT COURT AND AT THE PTAB

Background

The Leahy-Smith America Invents Act (AIA) introduced administrative trial proceedings that allow petitioners to challenge the patentability of claims of issued patents before the United States Patent and Trademark Office's (USPTO) Patent Trial and Appeal Board (PTAB). Those AIA trial proceedings, including Inter Partes Review (IPR) and Post Grant Review (PGR) proceedings, frequently are filed in conjunction with co-pending district court litigation. The USPTO has been studying who uses the PTAB system, including both petitioners (patent challengers) and patent owners, to better inform its decisions as it moves forward in improving AIA trial proceeding-related processes.

For this study, the USPTO looked at statistical information regarding the most active high-volume district court filer patentees (HVFs) and domestic university-related patentees (URPs) involved in district court litigation from January 1, 2019, through December 31, 2024, focusing on patentees whose utility and reissue patents were at issue in district court litigation in this timeframe.¹ The district court cases we examined account for more than 10% of cases filed in the 2019-2024 time period.

Intent of Study

The USPTO examined HVF patentees as litigants in district court and specifically focused on how often patents of those litigants are challenged before the PTAB. The USPTO study focused on the top 20 HVF patent litigants in district court, excluding patentees who primarily assert design patents or are primarily involved in ANDA-related litigation. We also analyzed URPs whose utility patents are asserted in district court. For both HVFs and URPs, we examined how often their patents are challenged before the PTAB. What follows is a summary of key takeaways and trends.

Study Results

- University-Related patents were challenged more often before the PTAB than HVF patents
 - For every 100 district court patent cases filed involving a HVF patent, approximately 7 AIA trial petitions were filed at the PTAB on HVF patents (162 AIA petitions/2192 district court cases)
 - For every 100 district court patent cases filed involving a URP patent, approximately 83 AIA trial petitions were filed at the PTAB on URP patents (92 AIA petitions/111 district court cases)

From 2019 to 2024, the top 20 HVFs were parties to 2,192 district court cases, in which their patents were at issue. In that same time period, 162 AIA trial proceeding petitions were filed against HVF patents. By contrast, the top 20 URPs were parties to 111 district court cases, in which their patents were at issue. In that same time period, 92 AIA trial proceeding petitions were filed against URP patents.

Thus, in the same timeframe, URP patents were challenged over 10 times more often than HVF patents. As described further below, we did not correlate specific district court patent assertions with specific AIA challenges. Thus, these percentages do not reflect the likelihood that a specific district court assertion will result in an AIA challenge. Rather, our findings are reflective of how often the different types of parties' patents are challenged before the PTAB.

 15% of the top 20 HVFs whose patents were at issue in district court litigation had patents challenged before the PTAB by one of their district court adversaries

Of the top 20 HVFs, in the 2019-2024 time period, seven had patents challenged before the PTAB, and three of those seven had patents challenged by one of their district court adversaries, *i.e.*, challengers who were also parties to district court litigation involving the HVFs. The number of patents challenged does not reflect a direct correlation between patent assertions and AIA trial challenges, but are reflective of how often the different types of parties' patents are challenged before the PTAB.

83% of the university-related patentees in our study had patents subject to AIA trial challenges before the PTAB

Of the top 20 URPs, in the 2019-2024 timeframe, nineteen out of twenty-three had patents challenged before the PTAB. The number of patents challenged does not reflect a direct correlation between patent assertions and AIA trial challenges, but are reflective of how often the different types of parties' patents are challenged before the PTAB.

• For the top HVF district court filers, the percentage of AIA trial challenges to total "assertions" of HVF-owned patents in district court was less than 4%.

From 2019-2024, the top 20 HVFs had their patents at issue in district court (whether asserted by them or placed at issue by a purported infringer/non-infringer, e.g., in a declaratory judgment action) 4,292 times. During the same time period, HVFs' patents were challenged in 162 AIA trial proceedings. This finding does not correlate specific district court assertions to specific PTAB challenges, but reflects the general rate at which HVF patents are challenged before the PTAB.

• For URP patents, the percentage of AIA trial challenges to total "assertions" of URP-owned patents in district court was about 28%

From 2019-2024, the top 20 URPs had their patents at issue in district court (whether asserted by them or placed at issue by a purported infringer/non-infringer, e.g., in a declaratory judgment action) 325 times. During the same time period, URPs' patents were challenged in 92 AIA trial proceedings. This finding does not correlate specific district court assertions to specific PTAB challenges, but reflects the general rate at which URP patents are challenged before the PTAB.

 33% of the time that unique HVF patents were at issue in district court litigation, HVFs had unique patents challenged before the PTAB

From 2019-2024, the top 20 HVFs had 341 unique patents at issue in district court cases (whether asserted by them or placed at issue by a purported infringer/non-infringer, e.g., in a declaratory judgment action). During the same period, HVFs had 112 unique patents challenged in AIA trial proceedings.

 42% of the time that unique URP patents were at issue in district court litigation, URPs had unique patents challenged before the PTAB

From 2019-2024, the top 20 URPs had 170 unique patents at issue in district court cases (whether asserted by them or placed at issue by a purported infringer/non-infringer, e.g., in a declaratory judgment action). During the same period, URPs had 72 unique patents challenged in AIA trial proceedings.

Summary Comparing High-Volume Filers and Domestic University-Related Patentees in District Court Litigation and in AIA Trial Proceedings

The following charts provide statistical information regarding the most active HVF and URP patentees in district court litigation from January 1, 2019, through December 31, 2024. The first chart focuses on HVFs whose patents are at issue in district court cases. The second chart focuses on URPs whose patents are at issue in district court cases over the same time period. The data below are based on utility and reissue patents at issue in district court litigation and excludes design patents and plant patents. For HVFs, the data also excludes parties who were primarily involved in ANDA-related litigation. The district court cases account for more than 10% of cases filed in the 2019-2024 time period.³

For HVFs, in 2,192 district court actions in which 341 unique patents were at issue for a total of 4,292 "assertions," ⁴ 162 AIA trial petitions were filed against 112 HVF patents. ⁵ By contrast, for URPs in 111 district court actions in which 170 unique patents were at issue for a total of 325 "assertions," 92 AIA trial petitions were filed against 72 URP patents. While these numbers do not reflect a direct correlation between asserted claims or patents and challenges before the PTAB, the relative number of AIA trial proceeding challenges filed against HVF patents (162/2,192) is lower than the relative number of AIA trial proceeding challenges filed against URP patents (92/111). We also note that HVF district court cases, on average, were resolved in less than one year. For the HVF district court cases that were concluded, on average they remained pending less than 6 months, and the over 80% concluded in under a year. By contrast, for the URP district court cases that were concluded, on average they remained pending about 18 months, and less than 40% concluded in under a year.

Also of note, for AIA trial proceeding challenges filed against HVF patents, the vast majority of those proceedings challenged the patents of three of the top 20 HVFs (158 out of 162 proceedings) and the remaining four challenges were brought by third parties to litigation.

Finally, a majority of the HVFs were represented (at least in part) in district court litigation by the most frequent counsel for patentees over the 2019-2024 time period.⁶ The top 10 firms representing patentees in the relevant time period were involved in more than 30% of all district court patent cases (involving utility or reissue patents) docketed over that time period.

A description of the methodology used for this comparison is provided in **Appendix A**.

¹ HVFs are the top filers in terms of number of cases docketed in U.S. district courts during the time period of January 1, 2019 through December 31, 2024, whose utility or reissue patents are at issue. The purpose of this study was to focus on the dynamics of utility patent litigation. URP litigants are 20 academic institutions or related entities such as research foundations whose patents are most frequently at issue in district court litigation. To identify these parties, we identified patent litigants whose names include "University," "Institute," "College," "Tech," "Research," or "Foundation." We then confirmed whether the parties were affiliated with a U.S. academic institution. There are 23, rather than 20, URPs in the study, because there was a tie among several institutions for the 20th spot. For both HVFs and URPs, we excluded patentees who primarily assert design patents because design patents those cases involve substantially different business dynamics than more routine utility patent litigation.

² The use of "top" filers refers to the most active parties or litigants in terms of filing numbers.

³ We analyzed 2,321 patent cases filed in district court from 2019 through 2024. Based on docket searches using Docket Navigator®, 20,591 patent infringement cases involving utility or reissue patents were filed during this timeframe, and 829 of those cases were transferred or severed.

⁴ Docketed cases include some declaratory judgment actions, seeking declarations of noninfringement and/or invalidity of patents-at-issue, and not every patent-at-issue in a docketed case necessarily includes assertions of infringement of each patent. For the purpose of the charts below, total patent "assertions" include the total number of patents-at-issue that are identified as being assigned to the patentee, regardless of whether the patentee asserted infringement of each patent.

⁵ In some instances, the AIA trial proceedings or PTAB challenges involved non-parties to the identified district court litigations and/or included patents that were not at issue in district court cases. The number of AIA trial proceedings generally covers the same 2019-2024 time period, but also captures some related proceedings that were filed in the first quarter of 2025.

⁶ Based on search reports using Docket Navigator® for law firms representing patentees over the 2019-2024 time period, the top ten firms (by filing numbers) represented patentees in 8,429 district court cases out of a total of 26,537 cases. To the extent that the same law firm was identified under more than one name, we attempted to deduplicate the search results. Based on additional searches and a review of case dockets, for over half the cases involving HVFs, they were represented (at least, in part) by a top ten firm (by filing numbers).

Top HVF Patentees by Filing Numbers in District Court Litigation from 2019 to 2024 (excluding design and plant patents)

Rank (by # of D Ct cases filed)	Name	District Court (D Ct) Cases Docketed	Average Days to Resolution ⁷ (excluding cases active as of May 21, 2025)	Number of Active D Ct Cases (as of May 21, 2025)	Percent D Ct Cases Resolved in Under One Year ⁸	PTAB Challenges	Number of Unique Patents at Issue (PTAB)	Number of Unique Patents at Issue (D Ct)	Number of "Assertions" of Patents (D Ct)
1	Cedar Lane Technologies Inc.	381 ⁹	126.94	610	97.11 ¹¹	1 ¹²	1	58	1065 ¹³
2	Patent Armory Inc.	205	103.29	5 ¹⁴	97 ¹⁵	0	0	12	831
3	WSOU Investments, LLC d/b/a Brazos Licensing and Development	195	543.38	13	33.516	52 ¹⁷	51	14518	216
4	Bell Semiconductor, LLC	116 ¹⁹	244.80	0	76.72 ²⁰	20 ²¹	11	37	262
4	Symbology Innovations, LLC	116	113.28	0	98.2722	0	0	4	155
6	AML IP, LLC	111 ²³	213.22	11	84.00 ²⁴	1 ²⁵	1	3	113
7	VDPP, LLC	95 ²⁶	173.72	3	93.48 ²⁷	0	0	10	157
8	Linfo IP, LLC	93	162.23	1	93.48 ²⁸	0	0	3	93
9	Torus Ventures LLC	85	9.31	24 ²⁹	100 ³⁰	0	0	1	85
10	Rothschild Broadcast Distribution Systems, LLC ("RBDS")	82 ³¹	101.06	1	97.53 ³²	033	0	1	82
11	Consolidated Transaction Processing LLC	81	171.26	0	97.53 ³⁴	0	0	5	186
12	Communication Interface Technologies, LLC	80	162.26	6 ³⁵	97.3 ³⁶	0	0	3	240
13	mCom IP, LLC	79	157.36	1	93.59 ³⁷	1 ³⁸	1	1	79
14	Social Positioning Input Systems, LLC	78 ³⁹	108.88	2 ⁴⁰	98.6841	0	0	1	78
15	Geographic Location Innovations LLC	70	108.59	0	97.14 ⁴²	043	0	1	70

Rank	Name	District Court	Average	Number	Percent	PTAB	Number	Number	Number of
		(D Ct) Cases	Days to	of	D Ct	Challenges	of	of	"Assertions"
(by #		Docketed	Resolution ⁷	Active	Cases		Unique	Unique	of Patents
of D			(excluding	D Ct	Resolved		Patents	Patents	(D Ct)
Ct			cases	Cases	in Under		at Issue	at Issue	
cases			active as of	(as of	One		(PTAB)	(D Ct)	
filed)			May 21,	May 21,	Year ⁸				
			2025)	2025)					
16	BE Labs, Inc.	67	114.58	2	96.9244	0	0	2	134
16	Stormborn Technologies LLC	67	106.87	0	100	0	0	1	67
18	Display Technologies, LLC	66 ⁴⁵	162.75	1	93.85 ⁴⁶	1 ⁴⁷	1	2	71
19	S3G Technology LLC	64	152.4	2	98.39 ⁴⁸	0	0	9	200
20	Uniloc 2017 LLC	62 ⁴⁹	556.76	0	43.5550	86 ⁵¹	46 ⁵²	42	108
	Totals	2192 ⁵³	179.65 ⁵⁴	78		162	112	341	4,292

⁷ If a case was transferred, days to resolution is based the days pending for a single dispute.

⁸ Based on case status of "Terminated."

⁹ Docket Navigator® shows 4 cases that were either misfiled by Cedar Lane or filed by Patent Armory and are identified as Cedar Lane cases instead of Patent Armory cases and are not included in this count: *Patent Armory Inc. v Artec Europe, Sarl*, 2:23-cv-00386 (E.D. Tex.), *Patent Armory Inc. v. Scantech Americas, Inc.*, 1:23-cv-00949 (D. Del.), *Patent Armory Inc. v. Dental Imaging Technologies, LLC*, 1:23-cv-00948 (D. Del.), and *Cedar Lane Technologies Inc. v. 3Shape, Inc.*, 1:23-cv-00950 (D. Del.).

¹⁰ Four of these active cases were filed in 2022 and it does not appear service was effectuated. The other two active cases were pending less than 200 days as of 5/21/2025. One case shown as active is treated as "terminated" because a notice of dismissal was filed in 2024.

¹¹ 370 out of 381 cases concluded in less than one year. Based on a review of dockets for the cases pending over one year, all were dismissed without substantive activity.

¹² This single IPR petition was filed by Unified Patents.

¹³ One patent "assertion" added after in declaratory judgment counterclaim. See Case No. 6-22-cv-00811 (W.D. Tex.).

¹⁴ In three of these cases, it does not appear service was effectuated. In the other two, the defendants filed motions to dismiss under Section 101, which were denied without prejudice.

¹⁵ 194 out of 200 cases were resolved in less than one year. Based on a review of dockets for the cases pending over one year, all appear to have been dismissed without substantive activity.

¹⁶ 59 out of 176 cases were resolved in less than one year. A number of the cases were filed in W.D. Texas and pended for over three years.

¹⁷ One new petition included in this count was filed on January 9, 2025, and 51 were filed between January 1, 2019, and December 31, 2024. Two cases incorrectly identified WSOU as Patent Owner and were removed from the count (confirmed list using USPTO P-TACTS data). Two IPRs were filed by Unified Patents: the remaining 50 were filed by parties to litigation (or their RPIs).

¹⁸ Two district court cases included a typographical error for a patent number, including U.S. Patent No. 6,882,267, instead of 6,882,627.

¹⁹ Includes two declaratory judgment actions. Note that Bell also asserted patents in 3 ITC actions.

²⁰ 89 out of 116 cases were resolved in less than one year.

²¹ One IPR was filed by Advanced Semiconductor Engineering, and the remaining 19 were filed by parties to litigation (or their RPIs).

²² 2 cases were pending for over a year before being dismissed and no substantive litigation (beyond a motion for default judgment, which was denied) appears to have occurred in those cases.

²³ This includes two declaratory judgment actions that settled shortly after filing.

²⁴ 84 out of 100 cases were resolved in less than one year from filing.

²⁵ This single IPR proceeding was filed by Askeladden LLC.

²⁶ Includes one declaratory judgment action.

²⁷ 86 out of 92 cases were resolved in less than one year from filing.

²⁸ 86 out of 92 cases were resolved in less than one year from filing.

²⁹ Limited substantive activity in pending cases, all pending for less than one year.

³⁰ 61 cases were resolved in 300 days or less.

³¹ Includes one declaratory judgment action with counterclaims for infringement of a Display Technologies patent in addition to counterclaim for infringement of an RBDS patent, and one case that appears in Docket Navigator® with Social Positioning Input Systems, LLC as the first named plaintiff (2:21-cv-03623 (C.D. Cal.)).

³² 79 out of 81 cases were resolved in less than one year. For the two that were not, they appear to have been dismissed without substantive activity.

³³ Two petitioners filed separate, singular IPR petitions against claims of one asserted patent pre-2019. Both proceedings were terminated as a result of settlement.

³⁴ 79 out of 81 cases were resolved in less than one year. Of the two cases pending over a year, one was administratively closed due to bankruptcy proceedings before being dismissed.

³⁵ Two of 6 active cases have been stayed because of bankruptcy proceedings and three have been consolidated for claim construction proceedings.

 $^{^{\}rm 36}$ 72 out of 74 cases were resolved in less than one year.

 $^{^{37}}$ 73 out of 78 cases were resolved in less than one year from docketing.

³⁸ This single petition was filed by Unified Patents, in which the challenged claims were found unpatentable.

³⁹ Excludes Case No. 2:21-cv-03623 (C.D. Cal.), which Docket Navigator® linked to Social Positioning Input Systems, LLC instead of Rothschild Broadcast Distribution Systems, LLC.

 $^{^{\}rm 40}$ Active cases have been pending less than one year and one is stayed pending settlement.

 $^{^{41}}$ 75 out of 76 cases resolved in less than one year. The remaining case was dismissed for failure to prosecute.

⁴² 68 out of 70 cases were resolved in less than one year. Of the two cases that pended for over a year, neither appears to have had substantive activity.

 $^{^{43}}$ One petition was filed by Unified Patents pre-2019, which was terminated as a result of settlement.

⁴⁴ 63 out of 65 cases were resolved in less than one year. Of the two cases that pended for over a year, neither appears to have had substantive activity.

⁴⁵ This includes one declaratory judgment action with counterclaims for infringement, which was pending as of May 21, 2025.

⁴⁶ 61 out of 65 cases were resolved in less than one year. Of the remaining proceedings, they involved entries of default judgment or dismissals following motions for default judgment.

⁴⁷ This petition was filed by Unified Patents and the proceeding was terminated as a result of settlement.

⁴⁸ 61 out of 62 cases were resolved in less than one year. The remaining case was stayed following notice of bankruptcy proceedings.

⁴⁹ This includes 5 declaratory judgment actions.

⁵⁰ 27 out of 62 cases were resolved in less than one year. The other cases include ones that were stayed for IPR proceedings and subject to motions to dismiss for lack of standing, followed by appeals.

⁵¹ These petitions were primarily filed by parties to litigation (or their RPIs). One petition was filed by Unified Patents and two were filed by Marvell Semiconductor, from whom Microsoft sought indemnification. Two petitions were filed by Ericsson, who intervened in a case filed against AT&T Services. In addition, parties filed 66 petitions pre-2019 against Uniloc patents.

⁵² 73 Uniloc patents at issue over all time.

⁵³ RBDS and Display Technologies are named declaratory judgment defendants in a case, and total number of docketed cases has been adjusted accordingly.

⁵⁴ Unweighted average

Top URP Patentees by Filing Numbers in District Court Litigation from 2019 to 2024 (excluding design and plant patents)

Rank (by # of D Ct cases filed)	Name	District Court (D Ct) Cases Docketed ⁵⁵	Average Days to Resolution (excluding cases active as of May 21, 2025)	Number of Active D Ct Cases (as of May 21, 2025)	Percent D Ct Cases Resolved in Under One Year ⁵⁶	PTAB Challenges	Number of Unique Patents at Issue (PTAB)	Number of Unique Patents at Issue (D Ct)	Number of "Assertions" of Patents (D Ct)
1	The Regents of the University of California ("Regents – UCal")	29 ⁵⁷	498.85	2	48.15 ⁵⁸	14 ⁵⁹	10	32	98
2	Sloan Kettering Institute for Cancer Research et al.	10	501.8	0	40 ⁶⁰	2 ⁶¹	2	3	11
2	University of South Florida Board of Trustees ("USF")	10 ⁶²	388.44	1	66.67 ⁶³	3 ⁶⁴	2	9	15
4	President and Fellows of Harvard College	7 ⁶⁵	615.86	0	28.57	7	5	16	23
4	Northwestern University	7	520.83	1	50	3 ⁶⁶	3	6	21
6	California Institute of Technology	6	926.2	1	20 ⁶⁷	7 ⁶⁸	7	9	24
6	Dana-Farber Cancer Institute, Inc.	6 ⁶⁹	415	0	50	1 ⁷⁰	1	3	7
6	The Regents of the University of Michigan ("Regents – UMich")	6 ⁷¹	630.2	1	40	4 ⁷²	3	6	16
9	The Board of Trustees of the Leland Stanford Junior University ("Stanford")	5	610.5	1	25	3 ⁷³	3	9	10

Rank (by # of D Ct cases filed)	Name	District Court (D Ct) Cases Docketed ⁵⁵	Average Days to Resolution (excluding cases active as of May 21, 2025)	Number of Active D Ct Cases (as of May 21, 2025)	Percent D Ct Cases Resolved in Under One Year ⁵⁶	PTAB Challenges	Number of Unique Patents at Issue (PTAB)	Number of Unique Patents at Issue (D Ct)	Number of "Assertions" of Patents (D Ct)
9	The Research Foundation for The State University of New York ("RFSUNY")	5	568.33	2 ⁷⁴	33.33	3 ⁷⁵	3	6	10
11	The Trustees of the University of Pennsylvania ("UPenn")	4	865	0	25	5 ⁷⁶	5	4	4
12	University of Connecticut	3	427	2 ⁷⁷	0	1 ⁷⁸	1	2	4
12	Worcester Polytechnic Institute ("WPI")	3	427	2 ⁷⁹	0	280	2	6	16
12	University of Pittsburgh of the Commonwealth System of Higher Education	3	682	0	33.33	0	0	5	5
12	The Scripps Research Institute	3		3		0	0	2	4
12	The Trustees of Purdue University ("PurdueU")	3	959	0	0	6 ⁸¹	2	3	5
12	Massachusetts Institute of Technology ("MIT")	3	656.5	1	0	1282	8	8	8
12	The University of Chicago ("UChicago")	3	548	0	0	1 ⁸³	1	4	5
19	Purdue Research Foundation	2	234	1	100	0	0	2	2
19	Rensselaer Polytechnic Institute	2	1079	0	0	284	1	3	3

Rank (by # of D Ct cases filed)	Name	District Court (D Ct) Cases Docketed ⁵⁵	Average Days to Resolution (excluding cases active as of May 21, 2025)	Number of Active D Ct Cases (as of May 21, 2025)	Percent D Ct Cases Resolved in Under One Year ⁵⁶	PTAB Challenges	Number of Unique Patents at Issue (PTAB)	Number of Unique Patents at Issue (D Ct)	Number of "Assertions" of Patents (D Ct)
19	The Johns Hopkins University ("Hopkins")	2 ⁸⁵	213	1	100	1186	10	20	20
19	University of Washington ("UWash")	287		2		888	4	7	7
19	Washington University	2	635	0	50	0	0	7	7
-	-								
	Totals	111 ⁸⁹	590.55 ⁹⁰	21		92 ⁹¹	72	170 ⁹²	325

⁵⁵ If a case was transferred, days to resolution is based the days pending for a single dispute. May include cases in which more than one URP is a named party.

⁵⁶ Based on case status of "Terminated."

⁵⁷ Regents – UCal filed two ITC actions. (Omits one case in which Regents – UCal is a defendant with no Regents – UCal patents asserted.)

 $^{^{58}}$ 13 of 27 cases were resolved in less than one year.

⁵⁹ In one case, Regents – UCal is a non-party to litigation in which the challenged patent is asserted by its exclusive licensee. In the other matters, it is either a declaratory judgment defendant or a plaintiff/co-plaintiff in litigation.

⁶⁰ 4 out of 10 cases were resolved in under one year.

 $^{^{\}rm 61}$ Patents are at issue in litigation brought by named exclusive licensee.

 $^{^{\}rm 62}$ Includes one declaratory judgment action.

 $^{^{\}rm 63}$ 6 out of 9 cases were resolved in less than one year.

⁶⁴ The patents are at issue in district court litigation. In the case of two petitions (filed against the same patent), the patent-at-issue is alleged to be co-owned with Regents – UMich, which is also a party to the district court case.

⁶⁵ Omits one case (*Bio-Rad Laboratories, Inc. v. 10X Genomics, Inc.*, 3-20-cv-03207 (N.D. Cal.)), which involved severing and transferring assertions of non-Harvard patents.

⁶⁶ The patents at issue are the subject of district court litigation against ABB, in a suit in which Northwestern University is the sole plaintiff.

⁶⁷ 1 out of 5 cases were resolved in less than one year.

⁶⁸ Patents also asserted in district court litigation. In one case involving 3 patents, the named exclusive licensee is also a plaintiff.

⁶⁹ Excludes one consolidated case number in which Bristol-Myers Squibb patents are asserted.

⁷⁰ This case is a PGR and has no related matters and the petitioner does not appear to be party to any litigation.

⁷¹ Excludes cases in which Regents – UMich appears as an *amicus* party.

⁷² The patents at issue are alleged to be owned or co-owned by Regents – UMich. In one case, the patent is not involved in litigation and the petitioner is not a party to litigation with Regents – UMich, but is a party in unrelated matters. The other two patents are the subject of litigation brought by Regents – UMich as a plaintiff alone or as a co-plaintiff with University of South Florida Board of Trustees.

⁷³ Six patents are at issue in related district court litigation (10x Genomics, Inc. v. Parse Biosciences, Inc., 1-22-cv-01117 (D. Del.)), in which Stanford is a party. Of the six patents, Stanford is the alleged owner of three patents and is a plaintiff along with its exclusive licensee, which is the alleged owner of the other three patents at issue.

⁷⁴ A joint motion to dismiss is pending in one case and a motion to stay pending settlement is pending in the other. Note that University of Connecticut and Worcester Polytechnic Institute are also parties to both cases.

⁷⁵ Includes one petition filed after 12/31/2024 (on February 4, 2025). In two cases, RFSUNY is a counterclaim plaintiff in related litigation (along with its exclusive licensee) (*Acera Surgical, Inc. v. Nanofiber Solutions, LLC*, 1-20-cv-00980 (D. Del.)), asserting infringement of two patents. Six other patents are at issue in the litigation and RFSUNY does not appear to have an interest in those patents. In the remaining case, RFSUNY is a plaintiff in co-pending litigation also brought by University of Connecticut and Worcester Polytechnic Institute. RFSUNY is alleged to be co-owner of a challenged patent and a full owner of a second patent. Five other patents, for which RFSUNY does not appear to have an interest, are at issue in litigation, *The Research Foundation for The State University of New York v. Xiaomi Corp.*, (2-23-cv-00353, E.D. Tex.).

⁷⁶ Of the five proceedings, one involves related litigation brought by UPenn and its exclusive licensee. The other 4 proceedings include three IPRs and one PGR with no related litigation. In each, the patents-at-issue are asserted to be owned by UPenn.

⁷⁷ A joint motion to dismiss is pending in one case and a motion to stay pending settlement is pending in the other. Note that The Research Foundation for The State University of New York and Worcester Polytechnic Institute are also parties to both cases.

⁷⁸ Includes one petition filed after 12/31/2024 (on January 31, 2025) by Zepp Health Corporation. UConn is a plaintiff in related litigation in which the challenged patent is asserted against Zepp Health. The Research Foundation for The State University of New York and Worcester Polytechnic Institute are also plaintiffs in the district court action. There are six other patents asserted in the litigation that are not associated with UPenn – and no licensees appear to be involved in the actions.

⁷⁹ A joint motion to dismiss is pending in one case and a motion to stay pending settlement is pending in the other. Note that The Research Foundation for The State University of New York and University of Connecticut are also parties to both cases.

⁸⁰ Includes two petitions filed after 12/31/2024 (on February 3 and February 4, 2025) by Zepp Health Corporation. Of the two patents challenged in these petitions, one is alleged to be owned by WPI and one is alleged to be co-owned by WPI and RFSUNY, and both are asserted in related litigation (*The Research Foundation for The State University of New York v. Xiaomi Corp.*, (2-23-cv-00353, E.D. Tex.)) against the challenger. Of the nine asserted patents, WPI is the alleged owner of six, and co-owner of one. It has no apparent interest in the other two.

⁸¹ PurdueU asserted the patents-at-issue against the PTAB challengers in district court litigations. PurdueU is the sole plaintiff in those cases.

⁸² The patents at issue have all been challenged by parties to related litigation and are alleged to be owned by MIT and exclusively licensed to coplaintiffs. In one litigation (*WiTricity Corp. v. Momentum Dynamics Corp.*, 1-20-cv-01671 (D. Del.), MIT is the alleged owner of one patent and six others are asserted, which are alleged to be owned by others.

⁸³ The challenged patent asserted in *Bio-Rad Laboratories, Inc. v. Dropworks, Inc.*, No. 1:20-cv-00506-UNA (D. Del.), in which UChicago is a plaintiff along with its exclusive licensee (and other co-plaintiffs). Seven patents are at issue in the district court litigation; UChicago is the alleged assignee of two asserted patents and does not appear to have an interest in the other five patents.

⁸⁴ Two petitions filed by Amazon.com (district court litigant) against a single patent.

⁸⁵ Declaratory judgment actions

⁸⁶ Includes one petition filed after 12/31/2024 (on March 28, 2025) by GE Healthcare, which challenges a patent that is the subject of a separate PGR proceeding – and there is no related litigation for either petition. The remaining 9 proceedings involve patents asserted (by Johns Hopkins as a counterclaim defendant) against the petitioner.

⁸⁷ University of Washington is a counterclaim-plaintiff in one of the actions.

⁸⁸ The four patents that are the subject of IPRs are asserted in related litigation by UWash and its named exclusive licensee against the petitioner. Note that the case involves counterclaims of 4 patents against the licensee and there appears to be an inventorship dispute.

⁸⁹ Adjusted to account for docketed cases in which multiple URPs are parties, Case Nos. 1-19-cv-11587 (D. Mass), 1-20-cv-00506 (D. Del.), 1-20-cv-00980 (D. Del.), 1-22-cv-00678 (D. Del.), 1-22-cv-00688 (D. Del.), 1-22-cv-00696 (D. Del.), 2-22-cv-03044 (D.N.J.), 2-22-cv-03186 (D.N.J.), 2-23-cv-00141 (E.D. Tex.), 2-23-cv-00353 (E.D. Tex.), 2-23-cv-00553 (E.D. Tex.), and 3-22-cv-04913 (N.D. Cal.).

⁹⁰ Unweighted average

⁹¹ Adjusted to account for URP cases in which different URPs are identified as co-owners of the same patent.

⁹² Adjusted to account for URP cases in which different URPs are identified as co-owners of the same patent.

Appendix A

Summary of Methodology

We created a list of top 20 High Volume Filer Litigants beginning with a Docket Navigator® search of the Top 200 Patentee Parties in District Court over the time period from January 1, 2019, through December 31, 2024 ("Relevant Time Period"). We chose the Relevant Time Period to obtain information more representative of current filing practices. From the Top 200 Patentee Parties list, we excluded two patentee parties who primarily assert infringement of design patents and excluded two other parties who are primarily involved in ANDA litigation to arrive at a list of top 20 district court litigants (HVFs).

For each of the HVFs, we performed Docket Navigator® searches to obtain a list of docketed district court cases involving the litigant that were filed in the Relevant Time Period, in which utility or reissue patents were asserted. In a few instances, the search results included cases that were misfiled or incorrectly associated an HVF with a docketed case, and we endeavored to exclude such cases for our analysis. We also adjusted case counts to avoid double-counting cases having more than one associated docket number due to an intradistrict or an inter-district transfer or mis-docketing but did not adjust for consolidation of proceedings. Also, in the event more than one top 20 HVF was a party to the same case, we did not attempt to limit the number of times the case was counted so that the number of cases associated with that HVF was accurate. We did make an effort to exclude patents that were not identified as having been assigned to the relevant patentee.

We reviewed the dockets for any cases identified as having "active" status to determine if the cases remained pending as of May 21, 2025. If a case had concluded, but the case docket had not been closed, we considered the case to have been "terminated." In some instances, we further reviewed the case dockets and docket entries using CourtLink®. From this list, we identified the number of cases that remained active, and then calculated the average days to resolution of all terminated cases and the percent of terminated cases that were resolved in under one year on a party-by-party basis. In addition, for each HVF litigant, we determined the number of unique patents-atissue, as well as the total number of "assertions" of patents. For the purpose of our analysis, total patent "assertions" include the total number of patents-at-issue associated with the identified HVF, regardless whether the patentee asserted infringement of each patent.

For each identified HVF litigant, we also searched for AIA trial proceedings (PTAB challenges) that were filed against patents of the HVFs over the same time period (and also included related proceedings filed during the first quarter of 2025), once again excluding design and plant patents. We then identified the number of unique patents challenged and the total number of petitions filed. We did not attempt to correlate the challenged patents or patent claims to those at issue in district court litigation nor did we correlate the challengers with district court litigants, except to confirm whether at least one of the PTAB challenges brought against an HVF was brought by one of its district court adversaries.

We repeated the same general procedure for a litigant group that we identified as top 20 Domestic University-Related Patentee Litigants (URPs). URP litigants are 20 academic institutions or related entities such as research foundations whose utility patents are most frequently at issue in district court litigation. To identify these parties, we conducted searches using Docket Navigator® to identify patent litigants whose names include "University," "Institute," "College," "Tech," "Research," or "Foundation." We then confirmed whether the parties were affiliated with a U.S. academic institution. There are 23, rather than 20, URPs in the study, because there was a tie among several institutions for the 20th spot. We then conducted the same analysis as described above for the top 20 HVFs.

As noted above, to the extent reported cases during the Relevant Time Period were not attributable to the searched party, e.g., a case was misdocketed or misfiled, we attempted to remove those cases from the overall count. Also, for both HVF and URP litigants who were identified as co-parties to a single case or co-owner of a single patent, we adjusted total numbers to avoid double-counting patents or cases. Manual review of the numerous district court and PTAB documents at issue in this study is necessarily labor intensive and inexact. Additionally, we identified some inconsistencies in the underlying district court data. Accordingly, we conducted multiple quality reviews on the data to confirm an appropriate degree of accuracy to show overall trends in patent litigation, which is the goal of the study. We found that none of the limitations inherent in the data or the manual review process would substantially affect the overall trends identified.

Finally, we prepared a table of cases by litigant, identifying specific district court cases and AIA trial proceedings over the relevant time period. The table of cases details specific information about patents at issue, district court case docket numbers and courts, and AIA trial proceeding case numbers. The table of cases is being made available along with this study. The identified parties generally reflect the first-named party and may not include all parties to a case. It also does not reflect whether a party's status changed during the course of a proceeding, e.g., if a party settled.