10-20-2014

Inter Partes Review: An Early Look at the Numbers

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81 University of Chicago Law Review Dialogue (forthcoming Oct. 2014)

In the roughly two years since *inter partes* review replaced *inter partes* reexamination, petitioners have filed almost two-thousand requests for the Patent Trial and Appeal Board to review the validity of issued U.S. patents.[1] As partial data on *inter partes* review (IPR) has trickled out via the blogosphere,[2] interest from patent practitioners and judges has grown to a fever (and sometimes fevered) pitch.[3] To date, however, no commentator has collected a comprehensive set of statistics on IPR.

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[1] The Patent Trial and Appeal Board began accepting petitions for *inter partes* review on September 16, 2012. *See* Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 304 (2011) (stating that the sections pertaining to *inter partes* review "shall take effect upon the expiration of the 1-year period beginning on the date of the enactment").

[2] *See, e.g.*, Post of Scott A. McKeown to Patents Post-Grant Blog, PTAB Institution Rate Dips Into 60% Range, http://www.patentspostgrant.com/ptab-institution-rate-dips-into-60-range (July 21, 2014); Post of Michelle Carniaux & Michael E. Sander to the *Inter Partes* Review Blog, Instituted Patent Claims Survive in About One Third of All IPR Trials, http://interpartesreviewblog.com/instituted-patent-claims-survive-one-third-ipr-trials/#more-662 (Aug. 13, 2014); Merchant & Gould, *Inter Partes* Review Procedure Statistics, http://www.merchantgould.com/OurPractice_PostGrant_IPR_Statistics.aspx (last updated Oct. 1, 2013).

[3] *See, e.g.*, Tony Dutra, *Rader Regrets* CLS Bank *Impasse, Comments on Latest Patent Reform Bill*, Bloomberg BNA, Oct. 29, 2013, http://www.bna.com/rader-regrets-cls-n17179879684/ ("[T]he PTAB . . . [is] 300 administrative patent judges 'acting as death squads, killing property rights.'" (quoting Randall Rader, then Chief Judge of the U.S. Court of Appeal for the Federal Circuit)); Post of Robert Greene Sterne & Gene Quinn to the IPWatchdog Blog, PTAB Death Squads: Are All Commercially Viable Patents Invalid?, http://www.ipwatchdog.com/2014/03/24/ptab-death-squads-are-all-commercially-viable-patents-invalid/id= 48642/ (March 2014 1:42 PM) ("Ultimately, if the PTAB continues on this path, the raison d'etre of the Patent Office and the entire patent system will be called into question . . . .").

Moreover, what little data currently exists focuses on overall institution and invalidation rates—data that, alone, gives us little idea whether IPR is thus far accomplishing its original goal of serving as a quick, efficient alternative to defending patent suits filed in federal court, particularly those initiated by non-practicing entities (NPEs).[4]

This Essay aims to fill both gaps by reporting the findings of an empirical study tracking the outcome of IPRs and their impact on co-pending litigation. As described in greater detail below, we find that:

- Petitions for IPR are instituted for at least one challenged claim 84 percent of the time;
- Among instituted IPRs, *all* challenged claims are instituted 74 percent of the time;
- Among IPRs that reach a final decision on the merits, *all* instituted claims are invalidated or disclaimed more than 77 percent of the time;
- IPRs challenging NPE-owned patents are more likely to be instituted and, on average, are instituted for a larger share of challenged claims, but have their claims invalidated at a lower rate;
- Litigation proceeding in parallel with an instituted IPR is stayed about 82 percent of the time.

Though it is too early to draw sweeping conclusions from these statistics, they suggest that *inter partes* review promises to be considerably more potent than *inter partes* reexamination and, moreover, to have a substantial impact on co-pending patent litigation, particularly suits filed by NPEs.

BACKGROUND

Prior to the America Invents Act, parties could administratively challenge issued patents at the U.S. Patent and Trademark Office via one

[4] H.R. Rep. No. 112-98, pt. 1, at 48 (2011) (referring to the post-grant review proceedings created by the AIA as "quick and cost effective alternatives to litigation"); *see also* Alston & Bird, LLP, *Inter Partes* Review – One Year Later 1 (Sept. 17, 2013) ("IPR was designed to be a cost-effective alternative to litigation. In fact, its legislative history states that the IPR process 'will allow invalid patents that were mistakenly issued by the USPTO to be fixed early in their life, before they disrupt an entire industry or result in expensive litigation.'" (quoting 157 Cong. Rec. S1326 (daily ed. Mar. 7, 2011) (statement of Sen. Sessions))), *available at* http://www.alston.com/files/publication/ba36e481-8956-4318-a846-b1547e87b773/presentation/publicationattachment/651fa1eb-2994-427d-863e-b9275e537113/13-691-inter-partes-review-one-year-laterpdf.pdf.

of two forms of reexamination: *ex parte* reexamination, which proceeded essentially as an extension of the patent's original *ex parte* examination, and *inter partes* reexamination, which allowed the challenger to take an adversarial role in the process in exchange for a waiver of its ability to re-argue validity later in court.[5]

Though originally developed to serve as a cost-effective alternative to full-blown litigation,[6] reexaminations rarely did so. To the contrary, reexamination developed a well-deserved reputation for lengthy delays, a lack of decisive results, and a permissiveness for claim amendments that led some in the patent bar to view reexamination more as a vehicle for patentees to strengthen their patent rights *post hoc* than as a tool for possible infringers to quickly and cheaply eliminate invalid claims without resorting to litigation.[7]

Spurred by (at least a perception of) widespread litigation abuse, Congress passed the America Invents Act (AIA) in 2011.[8] Among other

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[5] *See, e.g.*, RatnerPrestia, Ex Parte versus Inter Partes Reexamination, http://www.rppostgrant.com/ComparisonCharts/index.html (last visited Aug. 17, 2014) (highlighting the similarities and differences between *ex parte* and *inter partes* reexamination).

[6] *See* 145 Cong. Rec. H6929, H6944 (daily ed. Aug. 3, 1999) (statement of Rep. Dana Rohrabacher) ("This title was an attempt . . . to further encourage potential litigants to use the PTO as a [sic] avenue to resolve patentability issues without expanding the process into one resembling courtroom proceedings.").

[7] *Inter partes* reexamination took 3 years on average, after which challenged patents survived 69% of the time, generally with new claims added. Patent & Trademark Off., Inter Parte Reexamination Filing Data (Sept. 30, 2013), http://www.uspto.gov/patents/stats/inter_parte_historical_stats_roll_up_EOY2013.pdf [hereinafter PTO IPX Data]. As a result, many patent lawyers viewed reexamination as more likely to strengthen a patent than to weaken it. *See, e.g.*, Kyle J. Trout & Thomas C. Stuart, *Managing Risk in The Age Of The Patent Troll (Part 2)*, WESTLAW J. INTELL. PROP., Feb. 19, 2014, at 1 ("[R]e-examination proves to be a double-edged sword that [often] necessitates taking a license on less favorable terms against . . . strengthened reissued claims . . . ."). As evidence of this, consider that many litigation-minded patentees voluntarily subject their patents to *ex parte* reexamination. *See, e.g.*, Changes To Implement the Supplemental Examination Provisions of the Leahy-Smith America Invents Act and To Revise Reexamination Fees; Final Rule, 77 Fed. Reg. 48827 (2012) ("[T]he Office estimates that it receives approximately 110 requests for ex parte reexamination filed by patent owners annually.").

[8] Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011). On the motivations behind passage of the AIA, particularly the modification to administrative review, see, e.g., Q. Todd Dickinson, Exec. Dir., Am. Intell. Prop. L. Assoc., Testimony before the U. S. Senate Judiciary Committee hearing on Protecting Small Businesses and Promoting Innovation by Limiting Patent Troll Abuse 3-6, 8 (Dec. 17, 2013) (recounting the debate leading up to the AIA and referring to "the assertion of allegedly invalid or overbroad patents" as "the very abuse for which AIA post-grant

changes, the AIA replaced the existing regime of *inter partes* reexamination with a modified and renamed *inter partes* review.[9] The new legislation raised the bar for granting requests to review a patent, but advantaged accepted petitions by mandating a shorter time-to-completion and by allowing reviews to take place before the Patent Trial and Appeal Board (PTAB) in the first instance, rather than on appeal.[10] These modifications, legislators hoped, would transform *inter partes* administrative patent challenges into the cheap, efficient litigation alternative that *inter partes* reexamination never proved to be.[11]

STUDY DESIGN

To test the extent to which Congress has thus far achieved its goals with IPR, we collected a variety of data for every petition for *inter partes* review filed between September 16, 2012—the effective date of the statutory provision creating IPR—and March 31, 2014.[12] During this period, challengers filed a total of 979 petitions.[13] As shown below in Table 1, this tally is roughly half the total number of requests for *inter partes* reexamination filed over the course of the thirteen years prior.[14] As of September 30, 2014, the PTAB has received a total of 1,841 petitions for IPR, making the rate of *inter partes* review six times that for *inter*

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procedures were created"), *available at* http://ipwatchdog.com/blog/dickinson-senate-testimony-12-17-2013.pdf.

[9] Leahy-Smith America Invents Act, 125 Stat. at 299-305 (setting forth procedures for *inter partes* review).

[10] *See, e.g.*, Justin A. Henrix & Robert F. Schaffer, *Post Grant Proceedings of the AIA Provide New Opportunities and Require Reconsideration of Old Patent Litigation Strategies*, MED. DEVICE, June 15, 2012 (describing the similarities and differences between *inter partes* review and *inter partes* reexamination), *available at* http://www.finnegan.com/resources/articles/articlesdetail.aspx?news= 598696f7-7eba-4fcb-83b8-2369caa91dd3.

[11] *See* Dickinson, *supra* note 8.

[12] Because institution decisions are generally issued close to six months after petitions are filed, *see infra* tbl.3, this study window includes the vast majority of IPRs that received at least a preliminary ruling on their merits by the end of September 2014. Moreover, all data presented in this Essay is current as of at least September 30, 2014.

[13] To identify IPRs and access the docket for each, we used Docket Navigator, http://www.docketnavigator.com. In all, 987 petitions for IPR were filed during our study window, but we excluded eight petitions challenging design (rather than utility) patents.

[14] PTO IPX data, *supra* (showing that 1,919 petitions for inter partes reexamination were filed between November 29, 1999 and September 11, 2012).

partes reexamination.[15]

Table 1: Quantity of Filings

	Inter Partes Reexamination	*Inter Partes* Review
Total Petitions:	1919	1841
Petitions per Month:	12.5	75.1

For each IPR, we collected several pieces of information about the petition, the patent, and the parties involved. First, we determined whether or not the PTAB decided to grant, or "institute," the IPR petition.[16] We also determined whether the IPR was still pending or had terminated.[17] If it was terminated, we noted how and when it terminated. As shown below in Table 2, of the 979 petitions that fall within our study window, over 40 percent are still pending before the PTAB. However, less than one percent of these petitions are still awaiting an institution decision, which confirms that our study window contains the lion share of petitions which have, to date, received substantial attention from the PTAB.

[15] *See* Docket Navigator, http://www.docketnavigator.com.

[16] Leahy-Smith America Invents Act, 125 Stat. at 300 (setting as the standard for the "institution" of *inter partes* review whether "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition").

[17] An IPR can terminate in one of four ways: settlement, a decision not to institute the petition, a final written decision from the PTAB, and a request for adverse judgment from the patentee.

Table 2: IPRs by Outcome Type

Pending:	413 (42.2%)
No Institution Decision Yet:	4
Instituted:	409
Terminated:	566 (57.8%)
Not instituted:	191
On the merits:	132
Untimely or duplicative: [19]	59
Settled	215
After Institution:	128
Before Institution:	87
Final Written Decision or Req. for Adv. Judgment	160

Next, we determined whether or not the respondent in the IPR was a non-practicing entity.[20] Finally, we classified the challenged patent by technology[21] and determined whether or not it had ever been asserted in

[19] A party seeking IPR of a patent asserted against it in court must, by statute, file a petition within one year of being sued. 35 U.S.C. § 315(b) ("An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent."). If it fails to seek IPR within that one-year window, its petition will be denied as untimely. The PTAB also may deny a petition without reaching its merits on the grounds that it is substantially duplicative of an earlier-filed petition. 35 U.S.C. § 325(d) ("In determining whether to institute or order a proceeding . . . the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.").

[20] Non-practicing entities—patent owners that do not commercialize the patent technology and thus, in patent parlance, do not "practice" their patent rights—can take many forms, including for-profit firms engaged in patent monetization, individuals, and universities. *See, e.g.*, John R. Allison, et al., *Extreme Value or Trolls on Top? The Characteristics of the Most-Litigated Patents*, 158 U. PA. L. REV. 1, 10-11 (2009) (introducing a taxonomy of NPEs that includes – in addition to "patent assertion entities" – universities, pre-product startups, and IP-holding subsidiaries of product-producing parent companies). To classify patentees, we combined information obtained from public records (namely, court and SEC filings), the patentees' own websites, and business directories available from third-parties like Hoover's, Inc. and Bloomberg, L.P.

[21] We categorized patents as one of the following categories: high-tech, bio-pharma, other chemical, medical device, other mechanical, and other miscellaneous. *See* Brian J.

court.[22] When we found co-pending litigation between the IPR petitioner and respondent, we checked to see whether a motion to stay had been filed in the suit and, if so, when it was filed and whether it was successful.[23]

FINDINGS

In the paragraphs that follow, we provide statistics on various aspects of *inter partes* review, including the duration of review, institution rates, claim validity decisions, and impact on co-pending litigation. On the whole, what we find suggests that *inter partes* review is considerably more powerful than *inter partes* reexamination and, accordingly, more likely to serve its intended purpose as an alternative to full-blown litigation.[24]

First, we find that IPRs have thus far concluded within a relatively short period of time. As shown below in Table 3, among all terminated IPRs, the average time to termination was roughly nine months. Among just those IPRs that reached a final determination, the average pendency was roughly fifteen months—a duration still considerably shorter than the thirty-six month average pendency of *inter partes* reexamination.[25] IPR settlements, on average, occurred after seven months, and decisions not to institute came, on average, a little under six months after the petition was filed.

Love, *An Empirical Study of Patent Litigation Timing: Could A Patent Term Reduction Decimate Trolls Without Harming Innovators?*, 161 U. PA. L. REV. 1309, 1329 (2013) (describing broad definitions for "software," "high-tech," "medical device," "pharmaceutical," and "biotechnology" patents). To make the most of limited data, below we have consolidated these six classifications into four: high-tech, bio-pharma-chemical, medical device-mechanical, and other.

[22] We determined whether co-pending litigation existed by searching Lex Machina, https://lexmachina.com/, for each challenged patent's number.

[23] We collected data on motions to stay by reviewing the docket sheet available on Lex Machina for each co-pending suit.

[24] A direct comparison of statistics for *inter partes* review and *inter partes* reexamination is included below in Appendix B.

[25] *See* PTO IPX data, *supra* note 7.

Table 3: IPR Duration

	Duration (days)
All Terminated IPRs:[26]	270
Not instituted:	169
Settled	221
Final Written Decision or Req. for Adv. Judgment	456

Next, among IPRs with an institution decision, we find that petitioners have thus far been quite successful in convincing the PTAB that challenged patents deserve scrutiny. As shown below in Table 4, among IPRs for which an institution decision was made on the petition's merits, the PTAB exercised its discretion to institute review of at least one petitioned claim 84 percent of the time. Though this is lower than the historical rate of acceptance for *inter partes* reexamination—93 percent—it is nonetheless unexpectedly close.[27] In fact, 22 of the 132 IPRs that were not instituted following a decision on the merits were petitions to review patents for which another IPR *was* instituted. Taking this fact into account, less than 14 percent of petitions both sought to challenge a unique patent and were not instituted.

In addition, when PTAB panels have decided to institute *inter partes* review, they have generally concluded that review is warranted for all claims challenged in the petition. Among instituted IPRs, the PTAB instituted review of *all* challenged claims 74 percent of the time and, overall, instituted review of more than 88 percent of all challenged claims.

Moreover, as shown below in Table 5, despite the fact that almost two-thirds of IPRs challenge a patent covering a computer- and telecommunications-related invention, institution rates are quite consistent across technologies. Appendix A includes more data broken down by technology classification.

[26] Excluding IPRs not instituted as untimely or duplicative.

[27] *See* PTO IPX data, *supra* note 7 (reporting that 93% of requests for inter partes reexamination were granted by the PTO's central reexamination unit); Sterne & Quinn, *supra* note 3 ("[N]o one could have predicted . . . how broadly and rapidly the new challenges to the patentability of issued U.S. patents would become the standard defense tactic in U.S. patent litigation in all areas of technology . . . . Approximately 80% of the claims challenged in petitions are instituted for trial on at least one proposed ground of unpatentability . . . .").

Table 4: Institution Rates

Petitions with an institution decision:	823[28]
Percent of IPRs with at least 1 claim instituted:	84.0%
Percent of IPRs with at least 1 claim of a *unique* patent instituted:	86.3%
Instituted IPRs:	691
Percent of IPRs will *all* challenged claims instituted	74.0%
Percent of challenged claims instituted	88.3%

Table 5: By Tech Classification

	High-Tech.	Bio./Pharma./Chem.	Med. Device/Mech.
Share of All Petitions (Total No.)[29]	67.1% (657)	11.3% (111)	18.2% (178)
Petitions with an institution decision:	551	95	149
Percent of IPRs with at least 1 claim instituted:	83.8%	83.2%	82.6%
Instituted IPRs:	462	79	123
Percent of IPRs will *all* challenged claims instituted	73.4%	74.7%	75.6%
Percent of challenged claims instituted	86.5%	90.2%	92.9%

[28] In six IPRs, the patentee requested an adverse judgment that was granted prior to an institution decision.

[29] *Compare with* PTO IPX Data, *supra* note 7 (reporting that 45% of *inter partes* reexaminations challenged a patent directed to an "electrical" invention, 15% directed to a "chemical" invention, and 25% to a "mechanical" invention). Some "high-tech" patents can be challenged in an IPR *or* the "Transitional Program for Covered Business Method Patents" (CBM review), *see* Post of Scott A. McKeown to Patents Post-Grant Blog, Where Are All the Business Method Patent Challenges?, http://www.patentspostgrant.com/where-are-all-the-business-method-patent-challenges (Apr. 24, 2013) (discussing the tradeoffs between IPR and CBM review), which like IPR was created by the AIA and went into effect in 2012, *see* AIA § 18. Thus, were it not for the existence of CBM review, the share of patents challenged in IPRs that cover "high tech" inventions might be larger still.

Narrowing our focus further to IPRs with a decision on claim validity, we find that petitioners have also been quite successful before the PTAB on the merits of their challenges. As shown below in Table 6, among instituted IPRs with a final decision on the merits, the PTAB eliminated all *instituted* claims almost 78 percent of the time. Among the same group, the PTAB eliminated all claims *challenged* in the petition 65 percent of the time, giving petitioners a complete victory almost two-thirds of the time they pursued their IPRs to a final decision.

Unlike acceptance rates, which are similar for both *inter partes* review and reexamination, the rate at which petitioners succeed on the merits of their petitions is markedly different: *inter partes* reexaminations ended in complete victory for the petitioner just 31 percent of the time, less than half as often. Moreover, over 60 percent of *inter partes* reexaminations ended with patentees securing new, amended claims.[30] To date, the PTAB has granted just a single motion to amend—one that was both unopposed and filed by the U.S. itself.[31]

Table 6: Claim Invalidation Rates

IPRs with decision on merits:	160
All *instituted* claims invalid or disclaimed	77.5%
All *challenged* claims invalid or disclaimed	65%
Motion to amend granted	0.62%

Moreover, as rough as IPR has been for patentees to date, we find that it has been even tougher on non-practicing patentees. Table 7 below compares petitions challenging patents owned by NPEs and product-

[30] *See* PTO IPX Data, *supra* note 7 (reporting that in 61% of completed *inter partes* reexaminations the challenged patent survived with claim amendments).

[31] International Flavors & Fragrances Inc. v. U.S. Department of Agriculture, No. IPR2013-00124, Paper No. 12 (P.T.A.B. May 20, 2014), *available at* http://patentdocs.typepad.com/files/intl-flavors-fragrances-inc.-v.-u.s.a.-ipr2013-00124-paper-12-p.t.a.b.-may-20-2014.pdf; *see also* Post of Scott A. McKeown to Patents Post-Grant Blog, PTAB Grants First Motion to Amend in IPR, http://www.patentspostgrant.com/ptab-grants-first-motion-to-amend-in-ipr (May 22, 2014) ("[T]he motion was unopposed, and was essentially a settlement by amendment (challenger was satisfied that new claims were no longer a threat and simply walked away) . . . .").

producing companies. Overall, NPEs are respondents in about 48 percent of IPRs, a percentage that roughly matches the share of patent litigation filed by NPEs.[32] By comparison to challenged patents owned by product-producing companies, patents owned by NPEs are more likely to be challenged in an IPR that is instituted for at least one claim and, on average, have a higher percentage of challenged claims instituted. That said, in final decisions, NPE claims are less likely to be invalidated or disclaimed, a finding that roughly cancels out NPEs' greater per-claim institution rate. Ultimately it would seem that, in the PTAB's estimation to date, NPE-owned patents are more likely than product-company-owned patents to have suspect claims—but suspect claims in both types of patents are roughly equally likely to be deemed invalid.

Table 7: NPEs v. Product-Producing Companies

	NPEs	Prod. Cos.
Share of all IPRs:	48.3%	51.7%
Institution Rate:	88.7%	80%*
Among instituted IPRs, share instituting all challenged claims	77.0%	71.1%
Among instituted IPRs, share of claims instituted	90.8%	86.3%*
Among IPRs with decision on the merits, share invalidating all instituted claims	75.3%	78.1%

* $p <$ 0.01

Finally, turning to petitions pending alongside litigation in federal court, we find that IPR has thus far proven to be a successful means for accused infringers to halt patent suits filed against them. Table 8 below shows data for IPRs with parallel litigation. Overall, in 80 percent of

[32] *See* Sara Jeruss et al., *The America Invents Act 500: Effects of Patent Monetization Entities on US Litigation*, 11 DUKE L. & TECH. REV. 357, 365, 377 (2012) (finding, in a study of 100 patent suits filed each year from 2007 to 2011, that the percentage attributable to NPEs was roughly 22% in 2007, 27% in 2008, 33% in 2009, 30% in 2010, and 40% in 2011); Robin Feldman et al., *The AIA 500 Expanded: The Effects of Patent Monetization Entities*, UCLA J.L. & TECH., at *9, *55 (forthcoming) (expanding their prior study to find that NPEs filed roughly 59% of patent suits in 2012); Christopher A. Cotropia et al., *Unpacking Patent Assertion Entities*, MINN. L. REV., at *25 (forthcoming) (finding that NPEs filed roughly 50% of patent infringement claims in 2010 and 2012), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2346381.

IPRs, the challenged patent was also asserted in litigation between the petitioner and respondent.[33] Of patent suits proceeding in parallel with an instituted IPR between the same parties, a motion to stay was filed in over 76 percent. Overall, these cases were stayed (at least in part) 82 percent of the time, though rates varied considerably across districts. When a motion to stay was filed before *Markman* briefing, cases were stayed even more often: close to 84 percent of the time. Compared to *inter partes* reexamination—for which district courts stayed co-pending litigation less than half the time[34]—petitioning for *inter partes* review is much more likely to result in a stay of litigation and, thereby, save litigation costs and reduce a non-practicing patentees' hold-up power.[35]

[33] By comparison, almost 76% of *inter partes* reexaminations challenged a litigated patent. *See* PTO IPX Data, *supra* note 7.

[34] *See* Eric J. Rogers, *Ten Years of* Inter Partes *Patent Reexamination Appeals: An Empirical View*, 29 SANTA CLARA COMP. & HIGH TECH. L.J. 305, 320-21 (2012), *available at* http://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article= 1559& context= chtlj (collecting sources and concluding that overall "[m]otions to stay patent litigation until the conclusion of a reexam are granted about half of the time" and also that rates varied by district with the Northern District of California and the Eastern District of Texas granting motions more and less than average, respectively).

[35] Because non-practicing patentees do not sell products of their own, they cannot be countersued for infringement and, thus, can impose asymmetrical litigation costs on their opponents. *See, e.g.*, Brian J. Love, Testimony before the California Assembly Select Committee on High Technology informational hearing on Patent Assertion Entities (Oct. 30, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id= 2347138. As a result of this cost differential, NPEs can collect settlements that reflect the cost of defense in addition to the value of the patented invention and strength of the patentee's claims. *Id.* If the cost of defense is large enough, patent litigation may still be lucrative even when the patent-in-suit is weak and covers technology of little importance. *Id.*

Table 8: Co-Pending Litigation Stays

	Overall	D. Del.	N.D. Cal.	E.D. Tex.	C.D. Cal.
Suits co-pending an *instituted* IPR	249	48	31	32	11
No. with a motion to stay:[36]	190	36	26	19	9
No. with a decided motion:[37]	171	32	25	16	9
% granted:[38]	81.9%	81.2%	80%	56.2%	77.8%
No. with a decided motion filed before claim construction briefing	140	24	18	13	8
% granted:	83.6%	83.3%	77.8%	69.2%	87.5%

In fact, the relative filing dates of IPR petitions and co-pending patent suits suggests that administratively challenging a patent may also tend to reduce the number of times that patent will be asserted in the future. Among co-pending suits enforcing a patent challenged in a terminated IPR, roughly 85 percent were filed prior to the IPR petition.[39] In addition, over 10 percent of patents challenged in terminated IPRs have, to date, never been asserted in court. In short, IPR does not seem to encourage additional patent litigation and, for a substantial number of patents, it appears to act as a complete substitute for litigation.

That said, it is still too early to draw a firm conclusion about IPR's impact on the final outcome of co-pending patent suits between the petitioner and respondent. The vast majority of suits running in parallel with an IPR decided on the merits have, themselves, not yet terminated. Suits pending with IPRs invalidating claims of the asserted patent largely remain stayed pending appeal of the PTAB's decision to the Federal

[36] In some suits, parties filed multiple motions to stay. This row reports the percentage of suits with at least one motion.

[37] In most instances, the motion was not ruled upon because the case settled, or was stayed for a reason unrelated to *inter partes* review, before the court ruled on the motion. In a small number of ongoing cases, motions to stay remained pending at the time of publication.

[38] This row reports the percentage of suits in which at least one motion to stay was granted at least in part. *Compare* Wolf Greenfield, IP Strategy: Stays, Presentation to the AIPLA Post Grant Committee (June 12, 2014) (copy on file with the authors) (finding, in a sample that includes motions to stay filed prior to institution, a grant rate of 60% in the District of Delaware, 83% in the Northern District of California, and 58% in the Eastern District of Texas).

[39] In suits between the petitioner and respondent, 94% of co-pending suits were filed prior to the IPR petition. Among suits between the respondent and third-parties, about 80% of suits were filed first.

Circuit, and suits pending with IPRs that were not instituted are largely open and ongoing.[40] Thus, the true extent to which IPR simplifies patent litigation remains to be seen.

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Though it would be premature to make sweeping claims about *inter partes* review at this time, so far IPR appears to be a powerful shield for those accused of patent infringement (and those who anticipate they may soon be). Compared to requests for *inter partes* reexamination, petitions for *inter partes* review are currently granted at a similar rate, but once instituted result in the elimination of every challenged claim about twice as often, reach a final decision almost twice as quickly, and make accused infringers almost twice as likely to win motions to stay co-pending litigation. In its attempt to create a formidable avenue for administratively challenging issued patents, Congress appears to have hit the mark—but only time will tell for sure.

[40] Though many final decisions remain pending on appeal, history suggests that the affirmance rate is likely to be high. *See* Rogers, *Ten Years of Inter Partes Patent Reexamination Appeals: An Empirical View*, *supra* note 34, at 342-43 (noting that in 19 appeals of *inter partes* reexamination to the Federal Circuit, the court dismissed 14 and affirmed 5).

Appendix A: IPR Data by NPE Status and Tech Classification

	Overall	NPEs	Prod. Cos.	High Tech	Bio./Pharma./Chem.	Med. Device/Mech.	Other
Share of all IPRs (no.):	100% (979)	48.3% (473)	51.7% (506)	67.1% (657)	11.3% (111)	18.2% (178)	3.4% (33)
Institution rate (no.):	84.0% (691/823)	88.7% (331/373)	80% (360/450)*	83.8% (462/551)	83.2% (79/95)	82.6% (123/149)	96.4% (27/28)
Among instituted IPRs, share instituting all challenged claims (no.)	74.0% (511/691)	77.0% (255/331)	71.1% (256/360)	73.4% (339/462)	74.7% (59/79)	75.6% (93/123)	74.1% (20/27)
Among instituted IPRs, share of claims instituted (no.)	88.3% (9769/11059)	90.8% (4559/5020)	86.3% (5210/6039)*	86.5% (6339/7325)	90.2% (1185/1313)	92.9% (1742/1875)	92.1% (503/546)
Among IPRs with decision on the merits, share invalidating all instituted claims (no.)	77.5% (124/160)	75.3% (64/84)	78.1% (60/76)	72% (72/100)	87.0% (20/23)	93.1% (27/29)	62.5% (5/8)
Stay rate in suits co-pending instituted IPRs (no. suits w/ a decided motion)	81.9% (171)	85.5% (90)	77.8% (81)	82.9% (105)	58.3% (12)	85.7% (42)	83.3% (12)

* $p <$ 0.01

Appendix B: IPX vs. IPR

	Inter Partes Reexamination	*Inter Partes* Review
Total Petitions, as of Sept. 30, 2014:	1919	1841
Petitions per Month:	12.5	75.1
Average Duration to Final Decision (months)	36.0	14.9
Tech Breakdown:		
Electrical:	45.1%	67.1%
Chemical:	14.9%	11.3%
Mechanical:	25.5%	18.2%
Institution Rate	93.4%	84.0%
All (Instituted) Claims Invalidated	31.5%	78.8%
Amended Claims Added	60.9%	0.62%
Percent with Co-Pending Litigation	75.5%	78.8%
Grant Rate for Motions to Stay	~50%	81.9%