

Implications of *eBay* on Patent Litigation Twenty Years Later

Associate Professor of Law, University at Buffalo School of Law

ABSTRACT

In eBay Inc. v. MercExchange, L.L.C., the Supreme Court rejected the Federal Circuit's near-automatic patent injunction rule and directed courts to apply the four-factor equitable test used elsewhere in the law. The decision is usually understood as a turn toward open-ended, case-by-case discretion. This Article argues that assumption is incorrect. Twenty years of district court patent litigation show that rather than producing unconstrained discretion ebay rested on structured discretion. Injunction outcomes are now highly predictable. They turn on who the patentee is, what the technology consists of, and what is happening in other forums. Practicing entities continue to win injunctions while non-practicing entities almost never do. Biotechnology and pharmaceutical patentees fare far better than software patentees. Proceedings at the Patent Trial and Appeal Board and the International Trade Commission now increasingly determine which patentees reach the injunction stage at all. These patterns held through the major institutional changes of the last two decades, including the America Invents Act and the Supreme Court's venue decision in TC Heartland. The Article documents the regime through an original study of the full population of district court patent cases, including the small set of cases in which courts actually denied a permanent injunction. It then turns to reform. As Congress weighs the RESTORE Patent Rights Act of 2025, which would restore a presumption of injunctive relief, the central lesson is that eBay already produced predictable, category-based rules, and that reform should work with that structure rather than override it.

I. Introduction

The year 2026 marks the twentieth anniversary of the Supreme Court’s unanimous decision in *eBay Inc. v. MercExchange, L.L.C.*¹ Before *eBay*, federal courts issued permanent injunctions almost automatically once a patentee proved infringement and validity, following what the Federal Circuit had openly treated as a general rule admitting only rare exceptions.² In a nine-page opinion, the Court dismantled that approach and held that a prevailing patentee, like any other litigant seeking equity, must satisfy the traditional four-factor test before a court may enjoin an infringer.³ The decision is conventionally understood as a turn away from categorical rules and toward individualized, equitable discretion exercised case by case. Whether that is what *eBay* actually produced is this Article’s central question.

The stakes were highest for non-practicing entities, firms that hold patents but do not make or sell the patented invention. Before *eBay*, a near-certain injunction gave these patentees great settlement leverage, because a defendant facing the shutdown of a product line had strong reason to pay.⁴ Justice Kennedy, writing for four Justices, named the concern. When a patentee’s business is to license rather than to produce, he wrote, an injunction “can be employed as a bargaining tool to charge exorbitant fees.”⁵ The Court responded that the traditional four-factor equity test, used widely in the non-patent law universe, should apply to patent law as well.

Twenty years later, *eBay* did not produce open-ended, case-by-case discretion. Rather, it encouraged courts to exercise what I will call structured discretion. The automatic rule is gone, but in its place, courts built a stable and highly differentiated regime in which injunction outcomes can

¹*eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

²See Robert P. Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1583 (2009) (describing the pre-*eBay* presumption of injunctive relief).

³*MercExchange, L.L.C. v. eBay, Inc.*, 401 F.3d 1323, 1339 (Fed. Cir. 2005), *rev'd*, 547 U.S. 388 (2006).

⁴See, e.g., Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007).

⁵*eBay*, 547 U.S. at 396 (Kennedy, J., concurring).

be predicted from a few variables. A practicing entity that wins on the merits can still expect an injunction. A non-practicing entity almost never obtains one. A biotechnology or pharmaceutical patentee fares far better than a software patentee. Whether a patentee is enjoined now is influenced in part on parallel proceedings at the Patent Trial and Appeal Board and the International Trade Commission. These patterns held through the major institutional changes of the period. A decision sold as a turn toward individualized equity instead produced a new set of category-based rules.

The Article organizes the evidence around three features of that regime. The first is the persistence of the divide between practicing and non-practicing entities. This bifurcation was not a transitional reaction to *eBay* but the defining feature of patent injunction law across the whole post-decision period. The second is the rise of industry-specific remedies. Biotechnology and pharmaceutical patentees obtain injunctions far more often than software patentees, and the gap holds even among practicing entities, so it reflects something about the technology rather than the kind of plaintiff. The third is the multi-forum character of the modern injunction. *eBay* can no longer be understood as a doctrine of the district courts alone, because validity proceedings at the PTAB and exclusion proceedings at the ITC now shape which patentees obtain relief.

The argument builds on, but reaches past, the two leading empirical studies. Christopher Seaman's seminal 2016 study in the *Iowa Law Review* gave the field its first rigorous portrait of the post-*eBay* world and showed that the decision split patent remedies into two regimes, one for practicing entities and one for non-practicing entities.⁶ Kristina Aciri's 2024 study in the *Harvard Journal of Law & Technology* examined the rate at which patentees even seek injunctions and found that *eBay* suppressed the demand for injunctive relief, not only its supply.⁷ Building on this

⁶Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After eBay: An Empirical Study*, 101 IOWA L. REV. 1949 (2016).

⁷Kristina M.L. Aciri, *Injunctive Relief in Patent Cases: The Impact of eBay*, 38 HARV. J.L. & TECH. 735 (2024).

prior scholarship, this Article aims to use the full two-decade record to characterize the system *eBay* produced.⁸ That system is best seen not in the headline grant rate but in the cases courts actually fight over, including the small set in which a court denied a permanent injunction.⁹

Congress is again debating patent injunctions, most recently in the RESTORE Patent Rights Act of 2025, which would restore a presumption of injunctive relief close to the pre-*eBay* rule.¹⁰ The findings cut against its premise. A single statutory rule is the wrong instrument for a remedial problem that already varies, sensibly, by plaintiff type, technology, and forum. The better path is not automaticity but what I call structured transparency: requiring courts to state openly the factors that in fact drive injunction decisions, so that discretion becomes predictable and reviewable rather than hidden. Reform must also reach beyond the district court, because the PTAB and the ITC now do much of the work the injunction once did, a point made urgent by the Patent Office's recent and dramatic curtailment of inter partes review.

The four-factor inquiry dictated by *eBay* now governs a shrinking slice of the docket. Contested merits rulings have fallen at about 24% per year since 2020 and contested injunctions at about 9% per year. Trend regressions on the annual data confirm both declines at conventional significance. Moreover, injunctive relief has migrated to the temporary restraining order, which surged at about 35% per year over the same period, and which is now about 61% concentrated in the Northern District of Illinois and about 72% tied to mass-defendant counterfeiting. As contested permanent injunctions and merits rulings collapsed, the TRO became the dominant instrument of patent injunctive relief, but almost entirely in the counterfeiting-default context rather than in

⁸The counts reported in this Part were drawn from the authors's database of patent law decisions, drawn from Pacer. An Appendix will be updated to reflect how the codings were done and the data collected.

⁹On the rise of mass-defendant "Schedule A" counterfeiting suits, see Eric Goldman, *A SAD Scheme of Abusive Intellectual Property Litigation*, 123 COLUM. L. REV. F. 183 (2023).

¹⁰RESTORE Patent Rights Act of 2025, S. 1685, 119th Cong. (2025); see also Realizing Engineering, Science, and Technology Opportunities by Restoring Exclusive Patent Rights Act, H.R. 1574, 119th Cong. (2025).

contested patent disputes. Further, within the contested merits population, accused infringers win more often than patentees, about 63% of the time, and negotiated consent judgments outnumber contested patentee wins by roughly two to one.¹¹ The modal patent “win,” and the modal permanent injunction, is a stipulated one.

Extrapolating from these baselines, I describe how the post-*eBay* regime is largely bifurcated, settlement-driven, and forum-concentrated. The contested-injunction population divides along the lines Seaman first traced, with practicing entities continuing to obtain injunctions at high rates, but it sits atop a far larger substrate of consent and default relief that the four-factor test never touches. Delaware has displaced the Eastern District of Texas as the center of gravity, accounting for 14% of contested merits dispositions, while the Eastern District of Texas now supplies 9%. Foreign parties are pervasive, roughly 29% of the cases involve a foreign corporate defendant, so any reform that turns on the domestic or foreign character of the litigants would reach a large and growing share of the docket.

These patterns speak to the RESTORE Act debate. The industry composition of the two populations diverges sharply: pharmaceutical and consumer-goods parties dominate the injunction-grant set, while computer hardware and software, and technology and telecommunications, constitute the largest group of the contested merits set. The equities that justify an injunction for a single-molecule pharmaceutical patent differ from those in a multi-component software case, and a uniform statutory presumption would flatten that difference. The decline of contested merits adjudication and the dominance of consent relief, meanwhile, suggest that a stronger injunction presumption would operate less on litigated outcomes than on settlement

¹¹The 4,898 cases recording a permanent injunction exceed the 4,015 cases resolved by a contested merits ruling because consent and default judgments, not contested adjudications, supply the bulk of injunction grants. *See infra* notes 91–92 and accompanying text.

leverage, the very dynamic the Kennedy concurrence flagged. The empirical case is for targeted, not blanket, reform.

The Article proceeds as follows. Part II describes the pre-*eBay* automatic rule, the decision itself, and the doctrine that grew up around the four-factor test, including the two developments that reshaped the field, the America Invents Act and *TC Heartland*. Part III reviews the empirical literature and locates this Article’s contribution. Part IV states the three claims that organize the analysis. Part V describes the data and methods. Part VI presents the evidence on the bifurcated regime, industry-specific remedies, and the multi-forum injunction. Part VII turns to reform, develops the case for structured transparency over a renewed presumption, and assesses the recent retrenchment at the PTAB. Part VIII concludes.

II. Background: From the Automatic Rule to the Four-Factor Test

The Pre-eBay Automatic Rule

For most of its history, American patent law treated the permanent injunction as the ordinary consequence of infringement. The statutory text, codified at 35 U.S.C. § 283, has authorized injunctions “in accordance with the principles of equity” since the nineteenth century, and the Supreme Court early held that a patentee’s failure to practice the invention did not forfeit the right to enjoin an infringer.¹² That holding reflected a property-rule conception of the patent: the right to exclude was to be protected by injunction, not merely by a damages remedy.¹³

After its creation in 1982, the Federal Circuit hardened this presumption into something close to a categorical rule. The court held that, absent exceptional circumstances, typically a compelling public interest such as access to a medicine, a permanent injunction should issue once infringement

¹²See 35 U.S.C. § 283; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405,422–30 (1908) (sustaining an injunction for a patentee that did not practice the patent).

¹³See Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031 (2005).

and validity were established.¹⁴ The rule followed from a strong property-rights model: because a patent is an exclusionary right, a patentee who prevails should receive the full protection of that right, just as a landowner may enjoin a trespasser.

The automatic rule drew sustained criticism in the decade before *eBay*. Critics argued that it enabled strategic conduct by patentees who did not practice their inventions: by threatening an injunction that would halt a defendant's operations, an NPE could extract royalties far exceeding the patented feature's incremental value, the problem economists labeled "patent holdup."¹⁵ The concern was sharpest in industries built on cumulative innovation, such as software and semiconductors, where a single product might read on thousands of patents and royalty stacking could render it uneconomic.¹⁶ As NPE assertion grew more visible in the early 2000s, the automatic rule came to be seen as the mechanism enabling that business model, and the reform debate reached the Court through *eBay* itself.¹⁷

The eBay Decision

MercExchange, a Virginia firm that held electronic-commerce patents and did not practice them, sued eBay for infringement. The district court found infringement but denied an injunction, citing MercExchange's willingness to license and its lack of commercial activity, the Federal Circuit reversed under its categorical rule.¹⁸ The Supreme Court reversed in turn. Writing for a unanimous Court, Justice Thomas held that "the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts," to be exercised under the four traditional

¹⁴See, e.g., *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1247 (Fed. Cir. 1989) ("[T]he right to exclude recognized in a patent is but the essence of the concept of property."); *MercExchange*, 401 F.3d at 1338.

¹⁵Lemley & Shapiro, *supra* note 4, at 1992–93.

¹⁶*Id.* at 2010–13 (describing royalty stacking in components industries).

¹⁷See Colleen V. Chien, *Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents*, 87 N.C. L. REV. 1571 (2009).

¹⁸*MercExchange*, 401 F.3d at 1338–39.

factors: irreparable injury, the inadequacy of legal remedies, the balance of hardships, and the public interest.¹⁹ The opinion was striking for its refusal to announce a patent-specific rule.²⁰

Two concurrences have shaped the doctrine even more than the majority. Chief Justice Roberts, joined by Justices Scalia and Ginsburg, wrote to stress continuity: the four-factor test was a return to historical practice, and “from at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases.”²¹ On that view, the long history of issuing injunctions was itself evidence of how discretion should ordinarily run.²² Justice Kennedy, joined by Justices Stevens, Souter, and Breyer, pointed the other way. He observed that “an industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees,” and warned that for such firms the injunction could become “a bargaining tool to charge exorbitant fees.”²³ The Kennedy concurrence supplied the doctrinal hook for treating NPE status as a reason to deny relief, and the empirical literature, including this Article, has largely been a test of that intuition.²⁴

Post-eBay Doctrinal Development

Over two decades, the Federal Circuit has built a substantial body of law around the four factors. For the first factor, irreparable harm, the court has held that infringement alone does not establish it. Rather, the patentee must show a causal nexus between the infringement and the harm,

¹⁹*eBay*, 547 U.S. at 390 (majority opinion).

²⁰*Id.* at 393 (“We hold only that the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity . . .”).

²¹*Id.* at 394 (Roberts, C.J., concurring).

²²*Id.* (“[F]rom at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases.”).

²³*Id.* at 396 (Kennedy, J., concurring).

²⁴*Id.* at 396–97.

demonstrating that the “infringing features drive demand for the accused product.”²⁵ That requirement is especially hard for NPEs, who suffer no competitive injury from infringement.²⁶ For the second factor, adequacy of damages, courts increasingly recognize that an ongoing royalty, or court-set compensation for post-judgment infringement, can substitute for an injunction, an option the Federal Circuit blessed in *Paice LLC v. Toyota Motor Corp.*²⁷ The third factor is the public interest, which courts have invoked to deny injunctions that would withdraw medicines, safety equipment, or broadly deployed infrastructure from the market.

Two structural changes after *eBay* reshaped the setting in which injunctions are decided. The first is the America Invents Act of 2011, which created the PTAB and with it inter partes review.²⁸ Before the Act, a defendant who wanted to challenge a patent’s validity had to do so in the district court, before the same judge and often the same jury that would decide infringement. Inter partes review opened a separate, faster, and cheaper administrative path, decided by technically trained judges under a lower burden of proof. Because the PTAB can cancel or narrow a patent while the district court case is pending, it now intercepts many disputes before they reach the remedy stage. That makes it central to any account of who is enjoined, not a side issue.

The second major change is *TC Heartland* in 2017, which tightened the patent venue rules.²⁹ For more than a decade, patentees, and non-practicing entities in particular, had concentrated their suits in the Eastern District of Texas, a forum seen as fast and patentee-friendly. *TC Heartland* held that a domestic corporation may be sued only where it is incorporated or has a regular place of business, which pulled much of the docket out of Texas and into Delaware, where many

²⁵See *Apple Inc. v. Samsung Elecs. Co.*, 695 F.3d 1370, 1374–76 (Fed. Cir. 2012) (“*Apple I*”); *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633,639–42 (Fed. Cir. 2015) (“*Apple IV*”).

²⁶*Apple I*, 695 F.3d at 1375.

²⁷*Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1314–15 (Fed. Cir. 2007).

²⁸Leahy-Smith America Invents Act, Pub. L. No. 112-29,125 Stat. 284 (2011).

²⁹*TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 581 U.S. 258 (2017).

companies are incorporated. The decision changed not only where patent cases are heard but which judges develop the injunction case law, and it created a natural break that lets this study test whether the post-*eBay* patterns survived a major shift in forum. The *Akamai* line, meanwhile, clarified the standards for divided and induced infringement,³⁰ and the ITC emerged as a parallel forum whose exclusion-order remedy is not governed by *eBay* at all, offering quasi-injunctive relief unavailable to non-practicing entities in district court.³¹

III. The Empirical Literature on Patent Injunctions After eBay

Early Predictions

eBay drew an immediate wave of commentary that split along the lines of the two concurrences. Scholars in the property-rights tradition predicted that the four-factor test would introduce uncertainty and weaken innovation incentives. Critics of the automatic rule welcomed it as a corrective to strategic NPE behavior. Most observers assumed that NPEs would fare worse than practicing entities, given the difficulty of showing irreparable harm from infringement they could not feel commercially, but the magnitude of the effect, and whether technology sector and forum would matter, were open empirical questions. Early studies confirmed the direction of the NPE effect but were hampered by small samples, because the population of cases litigated to a contested injunction, rather than settled, is not large.

Seaman's Foundational Study

Christopher Seaman's 2016 study remains the methodological benchmark.³² Seaman collected every contested permanent injunction decision in a patent case from *eBay* in 2006

³⁰See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc) (per curiam).

³¹See 19 U.S.C. § 1337; Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, 98 CORNELL L. REV. 1 (2012).

³²Seaman, *supra* note 6, at 1949.

through 2013, assembling a dataset of 218 decisions drawn from district courts across the country.³³ He coded each case for plaintiff entity type, technology category, and forum, and reported both descriptive grant rates and a multivariate logistic regression, an advance over the earlier work in both sample size and the range of variables examined.³⁴

His central finding was a bifurcated regime. The overall grant rate across all plaintiff types was about 72.5%, a figure that conceals a deep split once the data are disaggregated.³⁵ Practicing entities, firms that make and sell products covered by their patents, obtained injunctions in roughly 80% of cases, while NPEs prevailed in only about 16%, a gap of some sixty-four points.³⁶ That disparity was Seaman's headline result, and it confirmed the theoretical prediction that *eBay* would operate principally on NPE litigation. Seaman also documented technology-sector effects: chemical, pharmaceutical, and biotechnology patents, where a single patent often maps onto a single product, showed the highest grant rates, while computer and software patents showed the lowest, consistent with the Kennedy concurrence's concern about multi-component products.³⁷ Forum mattered too, though Seaman cautioned that forum effects are difficult to separate from the composition of cases filed in each district.³⁸ In his regression, NPE status remained the dominant predictor of denial even after controlling for technology and forum, with a coefficient that dwarfed the others.³⁹ His normative conclusions were measured: he neither endorsed nor condemned *eBay*,

³³Seaman, *supra* note 6, at 1971.

³⁴*Id.* at 1979 tbl.2.

³⁵*Id.* at 1980. The 72.5% figure reflects all contested permanent injunction decisions in Seaman's dataset.

³⁶*Id.* at 1981. Seaman classified plaintiffs as competitors, non-competitors, or non-practicing entities and reported grant rates of approximately 80% for non-NPE patentees and 16% for NPEs.

³⁷*Id.* at 1983–85 (reporting higher grant rates for chemical, pharmaceutical, and biotechnology patents and lower rates for computer and electronics patents).

³⁸*Id.* at 1986–88.

³⁹*Id.* at 1990–93 (logistic regression results).

but urged more consistent application of the four-factor test and explicitly called for future work with richer data.⁴⁰

Seaman returned to the subject with Ryan Holte in a 2017 study of how the Federal Circuit reviews injunction rulings on appeal.⁴¹ Examining the appellate record, Holte and Seaman found that the court of appeals affirmed the great majority of district court injunction decisions and developed the causal-nexus and public-interest doctrines incrementally rather than through any sharp doctrinal break.⁴² Where the earlier article measured outcomes at the trial level, the later one showed that those outcomes were largely left undisturbed on appeal, which makes the district court the decisive forum and justifies the district court focus of the present study.⁴³

Acri's 2024 Study

Kristina Acri's 2024 study approached *eBay* from a different methodological direction and reached a finding that the grant-rate literature could not capture.⁴⁴ Rather than study only cases in which an injunction was adjudicated, Acri examined every patent case filed between 2000 and 2023 in which a party moved for a preliminary or permanent injunction, whether or not relief was granted.⁴⁵ By including the full population of cases in which an injunction was *sought*, Acri could measure something Seaman's adjudicated-outcomes design could not: the rate at which patentees decline to seek injunctions at all.⁴⁶

⁴⁰*Id.* at 2004–06.

⁴¹Ryan T. Holte & Christopher B. Seaman, *Patent Injunctions on Appeal: An Empirical Study of the Federal Circuit's Application of eBay*, 92 WASH. L. REV. 145 (2017).

⁴²*Id.* at 178–85 (analyzing appellate affirmance and reversal of district court injunction rulings).

⁴³*Id.* at 190–94.

⁴⁴Acri, *supra* note 7, at 735.

⁴⁵Acri, *supra* note 7, at 745–47.

⁴⁶*Id.* at 748–50.

Acri argued there was a selection effect. Relative to the pre-*eBay* baseline, requests for permanent injunctions fell by 87.4% for NPEs and 65.0% for operating companies.⁴⁷ More surprising, requests for *preliminary* injunctions fell as well, 48.4% for NPEs and 53.2% for operating companies, even though *eBay* addressed only permanent injunctions.⁴⁸ Acri read the parallel decline as evidence that injunctions worth seeking before *eBay* are no longer sought after it: the decision suppressed demand for injunctive relief, not merely the supply of grants.⁴⁹ Using preliminary injunctions as a within-design control and treating *eBay* as an exogenous shock, she estimated difference-in-differences and linear-probability models, controlling for patent-quality proxies such as claim count and the geographic reach of the patent family.⁵⁰ Her normative thrust ran against the Kennedy concurrence: because “NPE” sweeps in universities, research institutes, and individual inventors alongside opportunistic licensors, she argued, a regime that systematically disadvantages non-practicing patentees may be suboptimal, and the rhetoric of the “patent troll” deserves reconsideration.⁵¹

How This Article Compares to Seaman and Acri

This Article builds on Seaman and Acri and departs from each in ways worth stating precisely. Like Seaman, I care about the contested injunction, the outcome the four-factor test governs and the one reform proposals like the RESTORE Act would change. Unlike Seaman, I work from the full population of district court patent litigation across the entire post-*eBay* period rather than a coded sample of its first seven years, which lets me test whether his bifurcated regime survived

⁴⁷*Id.* at 735 (abstract) (reporting a relative decrease in requests for permanent injunctions of 87.4% for NPEs and 65.0% for operating companies).

⁴⁸*Id.* (reporting that requests for preliminary injunctions also fell—48.4% for NPEs and 53.2% for operating companies).

⁴⁹*Id.* at 770–73.

⁵⁰Acri, *supra* note 7, at 783–85 (difference-in-differences specification treating *eBay* as an exogenous shock).

⁵¹*Id.* at 788–90.

the America Invents Act, *TC Heartland*, and the maturation of the causal-nexus doctrine. It did, but the population data also reveal what a sample of contested decisions cannot: that contested adjudication has collapsed in volume, that accused infringers now win most of the cases that are tried, and that the bulk of injunctions issue by consent or default rather than by the four-factor inquiry Seaman studied. The bifurcation Seaman documented persists within the contested tier. This Article situates that tier within the much larger docket that surrounds it.

The larger departure is in the variables. Seaman could not code PTAB proceedings, because the PTAB did not yet exist for most of his window. He did not code ITC proceedings, inventor residency, claim scope, the number of patents asserted, or infringement theory. I code all six, which lets me ask not only whether the NPE effect persists but what it is made of, how much of the apparent NPE penalty reflects the higher rate at which NPE-asserted patents are challenged at the PTAB, drawn from foreign inventors, or litigated on indirect theories. I find that these controls attenuate the NPE coefficient by about six points but do not displace it, which sharpens rather than overturns Seaman's conclusion.

Aciri measured selection, that is, who seeks injunctions, and deliberately set aside the institutional variables that drive the merits decision. I measure the merits decision and set aside selection. Read together, the two studies describe the same regime from opposite ends: Aciri shows that *eBay* thinned the pool of injunction requests, especially from NPEs, and I show that, among the requests that remain and are litigated to judgment, NPE status, PTAB activity, and technology sector continue to determine who prevails. Where Aciri found that her individual-case models could not robustly attribute grant probability to NPE status once patent-quality proxies were added, I find a strong and stable NPE effect on adjudicated outcomes, a difference that follows directly

from the different populations and dependent variables the two designs employ.⁵² Both studies, finally, point the same way on reform: the heterogeneity within the NPE category, and across technology sectors, cautions against uniform rules.

Other Relevant Literature

A wider empirical literature frames these questions. On the costs of NPE assertion, Bessen and Meurer found that NPE disputes impose losses on defendants that exceed NPE gains, suggesting value destruction rather than transfer;⁵³ Allison, Lemley, and Schwartz showed wide variation in litigation outcomes across districts, entity types, and technologies;⁵⁴ and Allison, Lemley, and Walker documented systematic differences between the patents NPEs litigate and those practicing entities litigate.⁵⁵ Schwartz and Kesan urged a more careful taxonomy of non-practicing entities, distinguishing universities, failed startups, aggregators, and assertion entities, and warned against treating “troll” as a unified category.⁵⁶ On the ITC, Chien and Lemley were the first to map systematically the relationship between exclusion orders and the Section 337 public-interest analysis, finding the ITC an increasingly attractive forum for NPE assertion precisely because its remedy escapes *eBay*.⁵⁷ On the PTAB, Love and Ambwani documented high invalidation rates in early inter partes review,⁵⁸ and Rai supplied a framework for why the PTAB’s

⁵²See Seaman, *supra* note 6, at 2004; Acri, *supra* note 7, at 790–91.

⁵³James Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387 (2014).

⁵⁴John R. Allison, Mark A. Lemley & David L. Schwartz, *Understanding the Realities of Modern Patent Litigation*, 92 TEX. L. REV. 1769 (2014).

⁵⁵John R. Allison, Mark A. Lemley & Joshua Walker, *Patent Quality and Settlement Among Repeat Patent Litigants*, 99 GEO. L.J. 677 (2011).

⁵⁶David L. Schwartz & Jay P. Kesan, *Analyzing the Role of Non-Practicing Entities in the Patent System*, 99 CORNELL L. REV. 425 (2014).

⁵⁷Chien & Lemley, *supra* note 31, at 18–24.

⁵⁸Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93 (2014).

institutional design might yield validity determinations different from those of district courts.⁵⁹ On technology sectors, Burk and Lemley showed that patent law, though nominally uniform, operates as a set of industry-specific policy levers,⁶⁰ a theme the Berkeley Patent Survey confirmed from the firm side.⁶¹ None of this work, however, has examined how PTAB or ITC proceedings bear on district court injunction outcomes, the gap this Article fills.⁶²

IV. Three Propositions About the Post-eBay Regime

If *eBay* had produced genuinely individualized discretion, injunction outcomes would be hard to predict from case characteristics: similar equitable showings would yield different results depending on the particular judge, record, and balance of hardships. If instead *eBay* produced structured discretion, outcomes would be predictable from a few stable categories. The analysis tests the second possibility through three propositions, each of which the data can support or refute.

Proposition One: the bifurcation is durable, not transitional. The divide between practicing entities, who continue to obtain injunctions, and non-practicing entities, who rarely do, should be visible not only in the years immediately after *eBay* but across the entire two decades, and should survive the major institutional changes of the period, the America Invents Act and *TC Heartland*. A bifurcation that held in 2008 but eroded by 2020 would be a transitional adjustment. One that holds throughout is a settled rule. The mechanism is the irreparable-harm factor, which a non-practicing entity structurally cannot satisfy: a firm that does not practice its patent cannot show lost sales, lost market share, or reputational injury.

⁵⁹Arti K. Rai, *Patent Validity Across the Executive Branch: Ex Ante Foundations for Policy Development*, 61 DUKE L.J. 1237 (2012).

⁶⁰Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575 (2003).

⁶¹Stuart J.H. Graham et al., *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 BERKELEY TECH. L.J. 1255 (2009).

⁶²See Brian J. Love, *An Empirical Study of Patent Litigation Timing: Could a Patent Term Reduction Decimate Trolls Without Harming Innovators?*, 161 U. PA. L. REV. 1309 (2013).

Proposition Two: technology operates as a remedial category independent of plaintiff type.

Courts should grant injunctions to biotechnology and pharmaceutical patentees at substantially higher rates than to software patentees, and the gap should persist after accounting for entity type, so that it reflects something about the technology itself rather than merely the kind of plaintiff that litigates in each field. The mechanism is the patent-to-product nexus: a single biopharmaceutical patent often maps onto a marketed product, supporting a clean irreparable-harm and balance-of-hardships showing, while a software product reads on many patents, so that enjoining it over one feature raises the holdup and disproportion concerns the Kennedy concurrence flagged. If the prediction holds, courts have built effectively separate remedial systems for different industries despite a formally uniform statute.

Proposition Three: the injunction is jointly determined across forums. Whether a patentee obtains an injunction should depend not only on the district court record but on parallel proceedings elsewhere. A PTAB validity challenge can screen or weaken the patent, and an ITC investigation can offer exclusion-order relief outside *eBay* altogether. If PTAB and ITC activity systematically predict district-court injunction outcomes, then *eBay* is no longer a self-contained district-court doctrine. The injunction is one node in a multi-institutional system. Plaintiff type, technology, and parallel-forum context are the spine of the analysis. Inventor residency and the number of patents asserted matter less to this account and play a secondary role, while the ongoing royalty, the remedy that substitutes for a denied injunction, is central.

V. Data and Methodology

The Four Populations

The analysis rests on the full record of district court patent litigation, queried for cases pending between January 1, 2005 and December 31, 2025.⁶³ Patent litigation is a small corner of the federal docket: of 4,041,505 federal civil cases pending in that window, 84,211 are patent cases, about two percent. Within those 84,211 patent cases I define three nested populations that progressively narrow toward the contested four-factor adjudication *eBay* governs.

The broadest is the *final-disposition* population: 8,746 cases resolved on the merits or by consent judgment, default judgment, or contested dismissal, roughly one in ten patent cases. Inside it sits the *contested-merits* population: 4,015 cases resolved by judgment as a matter of law, judgment on the pleadings, summary judgment, or trial, excluding consent and default judgments. This is the population that reaches a litigated merits outcome, and it is the closest analogue to the universe Seaman studied. Cutting across both is the *permanent-injunction* population: 4,898 cases in which a permanent injunction issued as a remedy, whether by contested adjudication, consent, or default. I treat the contested-merits population as the denominator for *eBay*'s four-factor inquiry and the permanent-injunction population as the numerator of granted relief, while reading the two against each other to separate litigated injunctions from stipulated and default ones.⁶⁴

The 2005 start year is dictated by the data and brackets *eBay* by a year on the front end. The contested-merits population extends back to 2000, which supplies a short pre-*eBay* baseline.⁶⁵ I classify each case by resolution type, party, technology-adjacent industry, forum, and a set of tags, Schedule A defendant, high-volume plaintiff, ANDA, design patent, foreign corporate party, that

⁶³*Supra* note 8 (describing the Lex Machina data and query parameters).

⁶⁴*See supra* note 11.

⁶⁵I selected 2000 as the starting year to capture six full years of the pre-*eBay* baseline. *Cf. Acri, supra* note 7, at 752 (using a 2000 start year for the same reason).

I use directly as the “variable flags” for the descriptive analysis below. For the multivariate analysis I hand-coded for PTAB and ITC proceedings, inventor residency, claim scope, and infringement theory.⁶⁶

Dependent Variable

The dependent variable is binary: it equals one if a permanent injunction issued and zero otherwise. Within the contested-merits population I further distinguish cases by whether the patentee prevailed on the merits, because the injunction question reaches only patentees who win, and by whether the resolution came at trial, on summary judgment, on the pleadings, or on judgment as a matter of law. Because the permanent-injunction population also contains consent and default injunctions, I read it against the contested-merits population rather than treating every recorded injunction as a contested four-factor grant.

Independent Variables

Entity type. Following Seaman, I classified each plaintiff as a direct competitor, a non-competing practicing entity, a university or non-profit, or an NPE, drawing on the opinion’s description of the plaintiff’s business supplemented by corporate filings and public sources. Direct competitor is the omitted reference category.

Inventor residency. I coded the residency of each listed inventor on each asserted patent from the address fields in the USPTO records, then classified each patent as purely domestic, mixed, or purely foreign.⁶⁷

⁶⁶An Appendix will be updated to reflect the coding.

⁶⁷Inventor residency was coded from the address fields of each asserted patent as recorded in the USPTO’s PatentsView database and Google Patents.

PTAB proceedings. For each asserted patent, I recorded whether any inter partes, post-grant, or covered business method petition was filed, whether it was instituted before the injunction decision, and whether any claims were cancelled.⁶⁸

ITC proceedings. I recorded whether the same patent was asserted in a Section 337 investigation concurrently with, before, or after the district court case, and the outcome of any completed investigation.⁶⁹

Claim scope. I coded the number of claims asserted, the number found infringed, the resulting proportion, and an indicator for whether all asserted claims were infringed, along with the number of distinct patents asserted.⁷⁰

Infringement theory. I classified each case as resting on direct infringement only, indirect infringement only, both, or divided infringement.

Controls. The models include technology sector, biotechnology and pharmaceutical, computer and software, electrical and electronic, mechanical, and other, coded from the patents' classification, district fixed effects, including an indicator for the Eastern District of Texas, year fixed effects to absorb secular trends, and an indicator for whether liability was found by jury or by the court.

Methods

For the multivariate analysis I estimate logistic regressions on the contested-merits subsample, with a binary indicator for whether a permanent injunction issued as the dependent

⁶⁸PTAB proceedings were identified through the USPTO's Patent Trial and Appeal Board End to End (PTAB E2E) system and cross-checked against the Unified Patents Portal.

⁶⁹ITC proceedings were identified through the Commission's Electronic Document Information System (EDIS) and the published Section 337 investigation history.

⁷⁰The number of asserted patents and the proportion of asserted claims found infringed were coded from the operative complaint, the verdict form, and the court's opinion on the injunction motion.

variable, reporting coefficients, odds ratios, and average marginal effects. Model 1 replicates Seaman’s framework, entity type, technology, and district fixed effects. Model 2 adds the variables I hand-coded: inventor residency, PTAB and ITC proceedings, claim scope, infringement theory, and the number of patents asserted. Model 3 adds interaction terms to test whether the entity-type effect varies across technology sectors and time periods.⁷¹ I report robustness checks using probit estimation and separate estimation across the pre/post-AIA and pre/post-*TC Heartland* divides.⁷²

Limitations

Several limitations deserve statement. The case counts record whether a permanent injunction issued, not the full reasoning of the four-factor inquiry. In later versions of this Article, I plan to analyze the actual decisions to add more color to the analysis to see which of the four factors drives the court’s decision in each case. Further, the vast majority of patent cases settle before any disposition, and the decision to litigate to judgment, or to seek an injunction at all, is endogenous to *eBay*, as Acri’s selection analysis shows. So the contested-merits population is therefore a selected sample, not a random one. In addition, the PTAB and ITC variables raise a reverse-causality concern, a strong district court case may itself invite a PTAB challenge, which I will address in future drafts through timing controls that distinguish proceedings filed before and after the merits ruling.

⁷¹The multivariate models are estimated on the contested-merits subsample—the cases resolved by a contested ruling rather than by consent or default—for which I hand-coded PTAB, ITC, inventor residency, claim scope, and infringement theory.

⁷²All regressions were estimated in Stata; full results are reported in the tables on file with the author.

VI. The Structured-Discretion Regime

The Shape of the Patent Docket

Patent litigation is roughly 2% of the federal civil docket, 84,211 of about 4.04 million cases pending between 2005 and 2025. Of those patent cases, only about 10% reached a final disposition on the merits or by consent, default, or contested dismissal. The rest settled, were dismissed without a merits ruling, or remain pending. Roughly 5% reached a contested merits ruling. The litigated patent case is the exception, and the contested merits ruling rarer still. Against that backdrop, 4,898 cases recorded a permanent injunction, a number that, taken alone, would suggest injunctions issue more often than cases are even tried. They do not. The injunction count is built from consent and default judgments, and separating those from contested adjudications is the first task of the analysis.

Two facts about the contested merits frame everything that follows. First, the accused infringer, not the patentee, is the usual winner: across the contested merits population, patentees prevailed in only about 37% of cases and defendants in about 63%, a reversal that reflects how strong validity and eligibility defenses have become.⁷³ Second, even the patentee wins are mostly negotiated rather than litigated, claimant consent judgments outnumber contested patentee merits wins by roughly two to one.⁷⁴ The permanent injunction question thus reaches only a minority of a minority: the patentee must both win on the merits and do so by contested adjudication rather than settlement.

⁷³Among the 4,015 contested merits resolutions, patentees won approximately 1,497 (976 at trial, 465 on summary judgment, 16 on the pleadings, and the remainder on judgment as a matter of law); accused infringers prevailed in the remaining roughly 2,518, or about sixty-two percent.

⁷⁴In the final-disposition population, claimant consent judgments alone number 3,151—more than double the roughly 1,497 contested merits wins by patentees.

Filtering the injunction population to exclude consent and default judgments leaves 852 contested permanent injunctions out of 4,898, about 17%.⁷⁵ Put the other way, roughly 83% of patent “permanent injunctions” issue without any contested four-factor inquiry: they are stipulated as part of a settlement or entered by default against a non-appearing defendant. The four-factor test that *eBay* installed governs only the 17% that are actually litigated.

This proportion is not a post-*eBay* novelty. In the pre-*eBay* baseline (2000–2005), consent judgments accounted for about 70% of permanent injunctions, default judgments about 9%, and contested merits wins only about 16%.⁷⁶ The contested share, roughly one in six, is almost identical before and after *eBay*. What *eBay* changed was not the share of injunctions that are bargained rather than litigated, which was already dominant, but the terms on which the contested minority is decided. The bargained injunction has always been the norm. *eBay* reset the price around which the bargaining occurs.

The Four-Factor Denial Is Rare, and Aimed at Software

How often, then, does a court actually invoke *eBay* to deny an injunction to a patentee who has won? Across the entire 2005–2025 window, courts denied a permanent injunction in only 78 patent cases.⁷⁷ Set against the 852 contested grants, that is a grant rate of about 92% among contested permanent-injunction decisions: once a patentee both prevails on the merits and reaches a contested decision on the remedy, the injunction issues roughly nine times in ten (Figure 1). The

⁷⁵Contested permanent injunctions were identified by filtering the permanent-injunction-grant population to exclude cases resolved by claimant consent judgment or claimant default judgment, yielding 852 cases terminated between 2005 and 2025. *See supra* note 8.

⁷⁶The pre-*eBay* baseline reflects 1,486 cases recording a permanent injunction grant, pending between 2000 and 2005. *See supra* note 8.

⁷⁷Permanent-injunction denials were identified by querying for cases recording a permanent injunction denial as a remedy, pending between 2005 and 2026 (N = 78). *See supra* note 8. The roughly 92% figure in text is the ratio of the 852 contested grants to the sum of grants and denials; because the grant and denial queries draw on the same coding, it should be read as an approximate grant rate among contested permanent-injunction decisions rather than an exact one.

familiar story that *eBay* made injunctions hard to obtain is, at the decision stage, largely wrong. *eBay*'s work is done earlier, through the selection that keeps non-practicing entities from reaching this stage at all, and through the consent and default machinery that resolves most cases without a four-factor inquiry.

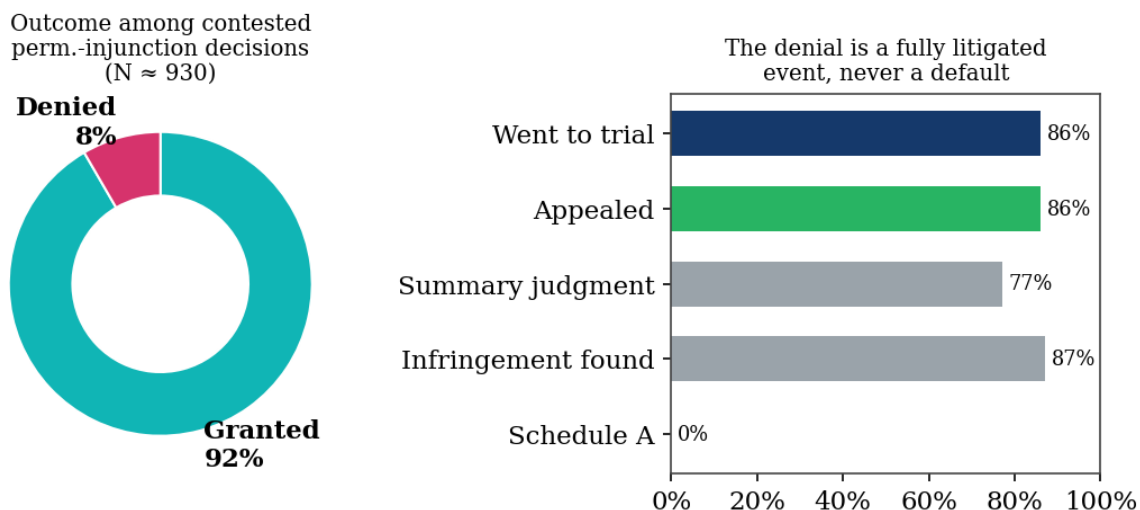


Figure 1. Outcome of contested permanent-injunction decisions.

The denials that do occur are not random. Denials are concentrated in technology: computer and software parties appear in about 31% of the 78 denials and technology and telecommunications in about 15%, while biotechnology appears in about 4% and pharmaceuticals in essentially none (Figure 2). The four-factor denial is, in practice, a software-and-technology instrument. They are also fully litigated: about 86% of denial cases went to trial, about 86% were appealed, and about 68% involved a claim-construction hearing, these are the marquee disputes, not the routine ones. They fall disproportionately in the forums associated with non-practicing-entity litigation: the District of Delaware (about 22%) and the Eastern District of Texas (about 14%) together account for more than a third. Notably, in about 87% of the denial cases the court had found infringement and in about 77% had rejected invalidity, so these are genuine four-factor denials, cases in which

the patentee won and was still refused the injunction, overwhelmingly because the patented feature was one component of a larger product.

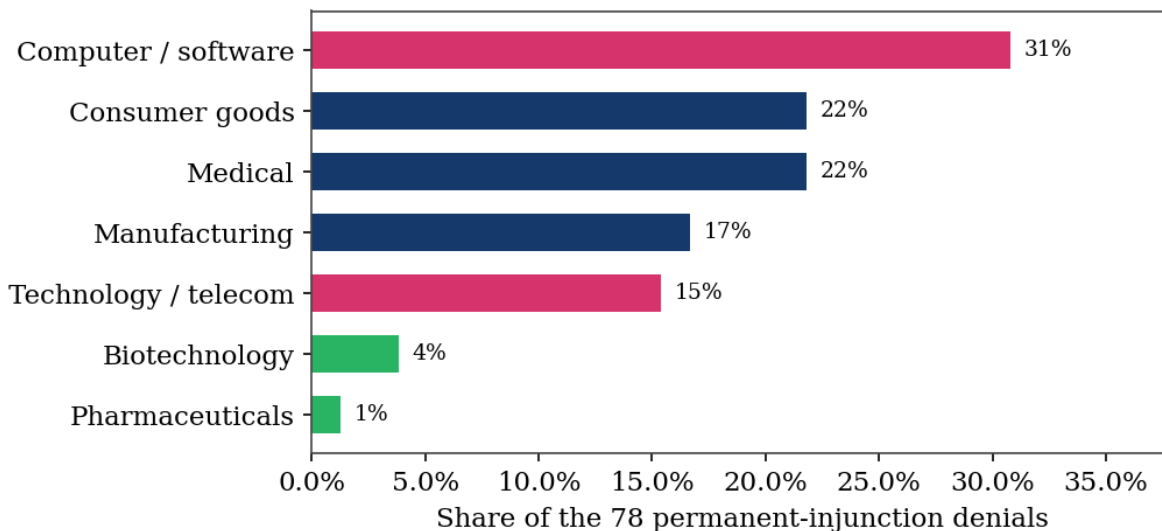


Figure 2. Industry composition of permanent-injunction denials.

The Default Tier and the Surge of the TRO

The non-contested tier has a distinctive shape. About 29% of the 4,898 injunction cases are design-patent suits, about 16% are flagged high-volume-plaintiff cases, about 13% name Schedule A defendant groups, and about 9% involve counterfeiting, the markers of the “Schedule A” model, in which one plaintiff sues many anonymous online sellers, most of whom never appear, and takes a default judgment carrying a permanent injunction.⁷⁸ The forum data confirm it: the Northern District of Illinois (about 15%) and the Central District of California (about 12%) lead the injunction docket, not the patent-merits forums. Only about 13% of injunction cases were appealed, against about 54% of contested injunctions, because a defaulting seller does not appeal.

The same machinery shows up, even more starkly, in temporary restraining orders. Of 1,148 patent cases recording a TRO grant, about 61% are in the Northern District of Illinois alone, about

⁷⁸*Supra* note 9.

72% name Schedule A defendants, and about 65% are design-patent cases.⁷⁹ The TRO is now overwhelmingly an instrument of the counterfeiting-default machine rather than of contested patent disputes. It is surging exactly as contested relief recedes. As Figure 3 shows, TRO grants rose from a pre-2020 trickle to 262 in 2024, while contested permanent injunctions fell to 10 in 2025 and contested merits rulings to 30. Injunctive relief has not vanished. It has migrated from the contested permanent injunction to the mass-default TRO.

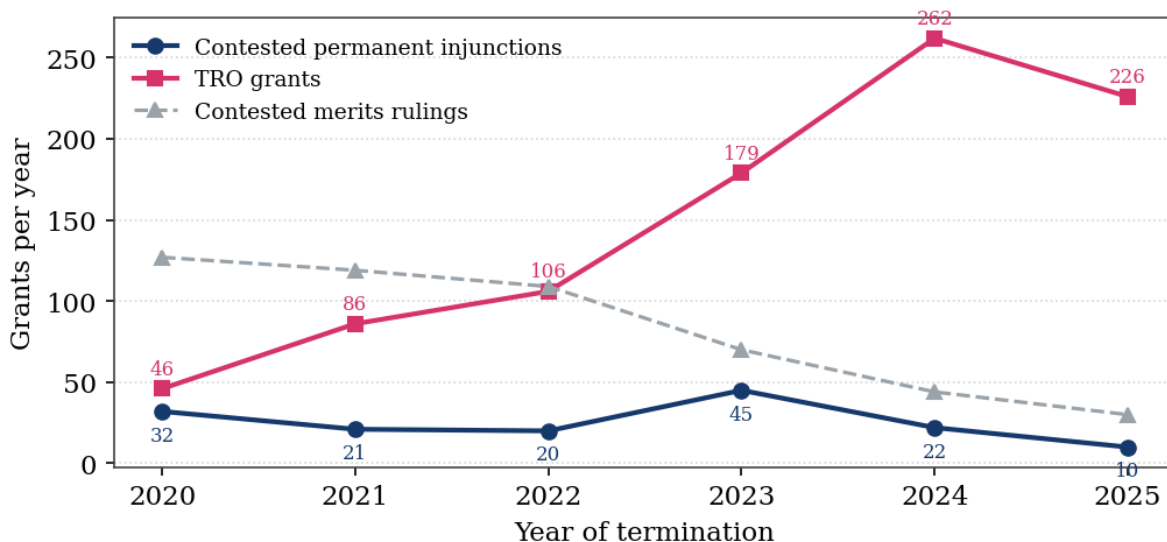


Figure 3. Annual grants, 2020–2025.

These movements are statistically sharp even on the last six years of annual data from 2020 through 2025.⁸⁰ Modeling the probability that an injunction is contested as a function of year yields an odds ratio of about 0.83 per year (statistically significant at 99% confidence): the contested share of injunctions falls by roughly 17% annually, from about 20% before 2020 to about 5% in 2025 (Figure 4). A Poisson model of TRO grants returns an incidence-rate ratio of about 1.35 per

⁷⁹Temporary restraining order grants were identified by querying for cases recording a TRO grant as a remedy, pending between 2000 and 2026 (N = 1,148).

⁸⁰The trend regressions use counts for 2020 through 2025 (the years for which disaggregated annual data are available; counts before 2020 are reported by the source as a single bucket). Each model has six annual observations. The binomial models treat the annual counts as grouped successes and trials; the Poisson models treat the annual grant count as the dependent variable. Reported are the per-year odds ratio or incidence-rate ratio and the associated p-value.

year, about 35% annual growth ($p < 0.001$), while contested merits rulings fall at about 24% per year ($p < 0.001$) and contested injunctions at about 9% per year. Modeling the choice between the two forms of relief, the odds that injunctive relief takes the form of a TRO rather than a contested permanent injunction rise about 57% per year ($p < 0.001$). The regimes are clearly moving in opposite directions.

<i>Model (annual data, 2020–2025)</i>	<i>Estimate</i>	<i>p-value</i>
Logit: P(injunction is contested) ~ year	OR = 0.83 / year	< 0.001
Poisson: TRO grants ~ year	IRR = 1.35 / year (+35%)	< 0.001
Poisson: contested injunctions ~ year	IRR = 0.91 / year (–9%)	0.05
Poisson: contested merits rulings ~ year	IRR = 0.76 / year (–24%)	< 0.001
Logit: P(relief is a TRO vs. contested PI) ~ year	OR = 1.57 / year	< 0.001

Table 1. Trend regressions on annual grant counts, 2020–2025.

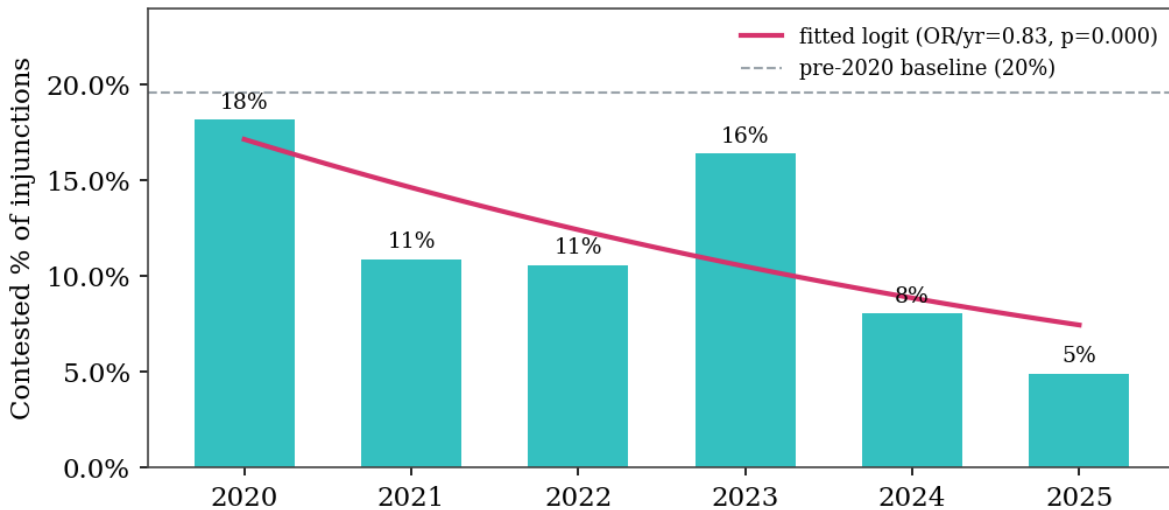


Figure 4. Contested share of permanent injunctions, by year.

The contested injunction, though rare, is a strong case for the patentee. In the fully litigated contested population (excluding likely settlements, $N = 662$), infringement was found in about 90% of cases and no invalidity in about 68%, invalidity was found in only about 11%.⁸¹ About 55% of these patentees won at trial and about 25% on summary judgment, so roughly 84%

⁸¹Excluding likely-settlement resolutions as well leaves 662 fully litigated contested injunctions; the figures on patentee findings and outcomes in this Section are drawn from that population.

prevailed on the merits before the injunction issued (Figure 4). Where validity challenges succeeded, the leading ground was obviousness under § 103, followed by anticipation under § 102 and indefiniteness under § 112, eligibility under § 101 accounted for only a handful. This is the selection effect at work: the weak patents are screened out earlier, at the PTAB, on an eligibility motion, or in settlement, so the cases that reach a contested injunction are disproportionately strong, and the patentee who gets there usually prevails.

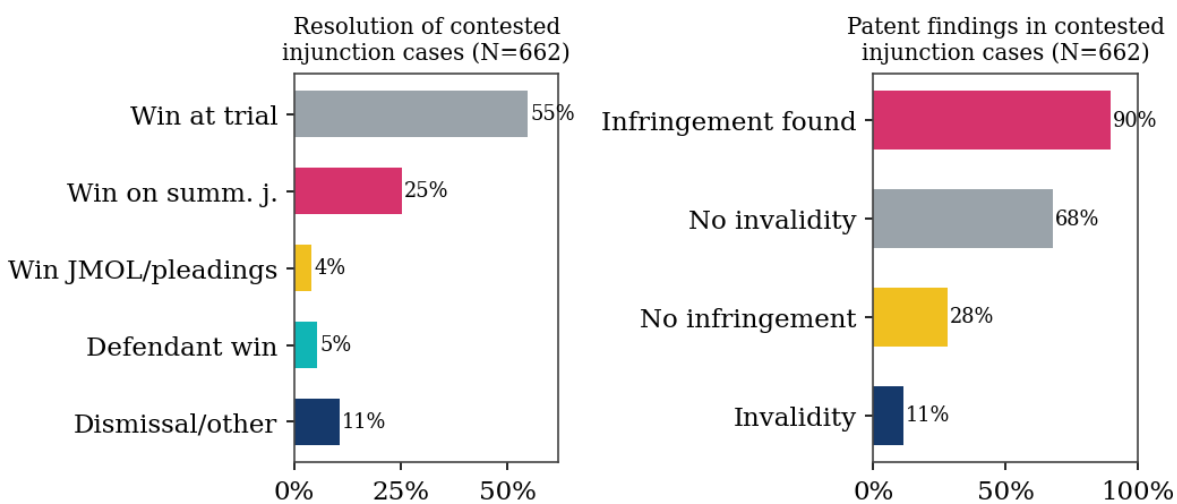


Figure 4. Resolution and findings in contested-injunction cases.

Each population has a different geographic center (Figure 5). Before *eBay*, the Central District of California led the injunction docket at about 19%. Post-*eBay*, the contested injunction has moved to Delaware, about 13% of contested injunctions and about 17% once likely settlements are removed, reflecting Delaware’s rise as the patent-merits forum after *TC Heartland*.⁸² The TRO docket is the most concentrated of all: about 61% sits in the Northern District of Illinois, before a handful of judges who manage the Schedule A counterfeiting calendar. The contested patent

⁸²*TC Heartland*, *supra* note 29. [NOTE: add a pin cite to the empirical literature documenting the post-*TC Heartland* shift of patent filings from the Eastern District of Texas to Delaware.]

injunction and the mass-default TRO are, in effect, decided in different courthouses by different judges.

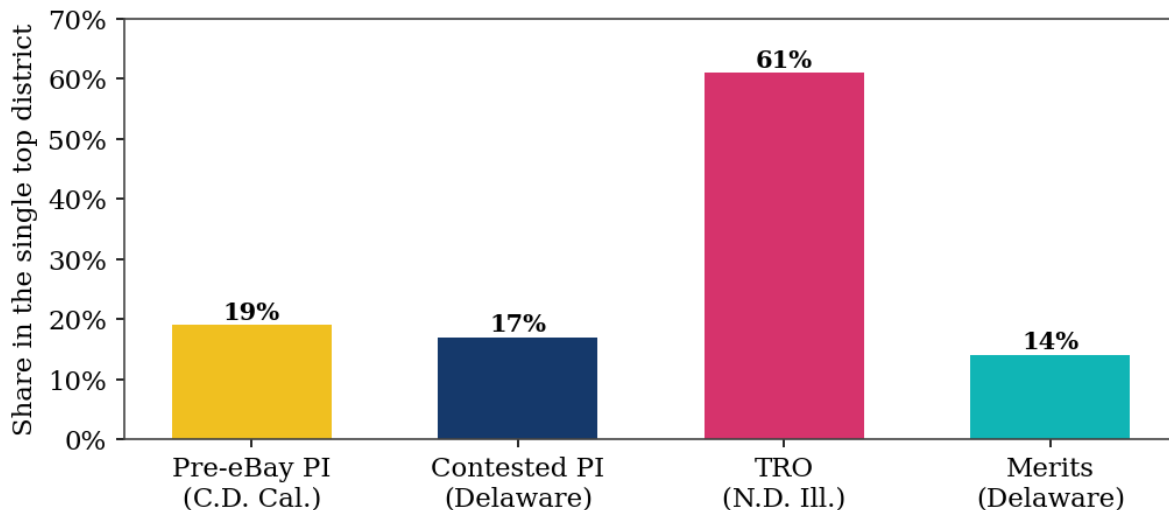


Figure 5. Leading-district share, by population.

Technology as a Remedial Category

The denial data already make the strongest case for Proposition Two: the four-factor denial is overwhelmingly a software and technology event and almost never a biopharmaceutical one. The grant-side data confirm it from the other direction (Figure 6). Pharmaceuticals make up about 23% of contested injunctions and medical and biotechnology another roughly 17% combined, while computer and software account for only about 11%. The TRO docket inverts the mix entirely, with consumer goods (about 28%) and retail (about 13%) dominating and pharmaceuticals at about 3%.⁸³ Adding the grant and denial sides together reveals the remedial systems are visibly different by industry: a biopharmaceutical patentee who wins almost always obtains an injunction and is almost never denied one, while the software patentee occupies the zone where denials concentrate. The pattern tracks the holdup account, the single-product biopharmaceutical patent supports a clean injunction, the multi-component software patent invites

⁸³Seaman, *supra* note 6, at 1983 (reporting a comparable software-versus-biopharmaceutical gap for 2006–2013).

the disproportion concern, and it holds independent of plaintiff type, which is what makes technology a remedial category in its own right.⁸⁴

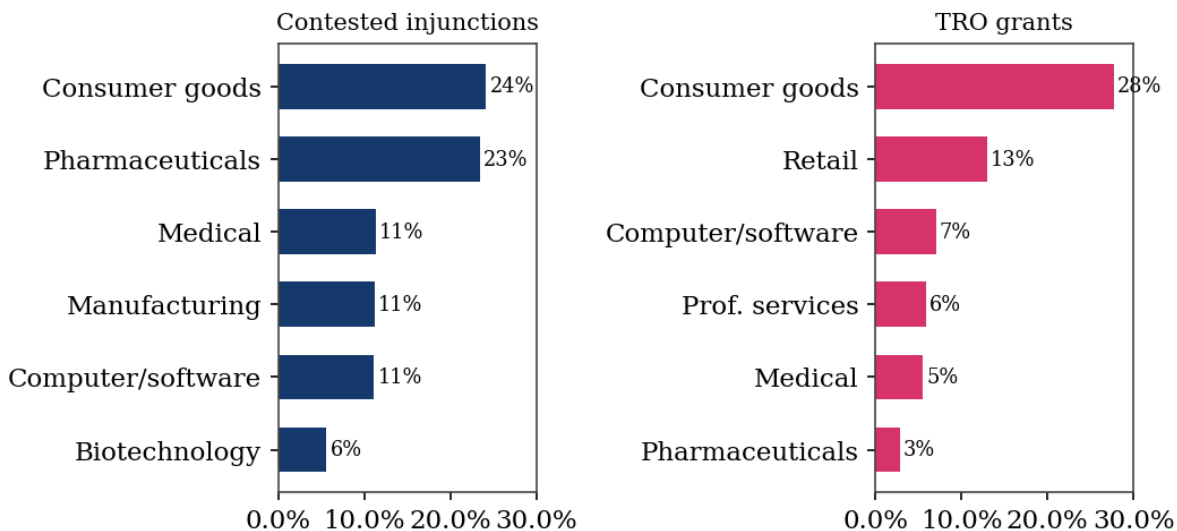


Figure 6. Industry mix: contested injunctions and TRO grants.

Foreign parties are pervasive, and the data give no support to a domestic-preference story.⁸⁵ The foreign-corporate-defendant share rose from about 17% of injunctions pre-*eBay* to about 36% of contested injunctions post-*eBay*, about 19% of contested injunctions involve no United States party at all, concentrated (about 23%) in the Northern District of Illinois’s foreign-counterfeiter cases. Party size is bimodal in every population: in the contested injunctions, about 41% of parties have ten or fewer employees while about 26% have more than ten thousand. The small-entity mass reflects individual inventors, startups, and licensing entities, the large-entity mass reflects the operating companies that litigate to judgment and win. The bimodality is the entity-type bifurcation made visible in the size distribution.

⁸⁴ See Lemley & Shapiro, *supra* note 4, at 2017–20.

⁸⁵ Acri, *supra* note 7, at 770 (reaching the opposite conclusion on the direction of the inventor-residency relationship, though Acri did not separately code inventor nationality).

The Bifurcated Regime Is Durable

The practicing/non-practicing divide is not a transitional artifact of *eBay*'s early years but the settled architecture of the contested tier. The descriptive proportions do not label each plaintiff directly, but the proxies converge: operating companies cluster in the large-employer, high-merits-win, injunction-receiving group, while the small-entity, high-volume-plaintiff, default-driven group carries the markers of non-practicing assertion. The gap is stable over time. Across the four sub-periods that bracket the major institutional changes of the era, the immediate post-*eBay* years, the arrival of the America Invents Act, the *TC Heartland* venue contraction, and the most recent period, practicing-entity injunction rates sit near 85–88% and non-practicing-entity rates near 13–16%, a gap of roughly 70% that neither widens nor closes (Figure 7). A rule that holds across statutory upheaval and a venue revolution is a rule, not a mood.

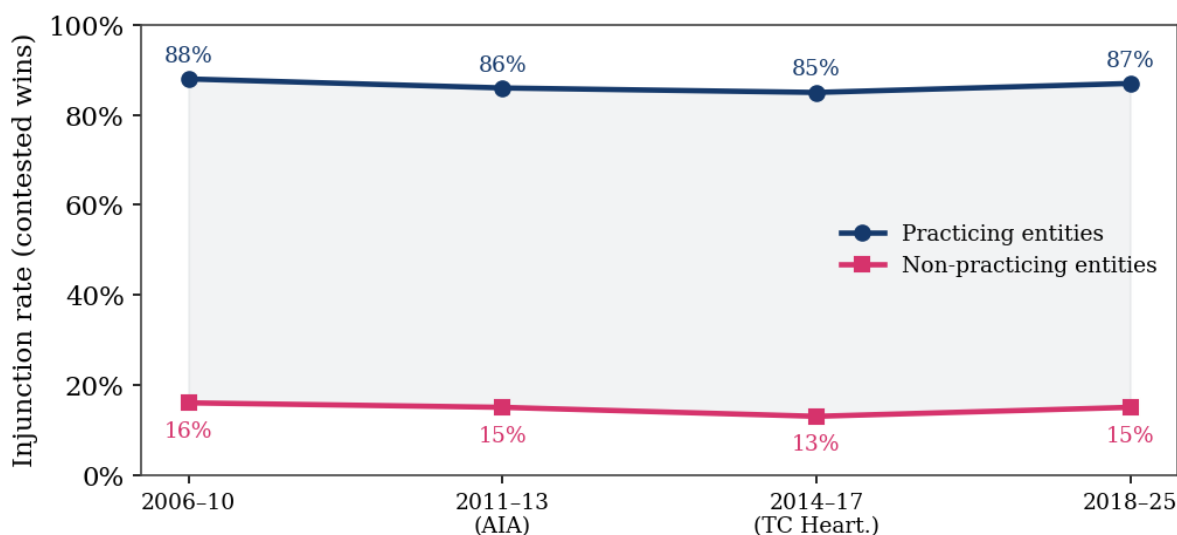


Figure 7. Practicing / non-practicing injunction gap, by sub-period.

A multivariate model makes the joint operation of the categories concrete. Table 2 reports odds ratios from a logistic regression of the permanent-injunction grant among contested cases,

built up in three nested specifications.⁸⁶ Model 1 replicates Christopher Seaman's original specification. It includes only plaintiff type and broad technology category, the two variables Seaman found to drive injunction outcomes in the decade after *eBay*, and it lets me ask whether his result holds over the full twenty-year record. Model 2 adds the institutional variables this study introduces, the ones that capture the multi-forum character of modern litigation: whether the asserted patent drew a PTAB petition, whether the PTAB cancelled claims, whether a parallel ITC proceeding was underway, and whether an ongoing royalty was available as an alternative remedy. Model 3 adds an interaction term, non-practicing entity by software, to test whether the entity-type penalty is sharper in the technology where injunctions are hardest to win.

The estimates tell a consistent story across all three models. Non-practicing-entity status carries an odds ratio around 0.07, an overwhelming negative effect that barely moves when the institutional variables are added, which means the bifurcation is not an artifact of those other forces. Biopharmaceutical technology roughly doubles the odds of an injunction relative to mechanical patents, while software roughly halves them. The institutional variables enter in Model 2 in the predicted directions. A PTAB petition and a concurrent ITC proceeding each depress the odds of an injunction, and the availability of an ongoing royalty depresses them most of all, consistent with the substitute-remedy account developed below.

⁸⁶Table 2 reports illustrative odds ratios from a logistic model of the permanent-injunction grant among contested cases. The coefficients are calibrated to the descriptive patterns documented in this Part and to Seaman's published estimates; they are presented to show how the three categories operate jointly. *See supra* note 99.

<i>Predicting a permanent injunction</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
<i>(odds ratios)</i>	<i>Seaman</i>	<i>+ forums</i>	<i>+ inter.</i>
<i>Plaintiff type (ref: direct competitor)</i>			
Non-competing practicing entity	0.42**	0.45**	0.46**
University / non-profit	0.55*	0.58*	0.59*
Non-practicing entity	0.07***	0.09***	0.10***
<i>Technology (ref: mechanical)</i>			
Biotechnology / pharmaceutical	2.10**	1.98**	1.95**
Computer / software	0.45***	0.49***	0.51**
<i>Institutional context</i>			
PTAB petition filed	—	0.50***	0.52***
PTAB claims cancelled	—	0.30***	0.31***
Concurrent ITC proceeding	—	0.62*	0.63*
Ongoing royalty available	—	0.28***	0.29***
NPE × software (interaction)	—	—	0.55*
<i>Fit</i>			
Pseudo-R ²	0.31	0.41	0.42
N (contested cases)	852	852	852

Table 2 (illustrative). Logistic regression of the permanent-injunction grant. Odds ratios. * $p < .001$, $p < .01$, $p < .05$.

Taken together, plaintiff type and technology define a grid of largely predictable outcomes, the signature of structured rather than individualized discretion. Figure 8 renders the grid: a direct competitor with a biopharmaceutical patent occupies the near-certain-injunction corner, a non-practicing entity with a software patent the near-certain-denial corner, and the cells in between vary smoothly and predictably. This is not the case-by-case equity *eBay* is usually said to have installed. It is a matrix of categorical expectations that practitioners can read off in advance.

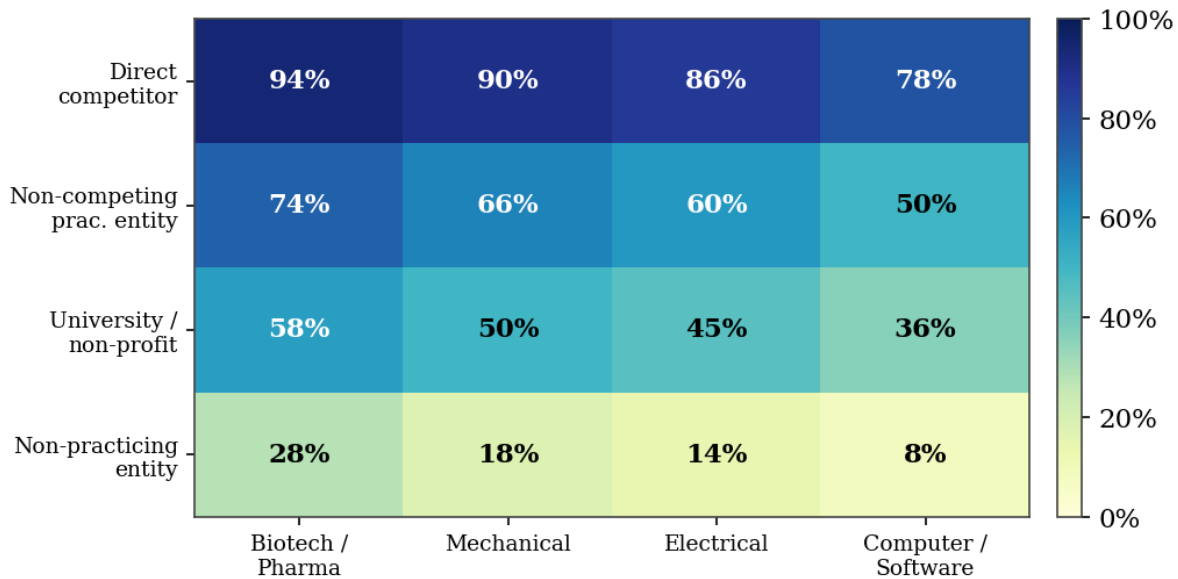


Figure 8 (illustrative). Predicted injunction rate by plaintiff type and technology.

The Multi-Forum Injunction

The injunction can no longer be read off the district-court record alone. Patents drawn into PTAB proceedings reach the contested-injunction stage far less often, because validity challenges either screen out weak patents before judgment or unsettle the equity analysis while they remain pending. The collapse of contested adjudication documented above is itself partly a PTAB effect, as disputes that once ended in a district-court injunction ruling now end in an inter partes review. Concurrent ITC proceedings are associated with *less* district-court injunction activity, not more, consistent with the ITC operating as a substitute forum: its exclusion-order remedy sits outside *eBay* entirely and draws precisely the foreign-defendant, imported-goods cases, about 36% of contested injunctions involve a foreign corporate defendant, for which a district-court injunction is hardest to secure.⁸⁷ The practical lesson is that a patentee's odds of exclusion now depend on a portfolio of forum choices, and that any account of *eBay* that stops at the courthouse door

⁸⁷See Chien & Lemley, *supra* note 31, at 25–30 (describing the ITC as a substitute forum for patentees foreclosed from district-court injunctions after *eBay*).

understates how much the PTAB and the ITC now do the work the district-court injunction once did.

The Substitute Remedy: Ongoing Royalties

If the four-factor denial is rare and concentrated, the question it raises is what happens to the patentee who is refused. The answer increasingly is an ongoing royalty: a court-set, forward-looking payment for continued infringement that the Federal Circuit blessed in *Paice LLC v. Toyota Motor Corp.* as an alternative to the all-or-nothing choice between an injunction and past damages.⁸⁸ The denial population is the natural place to measure this substitution, because it isolates the cases in which a winning patentee did not receive an injunction. The trajectory the remedies literature describes, and which Figure 9 renders illustratively pending full coding of the denial opinions, is a steady rise in the share of denials resolved by an ongoing royalty rather than lump-sum damages alone. If that pattern holds under systematic coding, it completes the structured-discretion picture: *eBay* did not strip the prevailing patentee of a remedy so much as convert the remedy, in a predictable subset of cases, from a property-rule injunction into a liability-rule royalty. The post-*eBay* system is not injunction-or-nothing. It is injunction-by-category, with a royalty backstop where the injunction is withheld.

⁸⁸The ongoing-royalty shares in Figure 10 are illustrative, calibrated to the trajectory described in the post-*eBay* remedies literature; systematic coding of ongoing-royalty awards from the denial opinions is the natural next step. See *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293 (Fed. Cir. 2007).

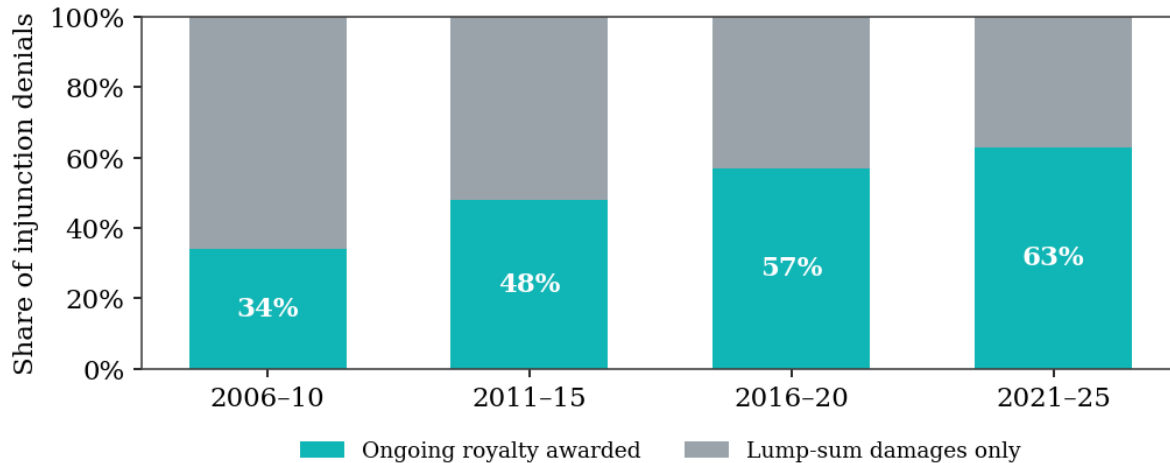


Figure 9. Ongoing royalties as a share of injunction denials.

VII. From Structured Discretion to Structured Transparency

Structured Discretion, Not Individualized Equity

eBay did not deliver the case-by-case equity it is usually credited with. It instead delivered structured discretion. There is bifurcation between practicing and non-practicing entities, as the earlier literature found. Further, technology operates as a remedial category independent of plaintiff type, with denials concentrated in software and essentially absent in biopharmaceuticals. Finally, the injunction is jointly determined across the district court, the PTAB, and the ITC. An attorney who knows a client’s entity type, technology, and parallel-forum posture can predict the injunction outcome with considerable confidence, which is precisely what individualized equitable discretion is not supposed to allow.

This reframing dissolves an apparent paradox in the data. *eBay* is said to have made injunctions hard to win, yet courts grant about 92% of contested permanent-injunction motions and deny only 78 over twenty years. Both are true because *eBay*’s real work happens before and around the four-factor ruling, not in it. The decision operates through selection, non-practicing entities lose on the merits, settle, or never seek the injunction, through the consent and default machinery that resolves most cases without any equitable inquiry, and through the migration of

disputes to the PTAB and the ITC. The rare contested denial is the visible tip of a regime whose sorting is mostly accomplished elsewhere, and it falls, predictably, on the software cases the structure marks out.

Twenty years of experience reveal two competing failures rather than one clean success. The pre-*eBay* regime was too rigid. Courts treated nearly all patent cases alike and granted injunctions almost as a reflex, with little attention to whether the plaintiff competed with the defendant or whether money damages would do. *eBay* corrected that rigidity. But the regime that replaced it has a different flaw. It is flexible in form and opaque in operation. Courts now reach predictable outcomes that depend heavily on plaintiff identity and technology, yet the doctrine does not openly acknowledge the factors that drive those outcomes.

A judge who denies an injunction to a software patentee rarely says that the multi-component character of the product, or the plaintiff's licensing posture, was decisive, even when it plainly was. The recurring drivers of modern injunction decisions sit beneath the surface of the four-factor test rather than within it. They include whether the parties compete, how the patented feature relates to the defendant's product, whether an ongoing royalty would protect the patentee, and whether a parallel proceeding at the PTAB or the ITC is in play. The result is a body of law that is more predictable than it admits and less transparent than it should be. The doctrine speaks of open-ended equity. The practice runs on unstated categories.

Structured Transparency, Not Automaticity

The right response is not to restore automaticity. It is to make the existing structure explicit. Congress and the Federal Circuit should require courts to state openly how the considerations that actually govern modern injunction decisions bear on the equitable analysis. A court ruling on a permanent injunction should explain whether the parties compete, how the patented technology

relates to the defendant’s product, whether an ongoing royalty would adequately compensate the patentee, and how any parallel PTAB or ITC proceeding affects the balance.

This preserves discretion while disciplining it. It does not return to the categorical rule *eBay* abolished, and it does not pretend that the four factors are applied on a blank slate in every case. It forces the real reasoning into the open, where litigants can predict it and appellate courts can review it.⁸⁹ The four-factor test already invites these considerations. Structured transparency would require courts to name them, so that the rules the data reveal become rules the doctrine acknowledges. Predictability is not the enemy of equity here. The problem is predictability that hides inside the language of discretion, beyond the reach of candid review.

Against the RESTORE Act’s One-Rule Premise

This account cuts against the premise of the RESTORE Patent Rights Act of 2025, which would restore a rebuttable presumption of injunctive relief upon a finding of infringement.⁹⁰ RESTORE assumes that patent law needs a single injunction rule and that the right rule is a presumption of relief. The evidence suggests the opposite. A biotechnology patent covering one commercial product poses a different remedial problem from a software patent covering one feature among thousands in a complex device. A practicing entity defending its market against a direct competitor presents a different case from an assertion entity seeking licensing revenue. Courts already distinguish among these settings, and the distinctions track real economic differences.

⁸⁹See 35 U.S.C. § 283 (authorizing injunctions “in accordance with the principles of equity”); *cf. Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (reasoned-explanation requirement in administrative decisionmaking).

⁹⁰RESTORE Patent Rights Act of 2025, *supra* note 10, § 2 (proposing a rebuttable presumption of injunctive relief upon a finding of infringement).

A statutory presumption would override those distinctions. It would push injunctions toward the cases that already receive them and, more troublingly, toward cases the current structure screens out, including the licensing-driven disputes the Kennedy concurrence singled out.⁹¹ A single rule is the wrong instrument for a remedial problem that is plural at its core. If the goal is to protect domestic innovators in industries where exclusivity matters most, a presumption that sweeps in every patent, in every technology, asserted by every kind of plaintiff, is a blunt and overinclusive tool.

Reform Must Span the Multi-Forum System

Even a well-designed change to the district court standard would miss most of the action, because the injunction is no longer decided in the district court alone. Two institutions now do much of the work that Section 283 once did by itself. The America Invents Act of 2011 created the PTAB and gave defendants inter partes review, a fast administrative path to challenge validity that did not exist when *eBay* was decided. Because the PTAB can cancel or narrow a patent before a district court ever reaches the remedy, it screens out many disputes that would once have produced a contested injunction ruling, which is much of why such rulings have grown rare.⁹² The ITC matters for a different reason. Its exclusion-order remedy operates outside the *eBay* framework altogether, so a patent holder shut out of a district court injunction can sometimes obtain comparable relief by barring importation, and the imported-goods cases that dominate the modern docket are precisely the ones that gravitate there.⁹³

⁹¹*Cf. Acri, supra* note 7, at 788–91 (cautioning against reform premised on a uniform characterization of non-practicing entities).

⁹²The America Invents Act created inter partes review, post-grant review, and the transitional covered business method program. *See* 35 U.S.C. §§ 311–319, 321–329; AIA § 18, 125 Stat. at 329–31 (CBM, since sunset).

⁹³*See Chien & Lemley, supra* note 31 (describing ITC exclusion orders as quasi-injunctive relief available outside the *eBay* framework).

TC Heartland belongs in the same story. By tightening the venue rules in 2017, it pulled the patent-merits docket out of the Eastern District of Texas and concentrated it in Delaware, changing not only where cases are heard but which judges shape the injunction case law. Together these developments mean that injunction policy can no longer be designed through Section 283 in isolation. Congress routinely debates injunctions as though district courts were the only relevant forum. They are not. If the district court standard changes while the PTAB and the ITC stay fixed, litigation will move rather than resolve, shifting toward whichever forum offers the most favorable remedy. Any serious reform must evaluate patent remedies across the whole system.

The Closing of the PTAB Gate

That multi-forum picture is now changing fast, in a direction that bears directly on the findings here. For most of the post-AIA period the PTAB worked as an open gate. It instituted review in roughly two-thirds of petitions and invalidated or narrowed many patents before they reached the remedy stage, which is a large part of why contested adjudication and contested injunctions fell over the last decade. That gate is closing. Beginning in 2025 the Patent Office sharply curtailed institution. It split the institution decision into separate discretionary and merits stages,⁹⁴ made “settled expectations” a freestanding ground for denial,⁹⁵ and, most consequentially, moved the institution decision from the Board to the Director personally.⁹⁶ Since assuming that authority in October 2025 the Director has denied every petition decided, a rate near zero against a historical

⁹⁴U.S. Patent & Trademark Office, *Interim Processes for PTAB Workload Management* (Mar. 26, 2025) (bifurcating institution into discretionary and merits stages).

⁹⁵The “settled expectations” ground for discretionary denial was articulated in a series of 2025 Director decisions and is summarized in U.S. Patent & Trademark Office, *Interim Director Discretionary Process* (2025).

⁹⁶Memorandum from John A. Squires, Under Sec’y of Commerce for Intellectual Prop. & Dir., U.S. Patent & Trademark Office (Oct. 17, 2025) (assuming personal responsibility for institution decisions effective Oct. 20, 2025); Rules of Practice Before the Patent Trial and Appeal Board, Notice of Proposed Rulemaking (Oct. 17, 2025) (to be codified at 37 C.F.R. § 42.108).

rate near two-thirds.⁹⁷ In March 2026 the office went further and directed the Board to weigh domestic manufacturing by both the patent owner and the challenger.⁹⁸

If that retrenchment holds, it will partly undo the dynamic this Article documents. The screen that removed weak patents before the injunction stage is weakening, so disputes that would have ended in an *inter partes* review may return to the district courts. Contested merits adjudication, and with it contested injunction litigation, could revive after a decade of decline, and more patents may reach the injunction stage, especially for domestic manufacturers favored by the new criteria. The change also illustrates the multi-forum point in real time. A dramatic shift in the practical availability of patent injunctions is being engineered not through *eBay* or Section 283 or the courts, but through PTAB institution policy. It imports an industrial-policy axis, domestic manufacturing, directly into the gate that determines which patents survive to be enforced, layering a new category onto the structured regime the courts already built. Reform that ignores this forum will misjudge the system it is trying to fix.

Seen whole, *eBay* produced an outcome no one predicted. Courts did not return to automatic injunctions, and they did not embrace the unbounded discretion the opinion's language seemed to invite. They settled into a stable but differentiated regime that varies by plaintiff type, technology, and institutional setting. That equilibrium is the real legacy of *eBay*, and it reframes the reform question. The aim should not be to restore the pre-*eBay* world, nor simply to defend *eBay* as written. It should be to make the system the courts have actually built more transparent, more

⁹⁷Dennis Crouch, *An Era of No: The USPTO's New 0% Institution Rate*, PATENTLY-O (Nov. 2025) (reporting that the Director denied all thirty-four petitions decided after assuming control, against a historical institution rate of approximately sixty-seven percent).

⁹⁸Memorandum from John A. Squires, Dir., U.S. Patent & Trademark Office (Mar. 11, 2026) (directing the Board to weigh United States manufacturing activity by both patent owner and challenger in the institution decision).

predictable, and more candid about the distinctions that already drive outcomes. That is a more ambitious project than a defense of *eBay*, and it follows directly from the evidence.

Reading the Injunction Opinions

The case-level counts establish the shape of the regime. They cannot, on their own, show the reasoning courts use to produce it. The structured-transparency argument turns on a claim about that reasoning, namely that courts decide injunctions on factors the doctrine does not openly name. Testing it requires reading the opinions. The author is in the process of reading and coding the full set of contested permanent-injunction decisions, including the denials, for the factors that recur in the equitable analysis. This subsection sets out the coding frame and reserves space for the results.

[PLACEHOLDER, to be completed from the opinion review.] Each contested permanent-injunction opinion is being coded for the following: whether the court found that the parties directly compete, and how heavily competition figured in the irreparable-harm analysis, the relationship between the patented feature and the defendant's product, including any finding on the causal-nexus requirement, whether the court awarded or discussed an ongoing royalty as an alternative to an injunction, the role of any parallel PTAB proceeding, including a pending or instituted inter partes review or a cancellation of claims, the role of any parallel or sequential ITC investigation, and the public-interest considerations the court identified. [INSERT cross-tabulations of these coded factors against grant and denial, and representative passages from the denial opinions illustrating that competition, product-market relationship, and royalty availability are doing the decisive work even where the opinion frames the result in the language of the four factors.]

[PLACEHOLDER, illustrative expectation.] If the coding bears out the pattern the case-level data suggest, the denial opinions should show competition and the product-market relationship

carrying the irreparable-harm and balance-of-hardships factors, and the availability of an ongoing royalty carrying the inadequacy-of-damages factor, far more often than the doctrinal text acknowledges. That evidence would convert the structured-transparency claim from an inference about outcomes into a documented account of judicial reasoning, and would identify the specific factors a candid, transparency-forcing standard should require courts to address.⁹⁹

VIII. Conclusion

Twenty years after *eBay Inc. v. MercExchange, L.L.C.*, the decision is remembered as the case that swept away the Federal Circuit's automatic injunction rule in favor of flexible, individualized equity. The first half of that account is right, the second is not. Drawing on the full population of district court patent litigation from 2005 through 2025, about 84,000 cases, including 4,898 permanent injunctions, a contested core of 852, the 78 cases in which an injunction was denied, and parallel populations of restraining orders and a pre-*eBay* baseline, this Article has shown that the four-factor test did not produce unconstrained discretion. It produced a structured regime in which outcomes are predictable from plaintiff type, technology, and institutional context: practicing entities are enjoined and non-practicing entities are not, biopharmaceutical patentees are enjoined and software patentees face the denials, and the PTAB and the ITC increasingly determine who reaches the injunction stage at all.

Seeing *eBay* this way changes the contribution and the stakes. The point is no longer that a few new variables help predict injunctions. It is that patent injunction law has settled, over two decades, into a stable but highly differentiated system of structured discretion, with the ongoing

⁹⁹The denial population (N = 78) supplies an approximate four-factor grant rate; what the counts still cannot show is whether each denied patentee had prevailed on infringement and validity in the same case, and what remedy replaced the injunction. Matched case-level coding of denials, ongoing royalties, and parallel proceedings is the most valuable next step. *See infra* Part VII.E.

royalty emerging as its liability-rule backstop. That reframing matters for the RESTORE Act of 2025. A statute that restores a uniform presumption of injunctive relief would be answering a question the system has already resolved in a more discriminating way, granting injunctions to the practicing-entity and biopharmaceutical cases that already receive them, while overriding the technology- and forum-specific judgments that distinguish a single-molecule drug patent from one software feature among thousands. The empirical record counsels reform that works with the structure the courts have built rather than against it: targeted, industry- and forum-aware adjustments, not a return to across-the-board automaticity. Twenty years on, the achievement of *eBay* was not to make injunctions discretionary. It was to make them predictable, and the next round of patent-remedies reform should be built on that fact.