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THE U.S. INTERNATIONAL TRADE COMMISSION: AN EMPIRICAL STUDY OF SECTION 337 INVESTIGATIONS

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INTRODUCTION

The smartphone patent wars over the last decade have put a spotlight on a little-known federal agency: the U.S. International Trade Commission (ITC).¹ Originally a body for managing the federal system of trade tariffs, the ITC decides dozens of patent disputes a year, which is perhaps unexpected due to their authority over regulating unfair practices in importation.²

Policymakers have raised questions about this little-known agency in view of reports of so-called “patent trolls,” otherwise called non-practicing entities, who take advantage of the ITC, and more recently because of a widely publicized

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dispute involving the ITC and national security.³ These questions led to a bill titled the Advancing America’s Interests Act (AAIA), which was introduced in Congress to alter the ITC’s scope of authority over patents.⁴

There is a need to supplement anecdotal evidence of ITC abuse with a broader review of the ITC’s workload, to see what reforms would be useful and effective over the agency’s range of operations. This study is an empirical review of the ITC’s unfair importation investigations, primarily relating to

1. See, e.g., Timothy B. Lee, “ITC: How an Obscure Bureaucracy Makes the World Safe for Patent Trolls,” *Ars Technica*, Sept. 21, 2012. <https://arstechnica.com/tech-policy/2012/09/itc-how-an-obscure-bureaucracy-makes-the-world-safe-for-patent-trolls>.

2. “Budget Justification,” United States International Trade Commission, last accessed Oct. 21, 2021. https://www.usitc.gov/documents/fy_2022_congressional_budget_justification.pdf.

3. See, e.g., Lee. <https://arstechnica.com/tech-policy/2012/09/itc-how-an-obscure-bureaucracy-makes-the-world-safe-for-patent-trolls>; Joe Mullin, “It’s Time to Kick Patent Trolls out of the International Trade Commission,” Electronic Frontier Foundation, Oct. 29, 2020. <https://www.eff.org/deeplinks/2020/10/its-time-kick-patent-trolls-out-international-trade-commission>; Asa Fitch and Tripp Mickle, “Apple, Qualcomm Trade Blows in Long-Running Patent Fight,” *Wall Street Journal*, March 26, 2019. <https://www.wsj.com/articles/apple-violated-qualcomm-patent-u-s-trade-judge-rules-11553624866>.

4. H.R. 5184, Advancing America’s Interests Act (AAIA), 117th Congress (2021).

patents, over the last decade and a half. It looks at the nature of the parties involved, the connection between ITC investigations and domestic industries and the prevalence of non-practicing entities before the agency. The data supports the need for reforms to the ITC's patent investigation practice to curtail abuses, reforms that are found in the AAIA. But the data also supports reforms that go further, limiting the ITC's scope of authority to return it to the trade regulation agency it was intended to be rather than the general-purpose patent quasi-court that it has become.

BACKGROUND

Though it is often overlooked in discussions of patent policy, the ITC wields significant authority over patent disputes in the United States. The ITC arrived at that patent authority in a somewhat roundabout manner, and its exercise of the authority to adjudicate patent disputes has been a matter of controversy in recent years.

The U.S. International Trade Commission

Originally established in 1916 as the U.S. Tariff Commission, the U.S. International Trade Commission is an independent federal agency composed of six commissioners equally split between political parties.⁵ The commission has a variety of responsibilities regarding international trade policy, including preparation of research reports and maintaining the national schedule of tariffs.⁶ Its most significant responsibility is adjudication of allegations of unfair practices in importation.

The ITC's authority to adjudicate unfair trade practices derives from the Smoot-Hawley Tariff Act of 1930.⁷ That law, as it has been amended up to the present day, generally enables the ITC to deal with “[u]nfair methods of competition and unfair acts in the importation of articles. . . into the United States” that tend to suppress industries or monopolize trade within the United States.⁸ Where a violation is found, the ITC has powerful remedies at its disposal. The agency may exclude from importation those products deemed in violation of section 337 of the Tariff Act of 1930, impose fines on those who import or sell such products and seize or cause forfeiture of those products in some cases.⁹ Authority over patent disputes was not originally explicit in section 337, but derived instead from the argument that importation of patent-infringing products was unfair compe-

tion.¹⁰ Subsequent amendments to the statute gave the ITC explicit authority over importation of articles that “infringe a valid and enforceable United States patent.”¹¹

The statute also sets forth the prerequisites for obtaining an ITC remedy for patent infringement. In addition to finding that the imported articles infringe a patent, the ITC must find the existence of “an industry in the United States, relating to the articles protected by the patent” that “exists or is in the process of being established.”¹² A patent holder may satisfy this so-called “domestic industry” requirement by showing “significant investment in plant[s] and equipment; significant employment of labor or capital; or substantial investment in [the patent’s] exploitation, including engineering, research and development, or licensing.”¹³ Furthermore, the ITC may refuse to issue a remedy or limit any remedy for patent infringement if, in the ITC’s opinion, the remedy would be contrary to the public interest in view of four factors: “public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers.”¹⁴

Procedure for ITC adjudication of a patent dispute is something of a hybrid between judicial dispute resolution and federal agency practice. Upon receiving a complaint alleging importation of patent-infringing products, the ITC is required to institute an investigation, which it delegates to one of several administrative law judges (ALJs) on staff.¹⁵ The ALJ manages adjudication procedure, oversees discovery, takes evidence, holds hearings and ultimately makes findings after a trial in a decision called a “final initial determination” that addresses the merits of the patent infringement claim, the domestic industry requirement and perhaps the public interest factors.¹⁶ The six commissioners of the ITC then have the opportunity to review the ALJ’s determination, resulting in issuance of a “final determination.”¹⁷ If exclusion or other remedy is ordered, then the White House has 60 days to reconsider, after which the ITC’s order is given effect by federal customs officials.¹⁸

The ITC’s authority under section 337 has made it into one of the busiest patent tribunals in the United States. It adju-

5. 19 U.S.C. § 1330(a).

6. § 1332; “A Centennial History of the USITC,” United States International Trade Commission, November 2017, pp. 12–13. <https://www.usitc.gov/publications/other/pub4744.pdf>.

7. Smoot-Hawley Tariff Act of 1930, Pub. L. No. 71-361, sec. 337, 46 Stat. 590, p. 703.

8. Tariff Act of 1930 § 337(a)(1)(A), 19 U.S.C. § 1337 (2012).

9. Tariff Act § 337(d), (f), (i).

10. Smoot-Hawley Tariff Act sec. 337(a), 46 Stat. p. 703.

11. Tariff Act § 337(a)(1)(B).

12. *Ibid.* § 337(a)(2).

13. *Ibid.* § 337(a)(3).

14. *Ibid.* § 337(d)(1).

15. *Ibid.* § 337(b)(1); 19 C.F.R. § 210.3.

16. 19 C.F.R. § 210.42.

17. § 210.45(c).

18. Tariff Act § 337(d), (j).

dicates dozens of complaints per year and is second only to the District of Delaware in terms of the number of patent infringement trials it conducts.¹⁹ The agency's popularity as a patent dispute forum can be attributed to a number of factors: speedy timelines for resolution of investigations, powerful available remedies and arguably lower costs of litigation, among other things.²⁰

Concerns About the ITC's Patent Authority

Though its popularity as a patent adjudication forum is indisputable, policymakers and commentators have questioned or criticized the ITC's role in patent law from a number of fronts in recent years. Some of these criticisms are systemic and reach to the heart of the ITC's authority, while others are directed to particular instances of abuse and problematic behavior.

Systemic concerns with the ITC generally flow from the observation, made in a previous R Street policy study by Bill Watson, that the agency's patent authority is seemingly duplicative of federal courts, which have original jurisdiction over patent infringement.²¹ As Watson explains, the ITC's patent authority is not duplicative if the infringing entity is an overseas company outside the reach of federal courts, but today enough firms are international with a presence in the United States, such that the vast majority of patent infringement investigations in the ITC could have been resolved in courts.²² Furthermore, ITC decisions do not trigger the same rules of collateral estoppel and *res judicata* that ordinarily prevent federal adjudicators from reaching inconsistent judgments.²³ The duplicativeness of the ITC gives rise to a number of potential problems including conflicting judgments, inconsistencies in interpretation of patent law and increased costs of litigation for alleged patent infringers who must mount defenses before two different tribunals.²⁴

The theoretical concern of duplicativeness gives rise to practical problems around inconsistencies between the ITC and federal courts, which calls into question the propriety of the ITC's patent authority. For example, district courts deciding whether to issue an injunctive prohibition on a patent-infringing product must first consider the four-factor test enunciated in the Supreme Court's *eBay Inc. v. MercExchange, LLC* decision.²⁵ The ITC's exclusionary remedies are essentially injunctions, but the agency issues them without applying *eBay*.²⁶ The ITC is also not subject to the Federal Rules of Civil Procedure, so the agency can impose limits on briefing and argument beyond the federal courts' abilities, potentially preventing parties from fully fleshing out their cases.²⁷ And because it is a federal agency and not a court, the ITC is not subject to the Seventh Amendment and thus need not provide patent defendants with a jury trial, which they would be entitled to in federal court.²⁸

Consistent with other documented practices of forum shopping in patent cases, these inconsistencies between the ITC and federal district courts tend to favor patent holders who choose the venue of litigation.²⁹ As a result, the ITC is potentially an attractive forum particularly for those with weaker patent cases, who are perhaps more reliant on procedural advantages in order to bring successful cases. In particular, many policy experts including the ITC itself have worried about use of the ITC by non-practicing entities, namely firms that offer no products and services but only assert patents in hopes of extracting settlement payments or licensing revenues.³⁰ Non-practicing entities typically hold patents of questionable validity and value, often taking advantage of procedural inequities and costs to bring accused parties to pay for patent licenses, so asymmetries between the ITC and district courts would naturally be attractive to non-practicing entities.

It would seem that the domestic industry requirement would be a substantial barrier to non-practicing entities seeking to use the ITC, given that by definition non-practicing entities

19. Bill Watson, "The ITC in 2019: America's Administrative Patent Court," ITC Policy Project, Feb. 24, 2020. <https://www.itcpolicy.com/blog/2020/2/24/the-its-in-2019-america-administrative-patent-court>.

20. See, e.g., David A. Hickerson, "Is the International Trade Commission the Most Patent-Friendly Venue with a Complainant Success Rate near 90%?," Foley and Lardner LLP, April 24, 2018. <https://www.foley.com/en/insights/publications/2018/04/is-the-international-trade-commission-the-most-pat>.

21. Bill Watson, "Preserving the Role of the Courts Through ITC Patent Reform," *R Street Short No. 57*, March 2018. <https://www.rstreet.org/wp-content/uploads/2018/04/Final-Short-57.pdf>.

22. *Ibid.*, pp. 3-4.

23. Sapna Kumar, "The Other Patent Agency: Congressional Regulation of the ITC," *Florida Law Review* 61 (2009), p. 559. http://www.floridalawreview.com/wp-content/uploads/2010/01/Kumar_BOOK.pdf.

24. See, e.g., Watson, pp. 2-3. <https://www.rstreet.org/wp-content/uploads/2018/04/Final-Short-57.pdf>; Statement of Professor Fiona Scott Morton, Subcommittee on Courts, Intellectual Property, and the Internet of the House Committee on the Judiciary, "International Trade Commission Patent Litigation," 114th Congress, April 14, 2016, pp. 44-45. <https://www.govinfo.gov/content/pkg/CHRG-114hhrg99782/pdf/CHRG-114hhrg99782.pdf>.

25. *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006).

26. *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, p. 1359 (Fed. Cir. 2010).

27. See, e.g., Joseph Dorris et al., "ITC Litigation: How Discovery in the ITC Is Different from Federal Court," *JD Supra*, Aug. 4, 2020. <https://www.jdsupra.com/legalnews/itc-litigation-how-discovery-in-the-its-98784>.

28. Kumar, p. 534. http://www.floridalawreview.com/wp-content/uploads/2010/01/Kumar_BOOK.pdf.

29. Hickerson. <https://www.foley.com/en/insights/publications/2018/04/is-the-international-trade-commission-the-most-pat>; "Statement of Professor Fiona Scott Morton, p. 45. <https://www.govinfo.gov/content/pkg/CHRG-114hhrg99782/pdf/CHRG-114hhrg99782.pdf>.

30. Statement of Rep. Nadler, Subcommittee on Courts, Intellectual Property, and the Internet of the House Committee on the Judiciary, "International Trade Commission Patent Litigation," 114th Congress, April 14, 2016, pp. 3-4. <https://www.govinfo.gov/content/pkg/CHRG-114hhrg99782/pdf/CHRG-114hhrg99782.pdf>; Colleen V. Chien and Mark A. Lemley, "Patent Holdup, the ITC, and the Public Interest," *Cornell Law Review* 98:1 (2012), pp. 26-27. <https://scholarship.law.cornell.edu/cgi/viewcontent.cgi?article=3255&context=clr>.

do not manufacture or sell products, but rather only license their patents.³¹ However, those entities take advantage of a loophole that allows a patent holder to prove a domestic industry by “substantial investment in . . . licensing.”³² Furthermore, the ITC allows a non-practicing entity to prove a domestic industry via a third-party firm that has taken a patent license, and will compel the third party to provide the necessary evidence to make the non-practicing entity’s case.³³ Practitioners have criticized this “domestic industry by subpoena” practice as unduly burdensome on the firms that are unwillingly conscripted into the case.³⁴

Another concern with the ITC is its treatment of standard-essential patents. When a company proffers its patented technology for inclusion in a technical standard such as a cell phone protocol or video file format, the standard-setting organization in charge of the technical standard often requires the company to commit to offer licenses to its patents on a fair, reasonable and non-discriminatory basis (FRAND).³⁵ This so-called “FRAND” commitment has often been interpreted to preclude seeking injunctions under most circumstances, so insofar as ITC exclusion orders are much like injunctions, it would seem improper for a patent-holding standard contributor to seek an exclusion order in the ITC.³⁶

A final concern with the ITC goes to the basic reason for its existence. The ITC is intended to protect operating American firms from unfair foreign competition, and that rationale carries through many aspects of section 337 including the domestic industry and public interest requirements.³⁷ However, increasingly the ITC is resolving disputes that do not fit the pattern of protection of domestic industries, in par-

ticular disputes brought by foreign patent holders asserting against American firms.³⁸ This gives rise to at least two problems. First, it seems backwards for an agency charged with domestic industry protection to be ordering remedies that serve foreign interests and stymie domestic firms. Second, to the extent that the ITC ignores its unique international trade role, it acts more like a general-purpose patent tribunal, expounding upon the problems of duplicativeness as laid out above.

Proposed Reforms to the ITC

Concerns about abuses and improprieties with ITC patent investigations in recent years have led to congressional oversight hearings and to the introduction of several pieces of legislation. The most recent iteration is the AAIA, introduced in the House of Representatives this year by Reps. Del-Bene and Schweikert.³⁹

The AAIA approaches ITC reform from the perspective that the agency’s purpose is “protecting genuine domestic industries and to safeguard the public health and welfare and the United States economy (including competitive conditions).”⁴⁰ In particular, it is responsive to the concerns about non-practicing entities taking advantage of the ITC. Accordingly, it generally implements four reforms to section 337.

Two of these reforms relate to the domestic industry requirement. First, the bill cuts back on the use of patent licensing to satisfy the domestic industry requirement. Under the bill, investment in patent licensing will not be sufficient “unless the license leads to the adoption and development of articles that incorporate the patent, copyright, trademark, mask work, or design.”⁴¹ Second, the bill specifies that in order for an ITC complainant to rely on a third party licensee to prove a domestic industry, the licensee must voluntarily join the investigation as a co-complainant.⁴² Both of these reforms target the loopholes in the domestic industry requirement that non-practicing entities use, as described earlier.

The third reform of the bill relates to public interest factors. Currently, section 337 is worded such that the Commission orders remedial action “unless” it finds that such remedy should not be ordered in view of the public interest.⁴³ The AAIA changes the order of that logic, requiring the ITC to

31. Wei Wang, “Non-Practicing Complainants at the ITC: Domestic Industry or Not?,” *Berkeley Technology Law Journal* 27 (2012), p. 411. <https://www.jstor.org/stable/24121692>.

32. Tariff Act of 1930 § 337(a)(3), 19 U.S.C. § 1337 (2012); Wang, p. 409. <https://www.jstor.org/stable/24121692>.

33. Stephen E. Kabakoff and Andrew G. Strickland, “Leveraging Standing and Domestic Industry Activities of Third Parties in Patent-Based ITC Investigations,” *Intellectual Property and Technology Law Journal*, June 2014. <https://www.finnegan.com/en/insights/articles/leveraging-standing-and-domestic-industry-activities-of-third.html>.

34. See, e.g., Josh Landau, “International Trade, Not Interrupted Trade—Trolls and the ITC,” *Patent Progress*, June 30, 2017. <https://www.patentprogress.org/2017/06/30/trolls-itc>; Robert Maier, “Recently Introduced Bill Would Limit ITC Domestic Industry by Subpoena,” *Law Journal Newsletters*, November 2020. <https://www.lawjournal-newsletters.com/2020/11/01/recently-introduced-bill-would-limit-itc-domestic-industry-by-subpoena>.

35. See, e.g., Charles Duan, “Internet of Infringing Things: The Effect of Computer Interface Copyrights on Technology Standards,” *Rutgers Computer and Technology Law Journal* 45 (2019), pp. 24–26. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3303618.

36. See, e.g., *ibid.*, p. 27; *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, p. 877 (9th Cir. 2012).

37. See, e.g., Statement of Rep. Issa, Subcommittee on Courts, Intellectual Property, and the Internet of the House Committee on the Judiciary, “International Trade Commission Patent Litigation,” 114th Congress, April 14, 2016, pp. 1-2. <https://www.govinfo.gov/content/pkg/CHRG-114hhrg99782/pdf/CHRG-114hhrg99782.pdf>; Roslyn Layton, “The International Trade Commission Should Work as Intended, Not as Practiced,” *Forbes*, July 20, 2021. <https://www.forbes.com/sites/roslynlayton/2021/07/20/the-international-trade-commission-should-work-as-intended-not-as-practiced>.

38. See, e.g., Colleen Chien, “Patently Protectionist? An Empirical Analysis of Patent Cases at the International Trade Commission,” *William and Mary Law Review* 50:1 (2008), p. 94. <https://scholarship.law.wm.edu/wmlr/vol50/iss1/3>.

39. H.R. 5184.

40. *Ibid.*, p. 2.

41. *Ibid.*, sec. 3(a)(1)(C), § 337(a)(4).

42. *Ibid.*, sec. 3(a)(2)(A), § 337(b)(1).

43. See, e.g., Tariff Act of 1930 § 337(d)(1), 19 U.S.C. § 1337 (2012).

make a positive finding that a remedy “is in the interest of the public.”⁴⁴ Furthermore, the bill alters the language of several of the public interest factors. It replaces “competitive conditions in the United States economy” with “the United States economy (including competitive conditions),” and requires “like or directly competitive articles” under those factors to be produced “by the complainant and its licensees.”⁴⁵ Though subtle, these changes to the public interest factors are important because they force the ITC to broadly consider what consequences its exclusion orders could have on the public.

Finally, to ensure that these changes to section 337 are made effective and to minimize undue costs of litigation, the bill implements procedural reforms. The bill requires the ITC to conduct expedited review to determine any appropriate “dispositive issue,” and stays the rest of the investigation while that review is pending.⁴⁶ The purpose of this early disposition procedure is, in part, to allow domestic industry questions to be answered up front, before the parties to the investigation must undertake the costly work of patent infringement analysis. Second, the bill enables the ITC to decide public interest questions early and to terminate the case regardless of the merits if it finds the public interest sufficient to negate any remedy.⁴⁷ It also allows the ITC to terminate investigations without a decision if, for example, the parties settle.⁴⁸

METHODS

The primary source of data for this study was the ITC’s information service 337Info, which provides detailed information on section 337 investigations since 2008 in computer-readable format.⁴⁹ The information there, entered by Commission staff based on the official records of investigations, includes key dates, identities of parties, classification of the imported articles involved, and investigation outcomes in some cases.⁵⁰

Since the ITC conducts a number of different proceedings, records from 337Info were discarded, other than those used for determinations of violations of section 337. Extraneous records that the ITC itself indicated should be deleted were also discarded. The ITC’s data on the nationalities of complainants and respondents to investigations contained

a number of errors, which were corrected with a number of automated heuristic checks. The resulting dataset is described below as the “full ITC dataset.”

Outcomes of investigations can be determined partly from the ITC’s data. Where an investigation ends with a final determination finding a violation or no violation (generally, finding or not finding patent infringement), the ITC dataset categorizes those results. Each investigation record also indicates an investigation termination date, a date of a “non-final terminating initial determination,” and a current investigation status. Unfortunately, these records are occasionally inconsistent with each other: three investigations report being “pending before the Commission” despite having a date of termination. Since the entered dates are likely more accurate than the status text, they are given priority in determining investigation status. The meaning of “non-final terminating initial determination” is not immediately apparent and seemingly self-contradictory, but the ITC’s instructions suggest that those cases usually refer to investigations that end in settlement, and the number of cases with that outcome per year line up reasonably closely with the ITC’s data on settlements.⁵¹ There are also a small number of investigations with termination dates but no other information about their disposition; these cases appear to line up with the ITC’s data on complaints being withdrawn before final determination.⁵² These last two dispositions are characterized as “probably settled” and “probably withdrawn,” respectively.

The subject matter of imported articles under investigation was determined using the ITC’s classification of investigations according to the Harmonized Tariff Schedule (HTS).⁵³ The HTS is a numbered hierarchy of product types, with the first two digits indicating the chapter of the schedule, the first four digits being a broad class, and the full eight to ten-digit number specifically identifying certain products. The four-digit class generally provided sufficient specificity for analysis without subdividing categories too much. The HTS provides highly detailed descriptions of each four-digit class, but for purposes of readability, this study uses its own brief descriptions of each class. The brief descriptions are meant as an aid rather than an all-encompassing definition and are based on a qualitative review of cases within each class. For example, HTS class 8443 formally covers “printing machinery,” but it is described here as “printer toner/ink” because almost all the investigations in that class involved refill cartridges.

44. H.R. 5184, (a)(4)–(6), § 337(d)(1)–(f)(1).

45. *Ibid.*

46. *Ibid.*, sec. 3(a)(2)(B), § 337(b)(4)(A)–(B).

47. *Ibid.*, sec. 3(a)(3), § 337(c)(1)(B).

48. *Ibid.*, sec. 3(a)(3), § 337(c)(1)(A).

49. “337Info,” United States International Trade Commission, last accessed Sept. 14, 2021. <https://pubapps2.usitc.gov/337external>.

50. “337Info: Frequently Asked Questions,” United States International Trade Commission, September 2014, p. 2. https://www.usitc.gov/documents/337Info_FAQ.pdf; “337Info External Data Dictionary,” United States International Trade Commission, Sept. 12, 2014. https://www.usitc.gov/documents/337Info_ext_DataDictionary.pdf.

51. “337Info External Data Dictionary,” p. 2. https://www.usitc.gov/documents/337Info_ext_DataDictionary.pdf; “Section 337 Statistics: Settlement Rate Data,” United States International Trade Commission, last accessed Sept. 16, 2021, https://www.usitc.gov/intellectual_property/337_statistics_settlement_rate_data.htm.

52. “Section 337 Statistics: Settlement Rate Data.” https://www.usitc.gov/intellectual_property/337_statistics_settlement_rate_data.htm.

53. “Harmonized Tariff Schedule of the United States,” United States International Trade Commission, August 2021. <https://hts.usitc.gov/current>.

Additionally, R Street Institute manually reviewed complaints of investigations to identify particular features of interest. These features relate to the nature of the complainant's allegations of a domestic industry, whether the asserted patents were essential to a technical standard, and whether a general exclusion order was requested. Manual review was also performed to determine whether parallel district court litigation existed between the parties to the ITC investigation.

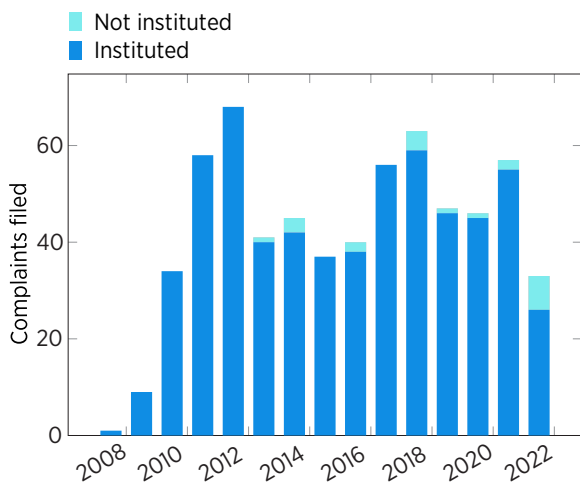
The manual review spanned investigations beginning from docket number 3,194 and comprised 227 investigations dated January 1, 2017 and later. This smaller set of investigations is described below as the "reviewed dataset." Compared to the full ITC dataset, the reviewed dataset includes more pending investigations (unsurprisingly, because newer investigations likely have not completed), but when pending investigations are excluded, the outcomes of investigations in the reviewed dataset do not differ greatly from those of the full dataset. Additionally, the most common subject matter of investigations in the reviewed dataset, based on HTS classifications, lined up closely with the most common subject matter in the full ITC dataset. These results suggest that the reviewed dataset is generally representative of the overall body of ITC investigations.

RESULTS

Overall Characteristics

The full ITC dataset provides a number of insights into the overall nature of ITC litigation. We look particularly at the number of investigations and parties to those investigations, as well as categories of products involved. Figure 1 shows the number of complaints filed with the ITC per year.

FIGURE 1: ITC INVESTIGATIONS BY YEAR

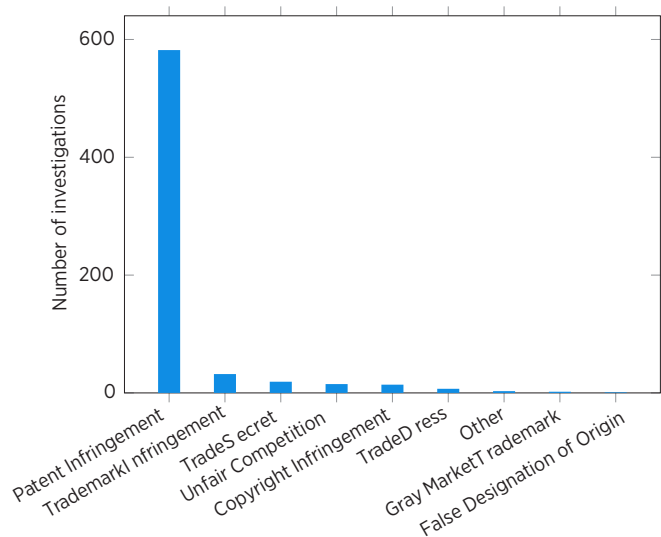


Sources: U.S. International Trade Commission, 337Info data.

Ignoring 2007–08 and the current year for which records are incomplete, Figure 1 shows that the annual rate of filing has been relatively even, at about 50 complaints per year. Nearly all filed complaints trigger an investigation, with the ITC declining to institute just 21 investigations (3.37 percent) since 2008.

Although the ITC can investigate a variety of unfair acts in importation, its workload is by far predominantly patents. Figure 2 shows the number of ITC investigations by the type of intellectual property or other unfair act asserted in the complaint. As seen in Figure 2, 91.7 percent of investigations relate to patents.

FIGURE 2: NUMBER OF ITC INVESTIGATIONS, BY UNFAIR ACT ALLEGED



Sources: U.S. International Trade Commission, 337Info data.

The most common HTS categories associated with investigations are shown in Table 1. The numbers do not add to 100 percent because some investigations fell into multiple categories.

TABLE 1: NUMBER OF ITC INVESTIGATIONS, BY HARMONIZED TARIFF SCHEDULE CATEGORIES

HTS CATEGORY	INVESTIGATIONS	AVG. RESPONDENTS
8443 Printer toner/ink	19 (3.0%)	14.2
8471 Computers	115 (18.1%)	5.2
8473 Computer parts	22 (3.5%)	10.0
8507 Batteries	10 (1.6%)	13.3
8512 Vehicle lighting and signaling equipment	11 (1.7%)	3.8
8517 Mobile phones	142 (22.4%)	4.2
8518 Microphones and speakers	15 (2.4%)	6.7
8519 Sound recording apparatus	17 (2.7%)	5.5
8521 Video recording apparatus	31 (4.9%)	5.4
8523 Digital storage media	20 (3.1%)	6.6
8525 Broadcasting transmission apparatus	48 (7.6%)	6.4
8526 Navigational apparatus	13 (2.0%)	7.0
8528 Monitors, projectors, televisions	66 (10.4%)	5.0
8529 Parts for television/radio	37 (5.8%)	4.8
8536 Electrical switches and protectors	10 (1.6%)	6.3
8541 Diodes, transistors, LEDs	42 (6.6%)	6.6
8542 Integrated circuits	68 (10.7%)	7.3
8543 Other electrical machines	26 (4.1%)	8.5
8703 Cars	13 (2.0%)	6.5
9018 Medical devices	22 (3.5%)	2.2
9019 Mechanical medical devices	9 (1.4%)	6.7
9031 Measuring instruments	10 (1.6%)	3.9
9403 Furniture	13 (2.0%)	6.0
9405 Lighting	14 (2.2%)	7.4
9503 Children's toys	10 (1.6%)	9.2
9504 Video game equipment	17 (2.7%)	5.5
9506 Exercise equipment	10 (1.6%)	7.4
Other	202 (31.8%)	6.9

Sources: U.S. International Trade Commission, 337Info data.

By far, the investigations listed in Table 1 predominantly relate to telephones and computers, which are complex technologies that frequently become the source of patent litigation. Nevertheless, the breadth of subject matter before the ITC is apparent from Table 1. Investigations involve anything from complex electronic technology to children’s toys and exercise equipment.

The number of respondents named in an investigation varied widely as well. While 78 investigations (12.3 percent) named only one respondent, others involved up to 116 of them. Generally, there were three reasons for naming multiple respondents in a particular investigation:

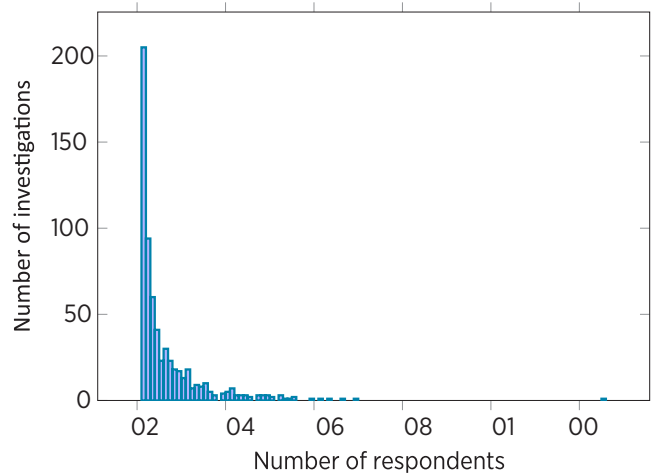
1. Multiple unrelated firms were being charged with infringement

2. A foreign importer was being charged along with its U.S. distributors
3. Parent and subsidiary corporations were being charged together

The third option arguably leads to an overcount of respondents, so in an attempt to overcome this, firm names were matched by similar words in our analysis. Specifically, for each investigation, respondents were matched together where they shared at least one common word in their names, excluding common corporate terms, geographic locations, product descriptions and other generic words. This matching is naturally imperfect and incomplete: for example, the Canadian firm “Research in Motion” would never be paired with its U.S. counterpart because all three of the words in its name are generic terms. Nevertheless, a review of several of the most commonly named respondents suggested that this procedure was reasonably accurate.

After consolidating similar-named firms for each investigation, the distribution of the number of named respondents is shown in Figure 3.

FIGURE 3: NUMBER OF INVESTIGATIONS WITH THE GIVEN NUMBER OF RESPONDENTS



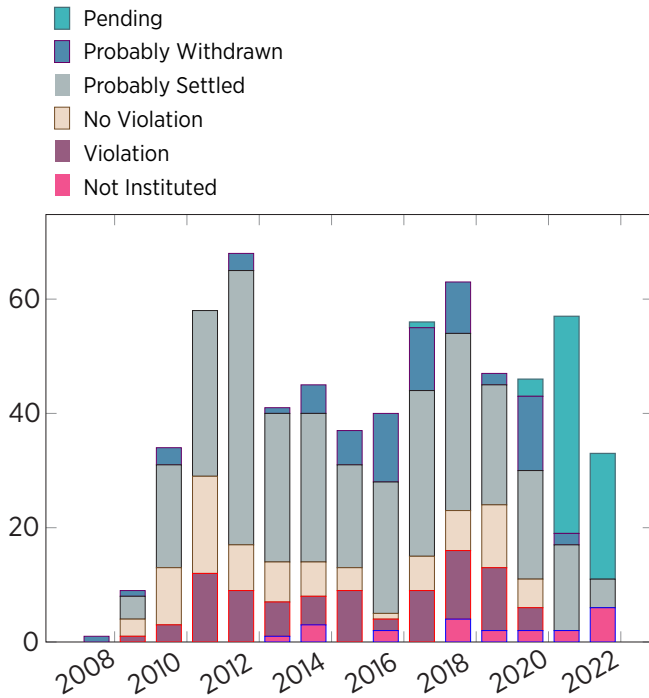
Sources: U.S. International Trade Commission, 337Info data.

Here, 299 investigations (47.1 percent) name two or fewer respondents, while 47 investigations (7.4 percent) name 20 or more. Notably, as seen in Table 1, the product categories in which the most respondents are named tend to be different from those with the most investigations, and those categories are less technologically complex: printing machinery (mostly toner and ink cartridges), computer parts, batteries and children’s toys.

Outcomes

Figure 4 shows dispositions of ITC investigations over time.

FIGURE 4: INVESTIGATIONS BY FILING YEAR AND OUTCOME



Sources: U.S. International Trade Commission, 337Info data.

The majority, 381 out of 571 completed investigations, appear to be settled or withdrawn. The ITC found a violation in 83 investigations (14.5 percent) and no violation in 85 (14.9 percent).

By subject matter, investigations where no violation was found correlated closely with the overall set of investigations: The top HTS classifications were 8542, 8471, 8517, 8528 and 8521, corresponding to integrated circuits, computers, phones, monitors and video recorders. By contrast, investigations where a violation was found did not correlate well. The top classifications among those investigations were 8517, 8443, 3926, 8525 and 4202, corresponding to phones, printing machinery, plastic articles, broadcast transmitters and bags. The alleged unfair acts also differed for investigations where a violation was found, as seen in Table 2. Consistent with handbags being more common subject matter among investigations where a violation was found, trademark and trade dress infringement are more common unfair acts alleged. Nevertheless, even patent complainants enjoyed high levels of success at the ITC, with a violation being found in about half of investigations seen to completion.

TABLE 2: NUMBER OF INVESTIGATIONS ALLEGING PARTICULAR UNFAIR ACTS, AND OUTCOMES

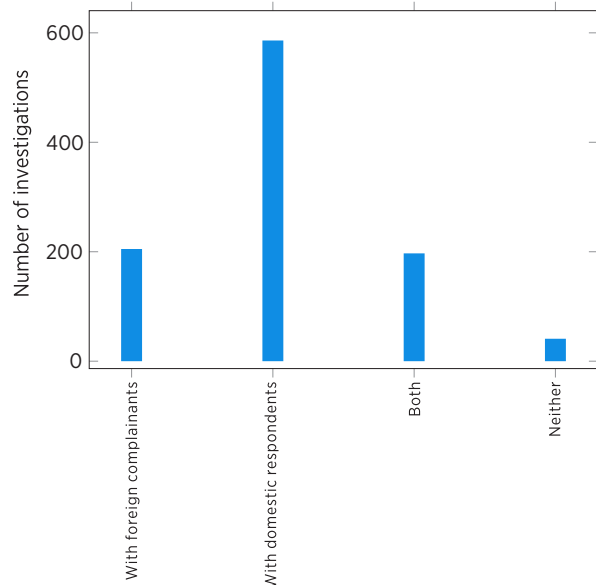
UNFAIR ACT ALLEGED	OVERALL	VIOLATION	NO VIOLATION
Patent Infringement	582	70	83
Trademark Infringement	32	11	0
Trade Secret	19	6	0
Unfair Competition	15	3	0
Copyright Infringement	14	5	2
Trade Dress	7	4	0
Other	3	1	0
Gray Market Trademark	2	1	0
False Designation of Origin	1	0	0

Sources: U.S. International Trade Commission, 337Info data.

Nationalities of Parties

Since the ITC is intended as a forum to protect U.S. industries from foreign importers unreachable through district court litigation, it ought to be dominated by investigations involving domestic complainants and foreign respondents. That is rarely the case. Among the 635 investigations in the full ITC dataset, 41 (6.5 percent) involved solely domestic complainants and foreign respondents. Overview statistics are given in Figure 5, and show that most ITC investigations involve at least one domestic respondent that could have been sued for infringement in a U.S. court.

FIGURE 5: NUMBER OF ITC INVESTIGATIONS, BY PARTY NATIONALITIES



Sources: U.S. International Trade Commission, 337Info data.

However, simply counting the nationalities of parties to investigations is an oversimplification. As noted above, domestic respondents may be subsidiaries of foreign parties, or they may be distributors of their products. In terms of figuring which ITC investigations are “duplicative,” that is, which ones could have been brought in U.S. district court, this distinction matters. If an ITC investigation names a foreign manufacturer and a U.S. distributor, then it is arguably unfair to say that the foreign manufacturer could have been sued in U.S. court—the distributor may be totally unrelated to the manufacturer, and patent law applies slightly differently between manufacturers and distributors.⁵⁴ Where the domestic respondent is a subsidiary of a foreign respondent, however, there is no reason why the foreign national could not be brought into federal court via its subsidiary, so ITC action is duplicative in such cases.

To identify these plainly duplicative investigations naming both foreign and domestic counterparts of a global firm, we matched domestic and foreign respondents with similar names as discussed above. After this matching, a large number of investigations remain that appear duplicative of district court litigation. In 306 investigations (48.2 percent), every foreign respondent could be matched with at least one domestic respondent, suggesting that all the respondents to the investigation could have been sued in district court. Investigations involving a foreign national and its domestic subsidiary were common, occurring in 346 investigations (54.5 percent).

The large number of seemingly duplicative ITC investigations based on respondent nationalities is consistent with counts of actual district court litigation occurring in tandem with ITC investigations. Of the 227 investigations in the reviewed dataset, 180 (79.3 percent) had a parallel district court case. Among the 47 investigations for which we were unable to identify a parallel district court case, only 15 investigations (31.9 percent) involved purely foreign respondents that would potentially have been out of reach of federal courts, and 8 investigations (17.0 percent) involved no purely foreign respondents at all, suggesting that jurisdictional reach was not a deciding factor in whether parties opted for the ITC over district courts.

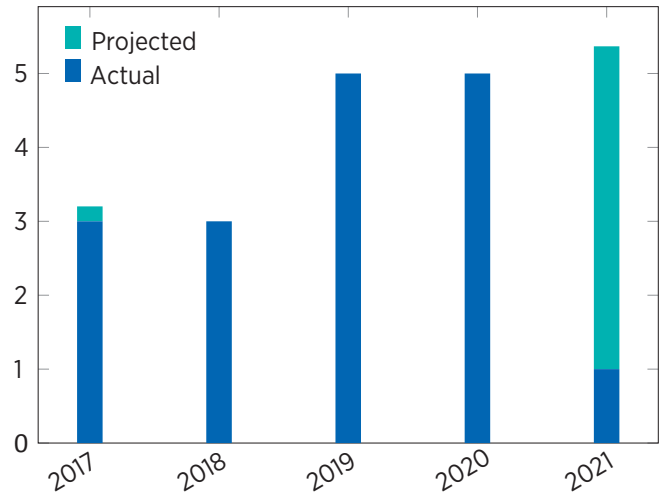
Domestic Industry Requirement

We used the reviewed dataset to determine how complainant firms satisfied the domestic industry requirement. Particular attention was given to the two controversial aspects of the domestic industry requirement described previously: assertion of a domestic industry based on patent licensing, and reliance on third-party subpoenas.

54. See, e.g., Dennis Crouch, “Customer Suit Exception and Stays for Judicial Economy,” Patently-O, March 25, 2020. <https://patentlyo.com/patent/2020/03/customer-exception-judicial.html>.

Of the 227 investigations reviewed, 17 (7.5 percent) claimed a domestic industry based on patent licensing. Although this number is small, it appears to be increasing as shown in Figure 6. The subject matter of these investigations is diverse, involving, for example, lighting technology, nutritional supplements and jump ropes. High-tech computer and smartphone devices are generally not the subject of investigations involving domestic industry by licensing.

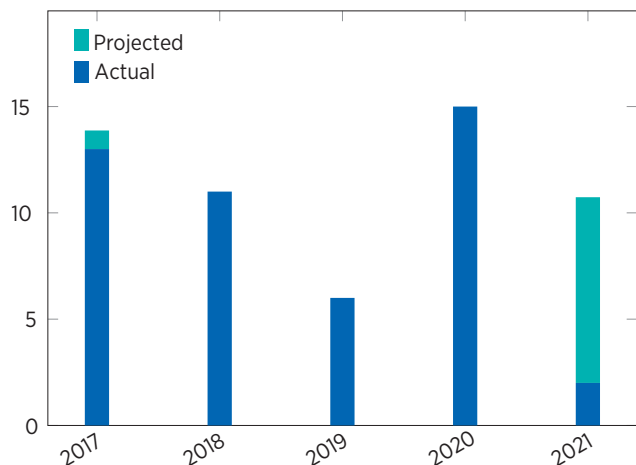
FIGURE 6: INVESTIGATIONS IN WHICH DOMESTIC INDUSTRY BY LICENSING WAS ASSERTED



Sources: U.S. International Trade Commission, 337Info data, R Street analysis.

Domestic industry allegations based on third-party subpoenas appeared more frequently, in 47 investigations (20.7 percent). A trend over time is unclear, as shown in Figure 7. Investigations involving domestic industry by subpoena skewed heavily toward consumer electronics, with 26 (55.3 percent) falling into HTS categories 8471 and 8517, covering computers and phones respectively. These investigations also tended to involve fewer respondents: 4.4 on average, compared to an average of 6.6 respondents in the reviewed dataset.

FIGURE 7: INVESTIGATIONS ALLEGING DOMESTIC INDUSTRY BY THIRD-PARTY LICENSEES



Sources: U.S. International Trade Commission, 337Info data, R Street analysis.

The discrepancy between technological product categories for investigations relying on licensing and third-party subpoenas, respectively, might be explained by changes in the ITC’s legal standards. In recent years, the ITC has taken steps to increase the difficulty of relying on licensing for proving a domestic industry.⁵⁵ As a result, more sophisticated patent holders (who likely correlate well with more complex technological patents) likely favor reliance on third-party licensees, rather than reliance on licensing activity.

Table 3 shows outcomes of non-pending investigations alleging domestic industry by a third-party licensee.

TABLE 3: OUTCOMES OF INVESTIGATIONS INVOLVING DOMESTIC INDUSTRY BY THIRD-PARTY LICENSEES

OUTCOME	OVERALL	DI BY LICENSEE
Not instituted	8 (4.6%)	1 (2.7%)
No violation found	23 (13.1%)	5 (13.5%)
Violation found	27 (15.4%)	3 (8.1%)
Probably settled	91 (52.0%)	23 (62.2%)
Probably withdrawn	26 (14.9%)	5 (13.5%)

Sources: U.S. International Trade Commission, 337Info data, R Street analysis.

Notably, violations are found in a smaller fraction of these investigations, but they appear to settle more frequently. That is consistent with the general understanding of non-practicing entities, which tend to be more interested in settlement payouts than full-blown trials.⁵⁶

55. Wang, p. 411. <https://www.jstor.org/stable/24121692>.

56. See, e.g., Mark A. Lemley and Douglas Melamed, “Missing the Forest for the Trolls,” *Columbia Law Review* 113:8 (2013), p. 2126. <https://columbialawreview.org/content/missing-the-forest-for-the-trolls>.

Standard-Essential Patents

Assertions of standard-essential patents at the ITC are controversial because the remedy available, an injunction-like exclusion order, is arguably impermissible under the licensing terms that bind most standard-essential patents. In the reviewed dataset, we identified nine investigations that involved a standard-essential patent. Unsurprisingly, these investigations tended to deal with high-tech subject matter: six fell in HTS class 8517 (phones), and others involved computer components and television set top boxes. Among these investigations, two found no violation, one found a violation, four likely settled and two are still pending.

Of these nine investigations, six of the complainants were large foreign firms with American subsidiaries. Of the remaining investigations involving primarily domestic complainants, two were brought by non-practicing entities (INVT SPE LLC and Evolved Wireless, LLC). Nearly every respondent to these investigations is an American firm or a foreign company being investigated in tandem with its domestic counterpart. The sole investigation involving a purely foreign entity is Investigation No. 337-TA-1240, in which the Dutch firm Koninklijke Philips filed a complaint against a variety of domestic and multinational companies including Quetcel Wireless Solutions based in China. Philips’ reliance on the ITC to reach a Chinese firm might have been justifiable were it not for the fact that, on the same day that Philips filed its complaint with the ITC, it also sued Quetcel in Delaware district court, where Quetcel has not disputed jurisdiction.

DISCUSSION

The ITC Rarely Serves a Unique Purpose, but it Duplicates Federal Courts

The data bears out the concern that the ITC is essentially acting as a substitute for federal district court patent litigation. Contrary to the intended purpose of the ITC as a mechanism for American firms to obtain relief against foreign importers outside the jurisdiction of federal courts, the vast majority of investigations involved either foreign complainants or domestic respondents. Indeed, the large number of multinational firms accused of patent infringement and the predominance of simultaneous litigation in district court and the ITC both suggest that patent holders are availing themselves of the ITC not out of necessity but as a strategic component of their litigation campaigns, essentially applying pressure with their litigation targets on two different fronts.

Duplicative litigation at the ITC is problematic for the reasons given previously, and also because it is wasteful spending. A survey of patent practitioners by the American Intellectual Property Law Association (AIPLA) puts the cost of litigating an ITC investigation at \$100,000–500,000 for

initial case management, and \$750,000–5.5 million through trial, depending on the complexity of the case.⁵⁷ If we conservatively assume most ITC investigations to involve \$1–10 million at risk, an ITC investigation would cost a party on average \$250,000 for initial case management, \$2,000,000 up to the start of trial, and \$4,000,000 through trial and completion of the investigation, according to the AIPLA survey. Of the 180 investigations with parallel district court litigation, 21 resulted in a finding of a violation. If we again make a conservative assumption that all remaining investigations never proceeded past case management, the duplicative costs of litigation were at least \$123,750,000 between 2017 and the start of 2021, or \$41,000,000 per year.

Non-Practicing Entities Make Up a Substantial Part of the ITC's Docket

Many of the concerns with the ITC relate to non-practicing entities, and the data shows that this is a substantial concern. Arguably, in any investigation in which evidence of a domestic industry is based on licensing or on a third-party subpoena, the complainant can be designated a “non-practicing entity” of a sort, because were the complainant practicing the patent, its products or services would be the domestic industry, and therefore it would be unnecessary to rely on licensing or third parties to prove that element of the case. It is particularly appropriate to infer the presence of a non-practicing entity in investigations involving third-party subpoenas, because in those cases the patent-holding complainant has so little connection to a domestic industry that it must use the force of law to compel others unwillingly to prove the existence of one.

For the 227 investigations starting in 2017, this study identified 54 investigations involving a non-practicing entity by the definition above, including 47 involving an allegation of a domestic industry by third-party subpoena. Notably, this number is substantially higher than the ITC's own count of 34 non-practicing entity investigations between 2017 and 2020.⁵⁸ While this difference can be explained by differing definitions in what a non-practicing entity is, the fact remains that almost a quarter of the ITC's docket involved investigations brought by parties that could not show a domestic industry of practicing their own patents.

Investigations Involved Products Sensitive to National Policy and the Public Interest

Today, computers and mobile phones play an especially important role in daily life, public participation and national policy.⁵⁹ Students and employees have relied on their devices for school and work especially during the pandemic, and supply chain shortages and cyberattacks have highlighted that information technology plays an important role in national security policy.⁶⁰

It is significant that a substantial portion of the ITC's docket involves exactly these important technologies. By HTS categories, 36.2 percent of investigations involved smartphones, computers, or other technological electronics components. Given the public importance of these technologies, multiple commentators and even one ALJ at the ITC find that the public interest factors under section 337 ought to play a significant role. Yet the agency rarely engages with its statutory public interest considerations, having rejected its exclusionary remedies only a handful of times based on the public interest. There thus appears to be a need for the agency to reinvigorate its application of the public interest factors in this substantial subset of its workload.

The Advancing America's Interests Act: An Important First Step

The above findings show the importance and value of the recently introduced ITC reform bill.⁶¹ As discussed earlier, the bill's two overarching objectives are to strengthen the domestic industry requirement by limiting the use of licensing and third-party subpoenas to prove a domestic industry, and to place more emphasis on the public interest factors.

In terms of domestic industry, the bill potentially has substantial economic value. Studies of other non-practicing entities suggest that those entities are likely to settle before trial. That is consistent with this study's finding that complainants relying on third-party licensee subpoenas tended to settle investigations. Focusing on the 47 investigations involving third-party subpoenas, it was also noted that those investigations tended to deal with consumer electronics. On the assumption that those investigations place \$10–25 million of products at risk and settle before trial, the AIPLA survey puts the median cost of litigation at \$4,000,000 per investigation, for a total of \$188,000,000. If the AAIA eliminates just half of these investigations, it would represent a savings of \$31,000,000 per year in litigation costs alone.

57. *Report of the Economic Survey 2019*, American Intellectual Property Law Association, last accessed Oct. 19, 2021, p. 52. <https://www.reginfo.gov/public/do/eoDownloadDocument?pubId=&eodoc=true&documentID=6898>.

58. “Section 337 Statistics: Number of Section 337 Investigations Brought by NPEs,” United States International Trade Commission, last accessed Sept. 16, 2021. https://www.usitc.gov/intellectual_property/337_statistics_number_section_337_investigations.htm.

59. See, e.g., Federal Communications Commission “Fourteenth Broadband Deployment Report,” Docket No. GN20-269, Jan. 19, 2021, p. 836. https://docs.fcc.gov/public/attachments/FCC-21-18A1_Rcd.pdf.

60. See, e.g., Tatyana Bolton et al., “Three Key Questions to Define ICT Supply Chain Security,” R Street Institute, Aug. 27, 2021. <https://www.rstreet.org/2021/08/27/three-key-questions-to-define-ict-supply-chain-security>.

61. H.R. 5184, Advancing America's Interests Act (AAIA), 117th Congress (2021).

Quantifying the bill's reforms to public interest factors is more difficult, as it is not clear how the ITC and the courts will interpret revised public interest factors and what effect front-loading the public interest analysis will have on the agency's behavior. As a result, the reforms of the bill would likely need to be accompanied by research and efforts to make clear the public harm of exclusion of critical information and communications technologies such as smartphones. Furthermore, the public costs of exclusion orders contrary to the public interest are presumably orders of magnitude larger than the costs of litigation, so an estimate of the bill's litigation cost savings are necessarily a dramatic undercount. It should suffice to say that for the 36.2 percent of ITC investigations involving smartphone or computer technologies, even a small effect of the public interest factors could have tremendous consequences for public welfare.

A starting point for increased use of the public interest factors under the bill could be with the handful of investigations involving standard-essential patents. The ITC and courts have struggled with the question of whether injunctive remedies like exclusion orders are permissible, as a matter of contract interpretation, when a standard-essential patent is encumbered by a FRAND commitment.⁶² The public interest factors perhaps give the ITC a different way to answer this question: Because the FRAND commitment is made in service of the public interest in robust competition, the ITC could rely on its public interest factors, in particular the factor regarding the U.S. economy and competitive conditions, as a reason for limiting any exclusionary remedy in an investigation involving standard-essential patents.⁶³

The reforms in the AAIA thus will likely have substantial benefits to manufacturing firms and the public, particularly by limiting non-practicing entities' access to the ITC and by enhancing consideration of the public interest. But there is more that can be done. The most pressing, systemic problem with the ITC's workload is duplicativeness between the agency and federal courts, and section 337 investigations that exemplify the truly unique role of the ITC are the rare exception rather than the norm. This overlap must be addressed as discussion of ITC reforms proceed.

CONCLUSION

The AAIA would implement important reforms to the ITC that would curtail many abuses and misuses of the agency's section 337 authority over patents, and lawmakers would

do well to consider it carefully in view of the findings of this study. At the same time, this study supports additional reforms that would limit duplicativeness in patent dispute resolution between the ITC and federal courts.

In general, it is hoped that the analysis in this paper contributes to further scrutiny of the ITC as a locus of patent policy. While the agency has often flown under the radar of Congress and commentators, this study shows that it has not gone unnoticed by those patent holders who would seek to stretch the agency's jurisdictional boundaries and take advantage of its authority. Ensuring a balanced system of innovation policy requires a careful eye on all parts of that system, and the ITC plays a significant role in that system today.

ABOUT THE AUTHOR

Charles Duan is a senior fellow in technology and innovation policy at the R Street Institute, where his research focuses on intellectual property policy and its effects on innovation. He is the author of *A Five Part Plan for Patent Reform* (2014).

62. See, e.g., Mark A. Lemley and Carl Shapiro, "A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents," *Berkeley Technology Law Journal* 28 (2013), pp. 1142-43. <https://faculty.haas.berkeley.edu/shapiro/frand.pdf>; J. Gregory Sidak, "The Meaning of FRAND, Part II: Injunctions," *Journal of Competition Law and Economics* 11:1 (2015), pp. 202-07. <https://academic.oup.com/jcle/article/11/1/201/793386?login=true>.

63. See, e.g., *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024, p. 1052 & n.22 (9th Cir. 2015).