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INJUNCTIVE RELIEF IN PATENT CASES: THE IMPACT OF *EBAY*

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ABSTRACT

The U.S. Supreme Court's 2006 decision in *eBay Inc. vs MercExchange, L.L.C.* marked a turning point in the history of patent enforcement and policy. Prior to 2006, lower courts frequently granted injunctions in patent infringement cases, almost as a matter of course, to those who sought them. In a unanimous decision, the Court struck down the Federal Circuit's general rule that, once a patent is found to be valid and infringed, an injunction should be issued "absent exceptional circumstances." However, Chief Justice Kennedy's concurrence linked the rejection of a general rule regarding permanent injunctions to concerns surrounding non-practicing entities ("NPEs"). This raises the question of whether courts provide preferential treatment to operating companies over NPEs. If operating companies are favored in terms of the likelihood of granting an injunction, then NPEs have reduced bargaining power in both litigation and licensing negotiations. This study analyzes the set of all patent cases filed in the United States District Courts ("USDCs") from 2000 to 2023 in which there was a motion for either a preliminary or a permanent injunction. This work examines the difference in the rate at which both preliminary and permanent injunctions were sought and granted, based on the rate at which these motions were filed pre-*eBay* and post-*eBay*. Given the concerns with NPEs raised in the Kennedy concurrence, this study also examines whether plaintiffs are treated differently based on their category. The analysis finds that the *eBay* ruling significantly reduced both the request for and grant of injunctions, relative to the pre-*eBay* baseline, and that the decision differentially impacted different

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categories of plaintiffs. Specifically, the relative decrease in requests for permanent injunctions was 87.4% for NPEs and 65.0% for operating companies. Surprisingly, requests for preliminary injunctions also fell, relative to the baseline: 48.4% for NPEs and 53.2% for operating companies. Finally, the relative decreases in grants of permanent injunctions were 91.2% for NPEs and 66.7% for operating companies. This Article describes the significant and unique role of injunctions as a remedy in patent cases describing why there is no clear economic substitute to such a remedy and highlighting the importance of the impact of *eBay* on the availability of injunctions as a remedy.

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I. INTRODUCTION

On May 15, 2006, the Supreme Court issued its opinion in *eBay Inc. v. MercExchange, L.L.C.*,[1] altering the legal landscape surrounding injunctive relief in significant ways.[2] In the decision, the Justices called for an end to courts automatically granting injunctions, directing lower courts to adhere to a common law four-part test for granting injunctive relief.[3] The Supreme Court's decision effectively abolished the practice that, absent exceptional circumstances, an injunction will automatically issue when a patent is found to be valid and infringed.[4] Studies establish that prior to *eBay*, permanent injunctions were granted almost as a matter of course to those who sought them.[5] That is, being infringed, the patent owner's strategy would be to quickly begin litigation and immediately seek a preliminary injunction. The preliminary injunction analysis required considering the plaintiff's reasonable likelihood of success on the merits, whereas a permanent injunction is not even considered until the plaintiff won the infringement case. If the court found the infringement claim to be valid, then a permanent injunction would be issued to cease the infringement.

1. 547 U.S. 388 (2006).

2. For an excellent summary of the 2006 *eBay* decision see Adam Mossoff, *The Injunction Function: How and Why Courts Secure Property Rights in Patents*, 96 NOTRE DAME L. REV. 1581, 1585–86 (2021).

3. Jeremy Mulder, *The Aftermath of eBay: Predicting When District Courts Will Grant Permanent Injunctions in Patent Cases*, 22 BERKELEY TECH. L.J. 67, 67 (2007).

4. *See* Mossoff, *supra* note 2, at 1585 ("The *eBay* Court thus affirmed the right of all patent owners to obtain injunctions against infringers, but it rejected any categorical or rule-based approach . . . .").

5. *See* Ryan T Holte, *The Misinterpretation of* eBay v. MercExchange *and Why: An Analysis of the Case History, Precedent, and Parties*, 18 CHAP. L. REV. 677, 720 (2015) (citing studies).

The award of a permanent injunction was recognized as almost inevitable following a finding of the infringement of a valid patent.[6]

In a concurrence authored by Justice Kennedy, and joined by Justices John Paul Stevens, David Souter, and Stephen Breyer, the Justices focused on controversial policy issues — not historical case law or judicial practices — including issues related to non-practicing entities ("NPEs"), who are the patent owners that do not manufacture but only license their intellectual property.[7] Kennedy made the argument that the *eBay* decision is important in reducing the leverage that NPEs have, thereby providing a justification for the decision.[8] Notably, the Supreme Court sought to weigh the denial of injunctions stemming from a plaintiff's willingness to license its patents against the plaintiff's failure to practice those patents while warning against "expansive principles suggesting that injunctive relief could not issue in a broad swath of cases."[9]

However, since the Supreme Court issued its opinion on *eBay*, some have noted that district courts have consistently denied permanent injunctions in cases where the infringing party contested the patent holder's request for such relief, as well as in instances when the patent holder and the infringers were not direct competitors in a product market.[10] If accurate, this may indicate that the district courts' post-*eBay* practice runs afoul of the Supreme Court's warning about any "categorical denial of injunctive relief" to a broad class of patent holders.[11] In turn, concerns have been raised regarding the potential for patent hold-up caused by patent owners and their ability to derive higher royalties under the mere *threat of an injunction*.[12] As a result, several researchers emphasize the need to limit injunctive relief even

6. *See* John L. Dauer, Jr. & Sarah Elizabeth Cleffi, *Trends in Injunctive Relief in Patent Cases Post*-eBay, CORP. COUNS. BUS. J. (Feb. 1, 2007), https://ccbjournal.com/articles/trends-injunctive-relief-patent-cases-post-ebay [https://perma.cc/33WQ-S9YK].

7. In this context, NPEs are sometimes referred to as "patent trolls."

8. Miranda Jones, *Permanent Injunction, a Remedy by any Other Name Is Patently Not the Same: How* eBay v. MercExchange *Affects the Patent Right of Non-Practicing Entities*, 14 GEO. MASON L. REV. 1035, 1058 (2007).

9. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 393 (2006).

10. *See, e.g.*, Vincenzo Denicolò, Damien Geradin, Anne Layne-Farrar & A. Jorge Padilla, *Revisiting Injunctive Relief: Interpreting* eBay *in High-Tech Industries with Non-Practicing Patent Holders*, 4 J. COMPETITION L. & ECON. 571, 574 (2008); *see also* Mulder, *supra* note 3, at 75; Bernard H. Chao, *After* eBay, Inc. v. MercExchange*: The Changing Landscape for Patent Remedies*, 9 MINN. J.L. SCI. & TECH. 543, 553 (2008); Douglas Ellis, John Jarosz, Michael Chapman & L. Scott Oliver, *The Economic Implications (and Uncertainties) of Obtaining Permanent Injunctive Relief After* eBay v. MercExchange, 17 FED. CIR. BAR J. 437, 459 (2008).

11. eBay, 547 U.S. at 394.

12. *See* Bowman Heiden & Justus Baron, *The Economic Impact of Patent Holdout*, 38 HARV. J. L. & TECH. 637, 639–40 (2025).

further, specifically for entities that are not manufacturers.[13] However, if there is no distinction across different types of patent owners, this implies that the alleged risk of potential "patent hold-up" under the threat of an injunction has been mitigated.[14] In short, there is still significant confusion surrounding the implications and impact of the *eBay* ruling.

This Article is a study that analyzes the set of all patent cases filed in the United States District Courts ("USDCs") from 2000–2023 in which there was a motion for either a preliminary or permanent injunction. This is done through econometric analysis of both types of injunctions in the time periods before and after the *eBay* decision. In addition, the study takes into account the quality of the patents asserted, controlling for patent quality using proxies based on the number of claims and geographic scope through the family jurisdiction. This study also considers the plaintiff category, specifically whether the plaintiff is an operating company or an NPE and examines whether plaintiffs are treated differently based on their category. The analysis finds that the *eBay* ruling significantly reduced both the request for and grant of injunctions, relative to the pre-*eBay* baseline, and that the decision impacted different categories of plaintiffs to differing degrees. All changes are relative and take the pre-*eBay* baseline into account. Specifically, the relative decrease in requests for permanent injunctions was 87.4% for NPEs and 65.0% for operating companies. In an unexpected turn, requests for preliminary injunctions also fell, again, relative to the pre-*eBay* baseline: 48.4% for NPEs and 53.2% for operating companies. In addition, the analysis demonstrates that the *eBay* decision also resulted in a relative decrease in grants of permanent injunctions. The relative changes were a decrease of 91.2% for NPEs and a drop of 66.7% for operating companies. Finally, this Article describes the significant and unique role of injunctions as a remedy in patent cases describing why there is no clear economic substitute to such a remedy and highlighting the importance of the impact of *eBay* on the availability of injunctions as a remedy.

This Article is organized as follows. Part II explores the importance of injunctions as remedy in patent cases, highlighting their economic value. Part III introduces the *eBay* decision. Part IV describes the data utilized in this study. Part V presents the empirical evidence and regression analysis of the data. Part VI considers the economic consequences of the *eBay* decision and describes why there is no clear

13. *See* Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 2044 (2007); *see, e.g.*, Carl Shapiro, *Injunctions, Hold-Up, and Patent Royalties*, 12 AM. L. & ECON. REV. 280, 280 (2010) (including a description of numerous other studies and examples).

14. *See* Lemley & Shapiro, *supra* note 13, at 2012–15.

economic substitute for such a remedy. Part VII discusses the importance of these results and conclusions.

II. IMPORTANCE OF INJUNCTIONS

The patent system not only incentivizes investments in research and development but also facilitates the transfer of technology.[15] Injunctive relief in patent litigation is an important part of this landscape. In the enforcement of patent rights, the law has traditionally provided two remedies[16]: monetary damages and injunctive relief, which is available in situations in which a monetary award is insufficient to make the patent owner whole. In this capacity, injunctive relief is an important complement to monetary damages, which can be challenging to calculate.[17] With the increasing complexity of technology and intellectual property schemes, the calculation of reasonable compensation has become more difficult.[18] This is particularly true when the infringing use of a patented technology leads to market prices that may not reflect the technology's value, thus obfuscating the use of industry norms to establish royalties.[19]

While injunctive relief as a remedy is important as an end, the threat of a permanent injunction is equally useful to a patent holder.[20] Bargaining theory establishes that the threat of a permanent injunction is sufficient to enhance the negotiating power of the patent owner, potentially "leading to royalty rates that exceed a natural benchmark range based on the value of the patented technology and the strength of the patent."[21] The Federal Circuit had no reservations about the effect of the threat of a permanent injunction on licensing negotiations, explaining in *MercExchange v. eBay* that "additional leverage in licensing . . . is a natural consequence of the right to exclude and not an inappropriate reward to a party that does not intend to compete in the marketplace with potential infringers."[22] As noted by Golden,

15. *See* STANDING COMM. ON L. PATS., WORLD INTELL. PROP. ORG., PATENT LAW PROVISIONS THAT CONTRIBUTE TO EFFECTIVE TRANSFER OF TECHNOLOGY, INCLUDING SUFFICIENCY OF DISCLOSURE 1–2 (2020).

16. Carl Shapiro, *Patent Remedies*, 106 AM. ECON. REV. 198, 198 (2016).

17. John M. Golden, *Principles of Patent Remedies*, 88 TEX. L. REV. 505, 566 (2010).

18. *See* Christopher B. Seaman, *Reconsidering the* Georgia-Pacific *Standard for Reasonable Royalty Patent Damages*, 2010 BYU L. REV. 1661, 1688 (describing the challenges of applying the *Georgia-Pacific* factors to increasingly complex patented products, specifically noting that the factors cannot adequately address technology with a "wide array of high-tech components or features," and that the test provides little help for juries seeking to weigh the factors and calculate a royalty amount); *see also* Golden, *supra* note 17, at 527 (explaining five basic problems that complicate the determination of patent remedies).

19. *See* Seaman, *supra* note 18, at 1688.

20. Lily Lim & Sarah E. Craven, *Injunctions Enjoined; Remedies Restructured*, 25 SANTA CLARA COMPUT. & HIGH TECH. L.J. 787, 792 (2009).

21. *See* Lemley & Shapiro, *supra* note 13, at 1991.

22. MercExchange, L.L.C. v. eBay, Inc., 401 F.3d 1323, 1339 (Fed. Cir. 2005).

"licensing agreements are . . . shaped by the concerns and expectations of both patent holders and infringers," such that the loss of the credible threat of an injunction against infringing use may thus compromise the strength of the patent owner's position in licensing negotiations.[23]

Holte describes the winners and losers following the *eBay* decision and the ostensible impact of the ruling on the grant rate of injunctive relief.[24] The impact of the decision is likely to differentially impact patent owners of different sizes. That is, large, well-endowed entities are more easily able to appropriate patented technologies and bear the costs of the resulting legal challenges. Fewer resources disadvantage small entities and inventors who suffer as a result.[25] Absent the threat of a permanent injunction, the incentives to "engage in the toils of scientific and technological research" are reduced if not eliminated.[26]

III. A DESCRIPTION OF *EBAY*

The essence of the case is as follows: MercExchange, L.L.C. held a business method patent for an electronic marketplace which they sought to license to eBay Inc.[27] However, the parties failed to reach a licensing agreement.[28] MercExchange filed a patent infringement suit against eBay in the U.S. District Court for the Eastern District of Virginia.[29] A jury found the patent to be valid, but the district court denied MercExchange's motion for permanent injunctive relief.[30] The Court of Appeals for the Federal Circuit reversed this decision on appeal, applying its general rule that courts should issue permanent injunctions against patent infringement absent exceptional circumstances.[31]

The Supreme Court then unanimously reversed the Federal Circuit. In a very short opinion, the Court determined that both categorical denials and blanket grants of injunctive relief were improper and laid out the four-factor test.[32] In a concurrence authored by Justice Kennedy, and joined by Justices John Paul Stevens, David Souter and Stephen Breyer, Justice Kennedy focused on controversial policy issues — not historical case law or judicial practices — including

23. John M. Golden, Commentary, *"Patent Trolls" and Patent Remedies*, 85 TEX. L. REV. 2111, 2125 (2007).

24. Holte, *supra* note 5, at 731–33.

25. Alberto Galasso & Mark Shankerman, *Patent Rights and Innovation by Small and Large Firms*, 49 RAND J. ECON. 64, 65 (2018).

26. Telequip Corp. v. Change Exchange, 2006 WL 2385425, at *2 (N.D.N.Y. Aug. 15, 2006).

27. eBay, 547 U.S. at 390.

28. *Id.*

29. *Id.*

30. *Id.* at 390–91.

31. *Id.* at 391.

32. *Id.* at 394.

issues related to NPEs, who are the patent owners that do not manufacture, but only license their intellectual property. Kennedy made the argument that the *eBay* decision is important in reducing the leverage that NPEs have, thereby providing a justification for the decision.[33] He argued that injunctions provided licensors "undue leverage" to "charge exorbitant fees."[34] This concern is known as "patent holdup" theory, in which a patent holder extorts excessive royalties in licensing agreement from an infringing product manufacturer.[35] Notably, the Supreme Court sought to balance the denial of injunctions solely because of a plaintiff's willingness to license its patents with the plaintiff's lack of commercial activity practicing those patents while warning against "expansive principles" suggesting that injunctive relief could not issue in a broad swath of cases.[36]

Prior to *eBay*, permanent injunctions issued almost automatically.[37] Specifically, permanent injunctions were granted in ninety-four to one hundred percent of cases where patent infringement was found.[38] The *eBay* decision drastically changed this. In the ten years following *eBay*, requests for permanent injunctions were denied in approximately one-quarter of cases where patent infringement was established.[39] Following the decision, in place of permanent injunctions, courts instead set ongoing royalties for the continuing infringement. This practice led to concerns that district courts consistently denied permanent injunctions in cases in which an infringer contested the patent holder's request for such relief, as well as in instances in which the patent holder and the infringers did not compete directly in a product market.[40] If the *eBay* decision in effect penalizes the class of non-manufacturing patent holders, the results may not be optimal, because the term is broad[41] and often includes many truly innovative research-

33. Jones, *supra* note 8, at 1058.

34. eBay, 547 U.S. at 396.

35. *See* Heiden & Baron, *supra* note 12, at 639–40.

36. eBay, 547 U.S. at 396.

37. *See supra* note 5 and accompanying text.

38. *See* Holte, *supra* note 5, at 719 (discussing the finding that injunctive relief is only denied in zero to six percent of cases); Shyamkrishna Balganesh, *Demystifying the Right to Exclude: Of Property, Inviolability, and Automatic Injunctions*, 31 HARV. J.L. & PUB. POL'Y 593, 650–52 (2008) (referencing the Federal Circuit's rule of nearly automatically granting injunctions).

39. Holte, *supra* note 5, at 719 (concluding that the "post-*eBay* injunction denial rates have, at a minimum, quadrupled").

40. *See, e.g.*, Denicolò et al., *supra* note 10; *see also* Mulder, *supra* note 3; Chao, *supra* note 10; Ellis et al., *supra* note 10.

41. *See* Christopher A. Cotropia, Jay P. Kesan & David L. Schwartz, *Unpacking Patent Assertion Entities (PAEs)*, 99 MINN. L. REV. 649, 650 (2014); *see also* Michael J. Mazzeo, Jonathan H. Ashtor & Samantha Zyontz, *Do NPEs Matter? Non-Practicing Entities and Patent Litigation Outcomes*, 9 J. COMPETITION L. & ECON. 879, 883 (2013).

oriented, non-manufacturing firms, inventors, and university labs that operate in high-tech markets.[42]

Since the practice of (usually) granting a permanent injunction following a finding of infringement has disappeared,[43] there are two important consequences that result. First, the rate of grants of permanent injunctions has diminished. Second, there are presumably cases in which permanent injunctions would have been sought, but the patent holder did not bother due to the legal costs and the diminished likelihood of receiving a permanent injunction. Utilizing case studies and smaller data sets, earlier studies assessed how the courts' use of injunctions changed following *eBay* and the potential importance of the characteristics of patents and patent holders.[44] Further, other scholars noted that post-*eBay* case law seems to be leaning toward favoring a manufacturing licensee's perspective with minimal consideration given to the impact on firms with other types of legitimate business models, such as innovators with limited or no presence in downstream markets ("non-manufacturing" or "non-practicing" patent holders).[45] Additional studies find the rate of denial for NPEs in particular to be significantly higher. Specifically, Seaman analyzes the rate of permanent injunctions in USDC decisions in patent cases after *eBay*. While the overall average grant rate of permanent injunctions post-*eBay* was 72.5 percent, the rate varied greatly depending on the identity of the patentee: sixteen percent for NPEs and eighty percent for all other patentees.[46] Further evidence may be found in work by Peterson who analyzed thirty-three USDC on a motion for permanent injunctions immediately post *eBay*. In an examination of patent cases between May 2006 and February 2008, the study found that in twenty-four (out of the thirty-three) cases, a permanent injunction was granted, but NPEs were less likely to be granted an injunction.[47]

The *eBay* ruling and its impact on injunctive relief have important economic consequences for patent holders and innovative activity.[48]

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42. See Shawn P. Miller, *Who's Suing Us? Decoding Patent Plaintiffs Since 2000 with the Stanford NPE Litigation Dataset*, 21 STAN. TECH. L. REV. 235, 248–51 (2018).

43. Mossoff, *supra* note 2, at 1585 ("The *eBay* Court thus affirmed the right of all patent owners to obtain injunctions against infringers, but it rejected any categorical or rule-based approach . . . .").

44. *See* Christopher B. Seaman, *Permanent Injunctions in Patent Litigation after* eBay*: An Empirical Study*, 101 IOWA L. REV. 1949, 2002 (2016); *see also* Benjamin Peterson, *Injunctive Relief in the Post*-eBay *World*, 23 BERKELEY TECH. L.J. 193 (2008) (analyzing trends in groups granted injunctions post-*eBay*).

45. *See* Golden, *supra* note 23, at 2147.

46. Seaman, *supra* note 44, at 1986 tbl.2.

47. Peterson, *supra* note 44, at 196–98.

48. *See generally* Dirk Auer, Geoffrey A. Manne, Julian Morris & Kristian Stout, *The Deterioration of Appropriate Remedies in Patent Disputes*, 21 FEDERALIST SOC'Y REV. 158, 158 (2020) (describing "patents, which are no less important than their traditional

The grant of a permanent injunction gave the patent holder leverage in negotiations, strengthening their ability to secure the price that they wanted for their technology. Potential buyers of the technology could agree to the terms requested by the patent holder or seek a different technology. As a remedy for infringement, injunctions serve an important economic function — facilitating commercial transactions of intellectual property.[49] Absent the threat of a permanent injunction, the patent holder is no longer able to offer "the right to exclude" for sale, which means that a potential licensee is purchasing fewer rights.[50] Accordingly, "parties who wish to use the technology have no need to negotiate in good faith — or at all."[51] As a result of the *eBay* ruling, injunctive relief is more elusive for patent holders, even after winning their infringement lawsuit and defending against validity challenges.[52] Plaintiffs may now be self-selecting out of seeking permanent injunctions. That is, due to the diminished likelihood of the award of a permanent injunction, fewer patent owners may be willing to bear the costs of seeking the remedy.

Given some potential confusion created by how courts classify preliminary and permanent injunctions, it is important to establish the validity of the comparison of preliminary and permanent injunctions, and thus why preliminary injunctions are an appropriate control in this study. Quite simply, they are both equitable remedies, and post-*eBay,* they have similar four-factor tests that courts apply to determine whether to issue them.[53] Admittedly, in the case of preliminary

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counterparts in facilitating innovation and the efficient organization of productive economic activity . . ."); Eric R. Claeys, *The Conceptual Relation Between IP Rights and Infringement Remedies*, 22 GEO. MASON L. REV. 825, 863 (2015) (arguing that "what's true in property torts generally applies the same way to the class of IP remedies disputes typified by *eBay* . . ."); Adam Mossoff & Eric R. Claeys, *Patent Injunctions, Economics, and Rights*, 50 J. LEGAL STUD. S129, S129 (2021) (detailing why injunctions should be a presumptive remedy for infringement and how "rights-based justifications can supply such an explanation, and . . . a Lockean theory of rights based in a metaethics of flourishing (eudaimonism) justifies both a patent and an injunctive remedy for violations of a patent"); Ted Sichelman, *Purging Patent Law of "Private Law" Remedies*, 92 TEX. L. REV. 517, 519 (2014) ("[T]he overarching aim of patent law is to promote innovation.").

49. *See supra* note 48 and accompanying text.

50. Notably, as acknowledged by the Supreme Court, the right to exclude is "the essence of a patent grant." Dawson Chem. Co. v. Rohm & Hass Co., 448 U.S. 176, 215 (1980).

51. Kristen J. Osenga, *The Loss of Injunctions Under* eBay*: Evidence of the Negative Impact on the Innovation Economy*, HUDSON INST.: REPS. (Feb. 28, 2024), https://www.hudson.org/regulation/loss-injunctions-under-ebay-evidence-negative-impact-innovation-economy [https://perma.cc/662A-FAJR].

52. Holte, *supra* note 5, at 719 (finding that "post-*eBay* injunction denial rates have, at a minimum, quadrupled").

53. *See* DOUGLAS LAYCOCK, MODERN AMERICAN REMEDIES: CASES AND MATERIALS 444 (4th ed. 2010) (observing that the four-factor test for preliminary injunctions was what "the Court tried to transfer to permanent injunctions in *eBay*"); Henry E. Smith, *Property as Platform: Coordinating Standards for Technological Innovation*, 9 J. COMPETITION L. & ECON. 1057, 1081 (2013) ("[T]he four-part test of *eBay* . . . is actually based on the test for preliminary relief . . . .").

injunctions, courts have long emphasized the discretionary nature of the remedy and are more cautious since these remedies would be issued before the parties have their full day in court.[54] While preliminary and permanent injunctions are framed in the authorizing legal rules somewhat differently since the 1938 merger of law and equity courts,[55] they are both equitable remedies with similar substantive requirements.[56]

Historically and today, courts have applied the same substantive tests in determining whether to issue preliminary and permanent injunctions. In the past, courts inquired whether there was continuing or willful infringement of a valid patent, and defendants seeking to rebut this presumptive remedy argued balance of the hardship, public interest, or other equitable defenses, such as laches.[57] Today, courts apply the same three substantive factors of balance of the hardship, irreparable injury, and public interest for granting both preliminary and permanent injunctions. Accordingly, if a plaintiff today can obtain a preliminary injunction through the four-factor test, it is reasonable for this same plaintiff to ask the court to apply the same three out of four factors applied by courts post-*eBay* to receive a permanent injunction. Given these parallels, preliminary injunctions are the perfect control to tease out the selection effect: since the *eBay* decision addressed permanent injunctions alone, evidence of the differences between parties who seek preliminary injunctions, but do not seek permanent injunctions informs the dampening impact of *eBay* on permanent injunctions sought.

IV. DATA

This study examines the set of all patent cases filed in the USDCs between 2000 and 2023 in which there was a motion for either a

54. Goodyear v. Dunar, 10 F. Cas. 684, 685 (C.C.D.N.J. 1860) (No. 5570) ("The remedy by [preliminary] injunction, though necessary in certain cases to do complete justice, is nevertheless one which should always be cautiously granted . . . ."); Earth Closet Co. v. Fenner, 8 F. Cas. 261, 264 (C.C.D.R.I. 1871) (No. 4249) ("The law makes the judge's discretion the rule . . . . The judge is bound to decide a question of this kind [on a motion for a preliminary injunction] as . . . the principles of equity and the practice of its courts warrant or dictate . . . .").

55. *See* FED. R. CIV. P. 65(a) (authorizing preliminary injunctions); 35 U.S.C. § 283 (authorizing the award of permanent injunctions).

56. *See* Mossoff, *supra* note 2, at 1597–601 (discussing federal courts sitting in equity adjudicating both preliminary and permanent injunctions).

57. *Id.*; For more analysis of historical equitable remedies for patent infringement, see generally Adam Mossoff, *Injunctions for Patent Infringement: Historical Equity Practice from 1790–1882*, 38 HARV. J. L. & TECH. 921 (2025) (comparing present day and historical equity practice in patent cases).

preliminary or a permanent injunction.[58] In this way, this study significantly extends previous studies by analyzing a set of *all* patent cases filed since 2000 (regardless of whether injunctive relief was granted), rather than studying a specific sample-subset of cases.[59] Given that permanent injunctions are rare, an analysis of the rate of preliminary injunctions is crucial for measuring the impact of the *eBay* decision on injunctions. That is, preliminary injunctions are employed as the control in an examination of the changes to permanent injunctions: if a plaintiff today can obtain a preliminary injunction through the four-factor test, it is reasonable for this same plaintiff to ask the court to apply the same three out of four factors applied by courts post-*eBay* to receive a permanent injunction. Further, this examination attempts to identify whether there was a difference in the likelihood of requesting or obtaining an injunction based on the type of patent plaintiff, operating company or NPE.

In order to analyze injunction outcomes at the case level, data was collected on the outcome and characteristics of each patent case in which a motion for an injunction was sought. Patent case outcome count numbers were also collected to allow for analysis of annual trends in injunction requests and grants. Specifically, this study utilizes data on the total number of patent cases filed each month between January 2000 to December 2023. Data was also collected on the number of preliminary and permanent injunctions sought and granted (Judgement on Merits),[60] by month between 2000 and 2023. All data was collected from Lex Machina, searching only patent cases, and recording the observations for cases filed between the relevant dates.[61]

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58. The author compiled this set of patent cases by searching for all preliminary and permanent injunctions in the Lex Machina database between January 1, 2000, and December 31, 2023. This data collection was done in February and March 2024.

59. To the best of the author's knowledge, to date, no published study has effectively examined the self-selection effect that *eBay* generated. This study does build upon and extend an earlier unpublished paper that utilized data from 2000–2012. Kirti Gupta & Jay P. Kesan, *Studying the Impact of* eBay *on Injunctive Relief in Patent Cases* (Univ. Ill. Coll. L. Legal Stud. Rsch. Paper No. 17-03, July 31, 2016), https://ssrn.com/abstract=2816701 [https://perma.cc/T4YM-ZMLE].

60. Specifically, the data collected represents counts for "Judgement on Merits" and excludes the injunctions recorded by Lex Machina for "Default Judgement" and "Consent Judgement."

61. Using the Lex Machina database, we searched to find and download all of the cases between 2000 and 2023 in which there was a motion for either a preliminary or permanent injunction. The database provided the number of motions for injunctions that were sought/granted/denied for cases that were filed in each month between January 2000 and December 2023. Note that this data is recorded based on the dates that the cases were filed, not the dates on which the motions were filed. This database provided the following pieces of data: Title of the Case, Civil Action Number, Case Type, Court Venue, Type of motion: preliminary or permanent, Whether the motion was granted or denied, Date on which the case was filed, Date on which the last docket was filed, and the Date on which the case was terminated.

This study also considers the plaintiff category, specifically whether the plaintiff is an operating company or an NPE. Given that the Kennedy *eBay* concurrence specifically identified concerns with NPEs, this study examines whether plaintiffs are treated differently based on their category. The data on patent asserter categories utilized in this study was collected from the Stanford NPE Litigation Dataset.[62]

The analysis includes data on three indicators of patent quality utilized in other studies in the economic and legal literature, specifically the total length of the case,[63] the number of claims, and the patent's geographic reach.[64] The length of the case may be a measure of how important the case is for the parties involved.[65] The number of claims may proxy for the expanse of the patent and the geographic reach of the patent may also be correlated with the importance of the patent.[66] Each of these is used as a control for the quality characteristics of patents involved in the case.

Finally, the study utilizes information on the USDC in which each case was heard. A set of indicator variables was created to control for court-specific characteristics and bias. These datasets were collected from Lex Machina.[67] The tables that follow provide summary statistics for each of these components of the dataset.

This analysis also recognizes changes made to the U.S. patent system in 2011.[68] According to the U.S. Government Accountability

62. Miller, *supra* note 42, at 244. This paper provides a complete description of the taxonomy used to create the dataset, as well as information on its construction, and updates. From the Stanford Law School NPE Database: *NPE Litigation Database*, STANFORD PROGRAM IN L., SCI. & TECH. https://npe.law.stanford.edu/ [https://perma.cc/6M2M-GMUS]. I downloaded the complete set of cases, more than 104,000. The database codes the plaintiffs according to thirteen categories. Using this database, we matched the database of cases with motions for injunctions with the cases in the Stanford database. This allowed for the coding of the plaintiffs, using up to three codes/categories. Of the 1759 cases, we were able to code plaintiffs in 1594 cases. A Dolcera consultant was tasked with coding an additional seventy-nine cases. In eighty-six cases the data on the plaintiff category is missing.

63. The length of the case is calculated based on the number of days between the filing and termination dates.

64. Using the Lens.org website, LENS, https://www.lens.org/ [https://perma.cc/2NRZ-U2VE], we searched on the first patent listed by the Stanford database. From this database we collected the following pieces of information: the number of claims and the number of countries listed in the Family Jurisdiction.

65. A 2013 study by the Government Accountability Office found that "some stakeholders said that the potential for large monetary awards from the courts, even for ideas that make only small contributions to a product, can be an incentive for patent owners to file infringement lawsuits," indicating that the monetary awards (importance of the case) may incentivize litigation and, by extension, a willingness to continue litigating. *See* U.S. GOV'T ACCOUNTABILITY OFF., GAO-13-465, INTELLECTUAL PROPERTY: ASSESSING FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY 2 (2013).

66. More valuable or important technologies are more likely to be patented in more countries. Since there is a cost to patent protection in each jurisdiction, patents in additional countries signal the technology is sufficiently valuable to justify the additional cost.

67. Lex Machina, a legal analytics database, was the source of these datasets.

68. Leahy-Smith America Invents Act, Pub. L. No. 112-59, 125 Stat. 284 (2011).

Office, between 2010 and 2011, the number of patent infringement lawsuits in the federal courts increased by approximately a third, likely due to the Leahy-Smith America Invents Act ("AIA").[69] The stark increase in the number of cases filed in 2010 likely occurred as the impact of the AIA was anticipated and is visible in Figure 1.[70]

Table 1 presents an overview of the data, describing preliminary and permanent injunctions: total numbers, percentages, and grant rates, between 2000 and 2023. Table 2 breaks out the data by type of patent plaintiff, pre- and post-*eBay* counts, preliminary and permanent injunctions, and the grant and denial counts of each. Table 3 lists the thirteen categories of plaintiffs and compares the complete Stanford Database to the subset included in this Article. The total share of operating companies in this study is 88%. It is interesting to note that the subset utilized in this Article contains substantially more Operating Companies [category 8: product companies] than the representative share in the Stanford Database: 88% versus 54%. Table 4 provides the distribution of plaintiff categories, delineated by the *eBay* ruling, before and after 2006.[71]

69. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 65, at 1.

70. Recognizing that the changes stemming from the AIA make the data difficult to compare before and after 2011, the analysis that follows explicitly points out where this is an issue to be addressed. This analysis assumes that the changes following the AIA impact the number of cases filed but do not alter the rate at which injunctions are sought or granted. That is, while the magnitude of cases changed, it is assumed that there were no changes in the percentage of cases in which injunctions are sought, nor in the percentage of cases in which injunctions were granted. *Id.* at 1 (noting that the AIA "made several significant changes to the U.S. patent system, including limiting the number of defendants in a lawsuit, causing some plaintiffs that would have previously filed a single lawsuit with multiple defendants to break the lawsuit into multiple lawsuits"); Karl Harris, *Patent Case Trends and the Business of Litigation*, LEX MACHINA: BLOG (Feb. 5, 2015), https://lexmachina.com/blog/patent-case-trends-business-litigation/ [https://perma.cc/R9XP-D64V] ("[T]he AIA's anti-joinder rules make case filing rates from before its enactment in 2011 incomparable with those from afterwords. For example, the AIA's restriction on suing multiple defendants in the same case means that a plaintiff would have to file more patent cases in 2014 than it would have in 2010 to sue the same number of defendants.").

71. All of the figures and tables are based on the author's calculations. The data is on file with the author.

Table 1: Preliminary Injunctions, Permanent Injunctions, Percentages and Grant Rates, 2000–2023

Year	Total Number of Patent Cases Filed	Total Number of Cases with Motions for Permanent Injunctions	Number of Permanent Injunctions Granted	Total Number of Cases with Motions for Preliminary Injunctions	Number of Preliminary Injunctions Granted	Preliminary Injunction Motions as a Percentage of Total Patent Cases Filed	Permanent Injunction Motions as a Percentage of Total Patent Cases Filed	Grant Rate of Permanent Injunctions	Grant Rate of Preliminary Injunctions
2000	2318	46	44	92	36	3.97%	1.98%	95.65%	39.13%
2001	2419	41	38	68	23	2.81%	1.69%	92.68%	33.82%
2002	2531	41	38	79	25	3.12%	1.62%	92.68%	31.65%
2003	2758	30	25	79	26	2.86%	1.09%	83.33%	32.91%
2004	2755	36	32	61	25	2.21%	1.31%	88.89%	40.98%
2005	2494	34	29	64	28	2.57%	1.36%	85.29%	43.75%
2006	2533	47	39	43	17	1.70%	1.86%	82.98%	39.53%
2007	2667	27	26	44	13	1.65%	1.01%	96.30%	29.55%
2008	2351	20	16	33	10	1.40%	0.85%	80.00%	30.30%
2009	2220	23	17	38	18	1.71%	1.04%	73.91%	47.37%
2010	2423	24	23	27	7	1.11%	0.99%	95.83%	25.93%
2011	3250	17	13	30	7	0.92%	0.52%	76.47%	23.33%
2012	5160	20	18	26	7	0.50%	0.39%	90.00%	26.92%
2013	5767	29	25	29	7	0.50%	0.50%	86.21%	24.14%
2014	4710	21	21	27	4	0.57%	0.45%	100.00%	14.81%
2015	5445	14	14	25	7	0.46%	0.26%	100.00%	28.00%
2016	4180	12	11	26	11	0.62%	0.29%	91.67%	42.31%
2017	3657	8	5	37	7	1.01%	0.22%	62.50%	18.92%
2018	3317	14	12	27	11	0.81%	0.42%	85.71%	40.74%
2019	3310	13	11	26	10	0.79%	0.39%	84.62%	38.46%
2020	3722	17	15	47	35	1.26%	0.46%	88.24%	74.47%
2021	3812	6	5	93	71	2.44%	0.16%	83.33%	76.34%
2022	3628	1	1	80	71	2.21%	0.03%	100.00%	88.75%
2023	2827	0	0	117	108	4.14%			92.31%

Table 2: Summary Counts for Injunctions at the Case Level for Preliminary & Permanent, Operating Companies & NPEs, Grants & Denials

Operating Company							
1553							
Pre-*eBay*				Post-*eBay*			
618				935			
Preliminary		Permanent		Preliminary		Permanent	
401		217		655		280	
Grant	Deny	Grant	Deny	Grant	Deny	Grant	Deny
154	247	198	19	353	302	249	31

NPE							
206							
Pre-*eBay*				Post-*eBay*			
87				119			
Preliminary		Permanent		Preliminary		Permanent	
60		27		102		17	
Grant	Deny	Grant	Deny	Grant	Deny	Grant	Deny
15	45	23	4	62	40	8	0

Table 3: Categorization of Plaintiffs ~ Stanford NPE Database and Injunction Subset

Category	**Description**	**Stanford**	**Percentage**	**Subset**	**Percentage**
1	Acquired Patents	23,190	22.26%	28	1.59%
2	University heritage or tie	265	0.25%	1	0.06%
3	Failed startup	712	0.68%	1	0.06%
4	Corporate heritage	997	0.96%	5	0.28%
5	Individual-inventor-started company	11,886	11.41%	42	2.39%
6	University/ Government/ Non-profit	1,246	1.20%	5	0.28%
7	Startup, pre-product	115	0.11%	5	0.28%
8	Product Company	26,010	53.77%	1553	88.29%
9	Individual	7,576	7.27%	104	5.91%
10	Undetermined	37	0.04%	4	0.23%
11	Industry consortium	69	0.07%	0	0.00%
12	IP subsidiary of product company	1,427	1.37%	9	0.51%
13	Corporate-inventor-started company	380	0.36%	2	0.11%
Total		**104,172**	**100%**	**1759**	**100%**

Table 4: Distribution of Plaintiff Categories, Before and After *eBay*

Category	**Description**	**Before *eBay***	**Percentage**	**After *eBay***	**Percentage**
1	Acquired Patents	11	1.56%	17	1.61%
2	University heritage or tie	0	0.00%	1	0.09%
3	Failed startup	0	0.00%	1	0.09%
4	Corporate heritage	4	0.57%	1	0.09%
5	Individual-inventor-started company	24	3.40%	18	1.71%
6	University/ Government/ Non-profit	3	0.43%	3	0.19%
7	Startup, pre-product	1	0.14%	4	0.38%
8	Product Company	618	87.66 %	935	88.71%
9	Individual	41	5.82%	63	5.98%
10	Undetermined	0	0.00%	4	0.38%
11	Industry consortium	0	0.00%	0	0.00%
12	IP subsidiary of product company	3	0.43%	6	0.57%
13	Corporate-inventor-started company	0	0.00%	2	0.19%
Total		**705**	**100%**	**1054**	**100%**

Figure 1 presents an overview of the data for the period January 2000 to December 2023: the total number of patent cases filed, the total number of cases filed with motions for preliminary injunctions, and the total number of cases filed with motions for permanent injunctions. The figure also includes a trend line for the cases with motions for permanent injunctions, revealing the overall pattern present in the data. While the number of cases with a motion for a permanent injunction was declining before the *eBay* decision, the trend continued and was amplified after the *eBay* decision. Figure 2 presents the rate at which injunctions (permanent & preliminary) are sought as a percentage of

total patent cases. Note that the passage of the AIA in 2011 generated a dip in the trend line but the trend line levels off quite quickly. The trend lines indicate that the rate at which injunctions are sought is decreasing for both preliminary and permanent injunctions, and that this trend continues after the AIA went into effect. In Figure 2 it is notable that the two (linear) trend lines are not parallel. The lower dashed trend line which tracks the pattern for permanent injunction motions (solid grey line) appears to be decreasing at a faster rate than the upper dashed trend line which tracks the pattern for preliminary injunction motions (solid black line). If preliminary and permanent injunctions were similarly impacted by the *eBay* decision, we would expect parallel trend lines. Figure 3 presents the share of injunctions that were granted as a percentage of those that were sought. The figure also includes a trendline for permanent injunctions, which is shown to be decreasing.

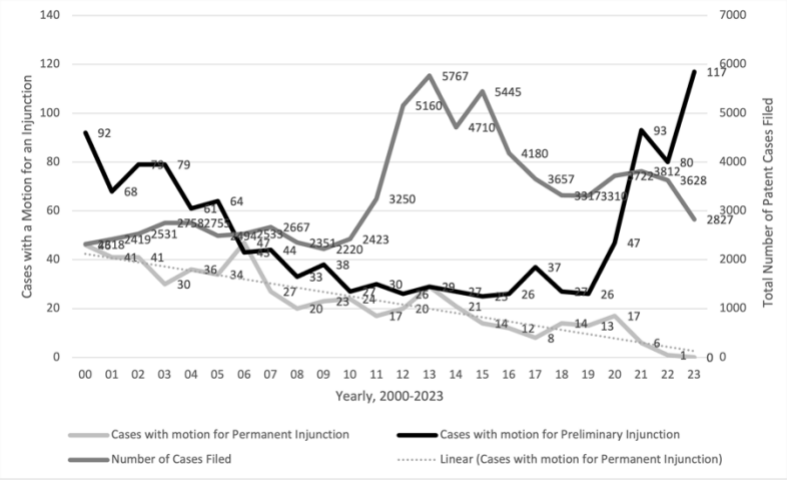

Figure 1: Total Number of Patent Cases Filed, Total Number of Preliminary and Permanent Injunctions Sought, 2000–2023

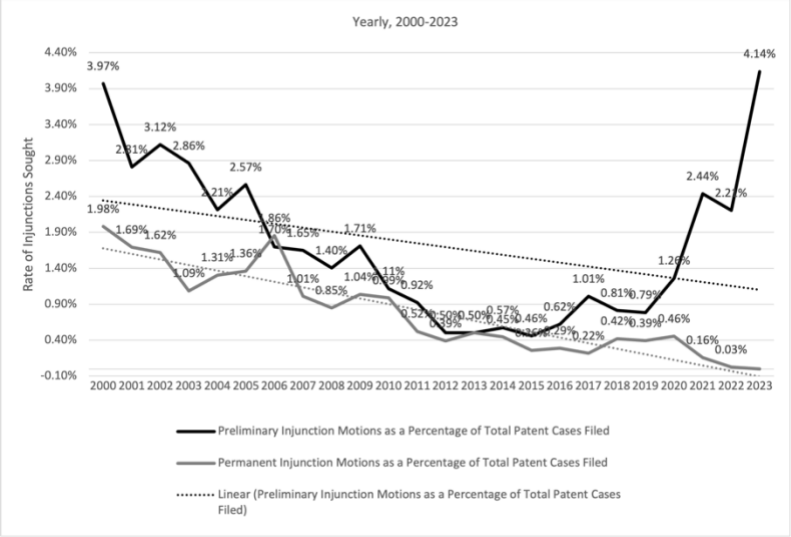

Figure 2: Rate of Injunctions Sought as a Percentage of Total Patent Cases Filed, with Trend Lines

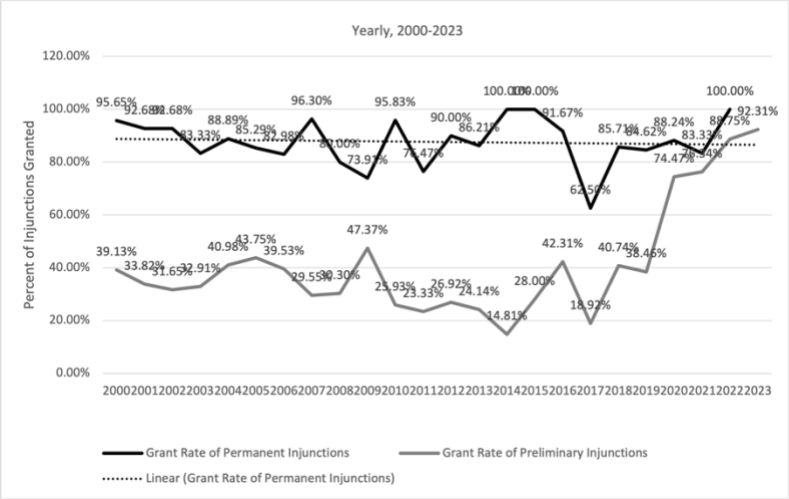

Figure 3: Rate of Injunctions Granted pre-*eBay* and post-*eBay*, as a Percentage of Those Sought

V. Empirical Evidence and Regression Analysis

This study considers two questions: First, did the rate of the seeking and the granting of preliminary and permanent injunctions change due

to the *eBay* ruling? Second, did the ruling differentially affect the granting of injunctive relief based on patent ownership (operating companies versus NPEs)? These questions are initially considered through regression analysis with a linear probability model ("LPM"). However, given that the *eBay* ruling sought to mitigate the frequent granting of permanent injunctions, arguably ones that specifically target NPEs, a difference-in-differences methodology is also employed. The *eBay* decision was an exogenous shock to both operating companies and NPEs. If the *eBay* ruling had a differential impact on NPEs relative to operating companies, the ruling resembles a natural experiment. Consequently, a difference-in-differences model allows for a comparison of the group that was treated (NPEs) relative to the control group that was not (operating companies).

A. Linear Probability Model Analysis

Regression analysis is used to explain the variation in the probability that an injunction will be granted.[72] This was done with an LPM. The LPM regressions enable the evaluation of the binary (0 or 1) dependent variable, indicating whether (or not) the motion for an injunction was granted, based on a set of independent variables. Six different models were utilized in this analysis and each specification includes a different set of the independent variables. This provides a rigorous evaluation of the hypothesized relationships and ensures that the results are consistent across specifications. The use of multiple specifications also serves as a check for any unusual results or unexpected coefficient estimates.

The linear probability model used in the analysis is:

$$P(Y_i=1|X_i)=\alpha + \beta_1*\text{Permanent} + \beta_2*\text{AfterEbay} + \beta_3*\text{NPE} + \beta_4*\text{LogClaims} + \beta_5*\text{LogJurisdiction} + \beta_6*\text{LogLength} + \varepsilon$$

where:

$P(Y_i=1|X_i)$ is the probability that the injunction is granted (1 = granted, 0 = denied),

Permanent is an indicator variable representing whether the motion was for a permanent injunction (*Permanent* = 1, *Preliminary* = 0),

72. The author used the statistical package STATA to complete the regression analysis.

> *AfterEbay* is an indicator variable representing whether the case was filed after the *eBay* decision (after *eBay* = 1, before *eBay* = 0),
>
> and *NPE* is an indicator variable representing whether the plaintiff was an NPE (*NPE* = 1, *Operating Company* = 0).

Each of the six models analyzed provides a different glimpse of the relationships between the dependent and independent variables. All six specifications of the model include the following three indicator variables: whether the motion was for a permanent injunction, *Permanent*, whether the case was filed after *eBay*, *AfterEbay*, and whether the plaintiff was an NPE, *NPE*. In addition, all six specifications include three measures of patent quality: the number of claims in the patent, *Claims,* the geographic scope as measured by the Family Jurisdiction, *Jurisdiction*, and the Length of the case, *Length*.[73]

The differences across the six models are based on whether the district court indicator variables are included and whether interaction terms are included. The odd-numbered models (Models 1, 3, and 5) include the district court indicator variables, while the even-numbered models (Models 2, 4, and 6) do not.[74] The specifications also differ according to the interaction terms that are or are not included. The interaction terms[75] measure the effect of one independent variable on the dependent variable, allowing us to tell whether it varies for different values of another independent variable. For example, the interaction term *NPE*AfterEbay* enables us to determine whether the association between the probability an injunction is granted and being an NPE is dependent on whether it happened before or after the *eBay* decision. Alternatively, the interaction term *Permanent*AfterEbay* enables us to determine whether the association between the probability an injunction is granted and a motion for a Permanent Injunction is dependent on whether it happened before or after the *eBay* decision. The inclusion or exclusion of these two interaction terms, *NPE*AfterEbay* and *Permanent*AfterEbay*, defines the six specifications.

---

73. The log (a monotonic transformation) of each of these variables is utilized in the analysis in order to generate coefficients that explain the impact on probability. When we log an X variable, we can interpret it as a one percent change in X rather than a one-unit change in X.

74. The District Court indicator variables are coded as "1" for those observations in that district, and "0" for all others. Taken together, every observation will have a single "1" indicating the court in which the case was heard.

75. The interaction term is created by multiplying the two indicator variables and adding this to the model. For example, multiplying the *NPE* indicator variable by the *AfterEbay* indicator variable.

Specifically, all six specifications include the three indicator variables and the three measures of patent quality. The differences across the models are:

(1) Model 1 includes *NPE*AfterEbay* and the district court indicator variables

(2) Model 2 includes *NPE*AfterEbay* but omits the district court indicator variables

(3) Model 3 includes *Permanent*AfterEbay* and the district court indicator variables

(4) Model 4 includes *Permanent*AfterEbay* but omits the district court indicator variables

(5) Model 5 includes omits both interaction terms but includes the district court indicator variables

(6) Model 6 includes omits both interaction terms and the district court indicator variables

The results of each of these variations of the LPM are presented in Table 5, below.[76] The models are each run with all observations.[77]

76. It is worth noting that these models were also run with the subset of data for 2000-2012, the years covered in the Gupta and Kesan study. Gupta & Kesan, *supra* note 59. This subset generates the same results, with less explanatory power, a lower adjusted R2.

77. In addition to the regressions presented in this section, the author also ran logistic regressions with the data. The results from those regressions were consistent with those presented here. Given that the results and coefficients of the LPM are more intuitive, those results are presented in Table 5. The results of the Logit regressions are available from the author. The author also conducted this analysis on the subset of cases in which a preliminary injunction was sought, and the subset of cases in which a permanent injunction was sought. These two subsets of regressions were also run with and without the patent quality control variables. The regressions done on the Preliminary Injunction subset had little explanatory power and virtually no variables of any significance. In the case of the regressions done on the Permanent Injunction subset, the specifications that included the controls for patent quality had greater explanatory power. These results are presented in Table 6.

Table 5: Linear Probability Model (LPM) with Log Terms
Regressions Results for All Observations, 2000-2023[78]

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	-0.277*	0.577***	-0.237*	0.566***	-0.236*	0.570***
Permanent	0.554***	0.546***	0.550***	0.552***	0.553***	0.544***
AfterEbay	-0.071**	-0.076**	-0.063	-0.058	-0.060*	-0.063**
NPE	-0.113*	-0.129*	-0.064	-0.069	-0.064	-0.069
NPE*AfterEbay Interaction	0.101	0.119				
Permanent* AfterEbay Interaction			0.007	-0.013		
LogClaims	-0.026	-0.032	-0.025	-0.031	-0.025	-0.030
LogJurisdiction	0.072**	0.073**	0.071**	0.072**	0.071**	0.071**
LogLength	-0.068	-0.060	-0.068	-0.060	-0.068	-0.060
Includes District Court Indicators[79]	Yes	No	Yes	No	Yes	No
Observations	1301	1301	1301	1301	1301	1301
Adjusted R^2	0.323	0.288	0.322	0.286	0.323	0.287

The results generated are consistent across each of the six specifications utilizing all observations and the models demonstrate the following:

(1) The regressions explain between 28.6% and 32.3% of the variation in the relationship between the grant of an injunction and the independent variables, as shown by the adjusted R^2.

78. Variables are identified as having explanatory power as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, representing 95%, 99% and 99.9% confidence levels, respectively.

79. The statistically significant court districts include C.D. Cal., C.D. Ill., D. Ariz., D. Colo., D. Conn., D.D.C., D. Del., D. Haw., D. Idaho, D. Kan., D. Mass., D. Md., D. Me., D. Minn., D. Mont., D. Neb., D. Nev., D.N.H., D.N.J., D. Or., D.R.I., D.S.C., D. Utah, D. Vt., D. Wyo., E.D. Ark., E.D. Cal., E.D. Ky., E.D. La., E.D. Mich., E.D. Mo., E.D.N.C., E.D.N.Y., E.D. Pa., E.D. Tenn., E.D. Tex., E.D. Va., E.D. Wash., E.D. Wis., M.D. Fla., M.D.N.C., M.D. Ga., M.D. Pa., M.D. Tenn., N.D. Ala., N.D. Cal., N.D. Fla., N.D. Ga., N.D. Ill., N.D. Iowa, N.D. Miss., N.D.N.Y., N.D. Ohio, N.D. Okla., N.D. Tex., N.D. W. Va., S.D. Cal., S.D. Fla., S.D. Ill., S.D. Ind., S.D.N.Y., S.D. Iowa, S.D. Ohio, S.D. Tex., W.D. Ky., W.D. La., W.D. Mich., W.D.N.Y., W.D.N.C., W.D. Mo., W.D. Okla., W.D. Pa., W.D. Tenn., W.D. Tex., W.D. Va., W.D. Wash., and W.D. Wis.

(2) The explanatory power of each specification is increased with the inclusion of District Court indicator variables.[80] This suggests that "forum shopping" may be an important factor in case outcomes.

(3) The independent indicator variable *Permanent* is always positive and highly significant, indicating permanent injunctions are more likely to be granted than preliminary injunctions.

(4) The independent indicator variable *AfterEbay* is always negative and is significant in all Models except specifications 3 and 4, indicating that the *eBay* ruling reduced the likelihood of the grant of an injunction.

(5) The independent indicator variable *NPE* is always negative and is significant in specifications 1 and 2, indicating that NPEs are less likely to be granted injunctions than are operating companies.

(6) The independent variables *LogClaims* and *LogLength* are always negative, though neither is ever significant.

(7) The independent variable *LogJurisdiction* is always positive and is significant in every specification of the model, indicating that patenting in additional countries increases the likelihood of the grant of an injunction.

(8) The interaction terms *NPE*After* and *Permanent*After* are not significant in any specification. This indicates that the *eBay* decision did not differentially impact NPEs compared to operating companies (Models 3 and 4), nor did it differentially impact motions for permanent injunctions relative to preliminary injunctions (Models 1 and 2). That is, the *eBay* decision reduced the likelihood of an injunction being granted across both permanent and preliminary injunctions, for both NPEs and operating companies.

The strength of this analysis is evident in the consistency of the results across the variety of specifications. For a detailed interpretation of the coefficients, the results of Model 5 are selected since this specification has the greatest explanatory power. This specification demonstrates that, when controlling for similar characteristics at the case level, the *eBay* decision reduces the likelihood of an injunction being granted. Specifically, the probability of a motion for injunction being granted is reduced by about six percentage points after *eBay*

80. In each case, the comparison of Models 1 and 2, Models 3 and 4, and Models 5 and 6, the adjusted R2 is higher with the inclusion of the District Court indicator variables.

(dummy set to 1), compared to a pre-*eBay* motion (dummy set to 0), all else unchanged. The probability of being granted an injunction is about fifty-five percentage points higher for a permanent injunction (dummy set to 1), than for a preliminary injunction (dummy set to 0), holding all else constant. The indicator variable NPE is not significant, indicating that the likelihood of receiving or being denied an injunction is not explained by the plaintiff's category, NPE or operating company. Finally, an increase of one unit (country) in geographic reach (measured by Family Jurisdiction), increases the probability of the grant of an injunction by approximately seven percentage points. It is worth emphasizing that the magnitudes of the *Permanent* and *AfterEbay* coefficient estimates are consistent across all specifications at about 0.55 and -0.06, respectively, pointing to the rigor of the study and robustness of the results.

In addition to the analysis conducted on the complete set of observations, the regressions were run on two subsets of the data: the subset in which a preliminary injunction was sought, and the subset in which a permanent injunction was sought.[81] The subset of the data for permanent injunctions generated some interesting results and are presented below. Four specifications were considered: with and without the set of District Court indicator variables, as well as versions with and without the *NPE*AfterEbay* interaction term. The results of each of these variations are presented in Table 6.

81. Overall, the regressions on the preliminary injunction subset showed limited explanatory power, and the majority of the coefficients were not significant. Accordingly, those results are not presented here.

Table 6: Linear Probability Model (LPM) with Log Terms Regression Results for the Subset of Observations where Permanent Injunctions were Sought, 2000–2023[82]

Variable	Model 1	Model 2	Model 3	Model 4
Constant	0.937***	1.567***	0.776***	1.614***
AfterEbay	-0.035	-0.057*	-0.061*	-0.084*
NPE	-0.053	-0.096	-0.191*	-0.243**
NPE*AfterEbay Interaction	-0.350*	-0.363*		
LogClaims	-0.030	-0.041	-0.030	-0.044
LogJurisdiction	0.045	0.042	0.046	0.045*
LogLength	-0.198***	-0.187***	-0.208***	-0.196***
Includes District Court Indicators[83]	Yes	No	Yes	No
Observations	512	512	512	512
Adjusted R^2	0.115	0.092	0.098	0.073

The results from the specifications utilizing the subset of permanent injunction observations demonstrate the following:

(1) The regressions explain between 11.5% and 7.3% of the variation in the relationship between the grant of a permanent injunction and the independent variables, as shown by the adjusted R^2. The explanatory power is significantly less than that found in the regressions run on all observations.

(2) The explanatory power is increased with the inclusion of District Court indicator variables.[84] Again, this suggests that "forum shopping" may be an important factor in case outcomes.

(3) The indicator variable *AfterEbay* is always negative and is significant in Models 2, 3 and 4.

82. Variables are identified as having explanatory power as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

83. The statistically significant court districts include C.D. Cal., C.D. Ill., D. Conn., D.D.C., D. Del., D. Haw., D. Kan., D. Mass., D. Md., D. Minn., D. Nev., D.N.H., D.N.J., D. Or., D.S.C., D. Utah, D. Vt., E.D. La., E.D. Mich., E.D. Mo., E.D. Tex., E.D. Wis., M.D. Fla., M.D.N.C., M.D. Tenn., N.D. Ala., N.D. Cal., N.D. Ill., N.D. Iowa, N.D.N.Y., N.D. Ohio, N.D. Okla., N.D. Tex., N.D. W. Va., S.D. Fla., S.D. Ind., S.D. Iowa, S.D.N.Y., S.D. Ohio, S.D. Tex., W.D. Mich., W.D. Mo., W.D.N.Y., W.D. Okla., W.D. Pa., W.D. Tenn., W.D. Tex., W.D. Wash., and W.D. Wis.

84. In each case, the comparison of Models 1 and 2, Models 3 and 4, and Models 5 and 6, the adjusted R2 is higher with the inclusion of the District Court indicator variables.

(4) The indicator variable *NPE* is always negative and is significant in Models 3 and 4.

(5) The variables *LogClaims* and *LogLength* are always negative, and *LogLength* is significant in every specification.

(6) The variable *LogJurisdiction* is always positive though it is only significant in Model 4.

(7) The interaction term *NPE*AfterEbay* is significant when included, in Models 1 and 2.

B. Difference-in-Differences Analysis

In addition to the LPM regressions, multiple difference-in-differences ("DiD") regressions were also analyzed to assess the causal effect of the *eBay* ruling.[85] Since the *eBay* decision specifically identified concerns with NPEs, an analysis of the impact of the decision across NPEs and operating companies allows for an evaluation of whether the decision differentially impacted different categories of plaintiffs, comparing the treatment group (NPEs) to the control group (operating companies).[86] This was done by regressing the percent of total patent cases in which an injunction was sought (the dependent variable), on the category of plaintiff, whether the case was filed before or after *eBay*, and an interaction term.[87] Further, since the ruling only impacted permanent injunctions, the analysis was also done to examine whether the *eBay* decision differentially impacted the two types of injunctions: permanent (treated) and preliminary (control). The results

85. DiD regression analysis is traditionally used to estimate the effect of a specific intervention or treatment, for example the passage of law, enactment of policy, or implementation of a program. This is done by comparing the changes in outcomes over time between a population that is enrolled in a program (the treatment group) and a population that is not (the control group). In absence of treatment, the unobserved differences between treatment and control groups are the same over time. The method is known as the 'controlled before-and-after study' in some social sciences. *See* LISA HARTLING, KENNETH BOND, KRYSTAL HARVEY, P. LINA SANTAGUIDA, MEERA VISWANATHAN & DONNA M. DRYDEN, AGENCY FOR HEALTHCARE RSCH. & QUALITY, DEVELOPING AND TESTING A TOOL FOR THE CLASSIFICATION OF STUDY DESIGNS IN SYSTEMATIC REVIEWS OF INTERVENTIONS AND EXPOSURES G-3 (2010) ("[In a controlled before-after study,] the outcome(s) of interest is measured both before and after the intervention or exposure in two or more groups of individuals. In this study design the study group receives the intervention or exposure and the comparison group(s) does not. This type of study includes interventions that may be in the control of the investigator (e.g., a surgical procedure) as well as interventions that may be an environmental variable (e.g., airborne toxin) or administrative assignment (e.g., seatbelt legislation). In all cases the investigator(s) controls the timing of the measurement and the variables being measured.").

86. Again, it is important to note that this study does not differentiate between the different categories of NPEs. Due to an insufficient number of observations across plaintiff categories, it was impossible to tease out any differences.

87. The specification of the regression was: Sought/Total = α + β1*Permanent + β2*AfterEbay + β3*PermxAfter + ε.

of the difference-in-differences regressions are presented below in Table 7. Models 1 and 2 utilize the injunction type as the treatment (permanent) and control (preliminary), while Models 3, 4, and 5 utilize the plaintiff type as the treatment (NPE) and control (operating company).

Table 7: Difference-in-Differences ("DiD") Model Results[88]

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Dependent Variable	Share of Cases in which Injunctions are Sought	Share of Cases in which Injunctions are Sought **by OpCos**	Share of Cases in which **Permanent** Injunctions are **Sought**	Share of Cases in which **Preliminary** Injunctions are **Sought**	Share of Cases in which **Permanent** Injunctions are **Granted**
Constant	2.749***	2.403***	1.376***	2.403***	1.254***
AfterEbay	-1.448***	-1.279***	-0.902***	-1.279***	-0.836***
Permanent	-1.19***	-1.027***			
NPE			-1.193***	-2.056***	-1.117***
PermxAfter	0.387	0.377			
NPExAfter			0.742***	1.111***	0.711***
Observations	47	47	47	47	47
Adj R^2	0.568	0.565	0.841	0.677	0.826

Model 1: The dependent variable in this specification is the (annual) percentage of cases in which an injunction is sought. The results reveal that interaction term, *PermxAfter*, is not statistically significant. That is, the *eBay* ruling did not have a differential impact on seeking permanent injunctions relative to preliminary injunctions. The coefficients indicate that permanent injunctions are sought less frequently, and that the *eBay* decision negatively impacted both types of injunctions, reducing the share of cases in which they are sought. The regression explains 56.8% of the variation in the annual percentage of cases in which an injunction is sought.

88. Variables are identified as having explanatory power as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Model 2: This specification examines a subset of the data, the percentage of cases in which an injunction is sought in which the plaintiff is an operating company. Again, the regression reveals that interaction term, *PermxAfter*, is not statistically significant, indicating that the *eBay* ruling did not have a differential impact on permanent injunctions sought relative to preliminary injunctions sought. And, again, the *eBay* decision negatively impacted both types of injunctions, reducing the share of cases in which they are sought. The regression explains 56.8% of the variation in the annual percentage of cases in which an injunction is sought by an operating company.

Model 3: The dependent variable in this specification is the annual percentage of cases in which permanent injunctions are sought, across NPEs and operating companies. In this specification the interaction term, *NPExAfter*, is positive and statistically significant, indicating that the *eBay* decision impacted plaintiffs seeking permanent injunctions differently, depending on the category of plaintiff. Given that the baseline difference between NPEs and operating companies is substantial, the results are relative to the baseline of the type of entity evaluated.[89] This specification shows that the decrease from the NPE baseline is 87.4%, compared to a decrease for operating companies of 65.5%, from their baseline.[90] The relative drop from the relevant baseline is larger for NPEs than for operating companies. That is, in seeking permanent injunctions, the *eBay* ruling impacted NPEs relatively more than operating companies. The regression explains 84.1% of the variation in the annual percentage of cases in which a permanent injunction is sought.

Model 4: The dependent variable in this specification is the annual percentage of cases in which preliminary injunctions are sought, across NPEs and Operating Companies. As expected, the baselines are higher in this specification (preliminary injunctions), relative to Model 3 (permanent injunctions), across both categories of plaintiffs. Again, in this specification the interaction term, *NPExAfter*, is positive and statistically significant, indicating that the *eBay* decision differentially impacted different types of plaintiffs seeking preliminary injunctions. That is, the decrease from the NPE baseline is 48.4%, compared to a decrease for operating companies of 53.2%, from their baseline.[91] The

89. Specifically, the baseline for operating companies is 1.376, meaning that in 1.376% of all patent cases an operating company seeks a permanent injunction, while the baseline for NPEs is 0.183. The impact of the *eBay* ruling is calculated relative to these "starting points" so as not to distort the comparison.

90. This is calculated by comparing: (-0.902 + 0.7424)/(1.376 - 1.193), which is a decrease (for NPEs) of about 87.4% (from the NPE baseline), to the ratio (-0.902)/(1.376), which is a decrease (for operating companies) of about 65.5% (from the operating company baseline).

91. This is calculated by comparing: (-1.279 + 1.111)/(2.403 – 2.056), which is a decrease (for NPEs) of about 48.4% (from the NPE baseline), to the ratio (-1.279)/(2.403), which is a decrease (for operating companies) of about 53.2% (from the operating company baseline).

relative drop from the relevant baseline is larger for operating companies than it is for NPEs. The regression explains 67.7% of the variation in the annual percentage of cases in which a preliminary injunction is sought.

Model 5: The dependent variable in this specification is the annual percentage of cases in which permanent injunctions are granted, across NPEs and operating companies.[92] In this specification the interaction term, *NPExAfter*, is positive and statistically significant, indicating that the *eBay* decision impacted the grant rate of permanent injunctions differently, depending on the category of plaintiff. This specification shows that the decrease from the NPE baseline is 91.2%, compared to a decrease for operating companies of 66.7%, from their baseline.[93] The relative drop from the relevant baseline is significantly larger for NPEs than for operating companies. That is, in the grants of permanent injunctions, the *eBay* ruling impacted NPEs relatively more than operating companies. The regression explains 82.6% of the variation in the annual percentage of cases in which a permanent injunction is sought.

Considered together, the results of the LPM and DiD models are quite compelling. Within the DiD analysis, Model 1 reveals that the *eBay* decision negatively impacted motions for *both* preliminary (unexpectedly) and permanent injunctions, a result that is confirmed in Models 3 (permanent injunctions) and in Model 4 (preliminary injunctions). One would expect that permanent injunctions would be impacted by the decision, since they were the focus of the decision. Preliminary injunctions were not addressed in the *eBay* decision, so it is striking that they were also negatively impacted. The results of Model 5 also show the *eBay* ruling differentially reduced the share of cases in which a permanent injunction is *granted*. On the one hand, this is not surprising, since a reduction in the percent of cases in which an injunction is sought will logically lead to a reduction in the percentage of cases in which an injunction is granted. However, it is consistent with the findings in the LPM regressions, which established that — *at the level of the patent case* — the likelihood of being granted an injunction was reduced after the *eBay* decision, a more striking result.

This study set out to answer two questions: First, did the rate of seeking and the granting of preliminary and permanent injunctions change due to the *eBay* ruling? The answer is "yes." The results of the

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92. A specification was also run to examine the annual percentage of cases in which Preliminary Injunctions are granted, across NPEs and operating companies. The results revealed that neither the independent variable *AfterEbay*, nor the interaction term *NPExAfter*, were statistically significant. In addition, the model explained significantly less of the variation, with an adjusted R2 of just 0.249.

93. This is calculated by comparing: (-0.836 + 0.711)/(1.254 - 1.117), which is a decrease (for NPEs) of about 91.2% (from the NPE baseline), to the ratio (-0.836)/(1.254), which is a decrease (for operating companies) of about 66.7% (from the operating company baseline).

LPM regressions establish that the *eBay* decision reduced the likelihood of both preliminary and permanent injunctions being granted. Models 3 and 4 reveal that the interaction term is not statistically significant, indicating that there is no difference between the impact on the two types of injunctions. The results of Model 5 of the DiD regressions also establish, for permanent injunctions, that the *eBay* decision reduced the share of patent cases in which a permanent injunction was granted. In terms of motions sought, the results of Models 1, 2, 3, and 4 of the DiD analysis reveal that the *eBay* ruling reduced the annual percent of patent cases in which a motion for an injunction was sought.

Second, did the ruling differentially affect the granting of injunctive relief based on patent ownership between operating companies and NPEs? This question is of particular interest since the *eBay* ruling sought to mitigate the frequent granting of permanent injunctions, arguably ones that specifically target NPEs. Again, the empirical analysis answers the question affirmatively. Within the DiD regressions, Models 3, 4, and 5 demonstrate that the *eBay* ruling differentially impacted NPEs relative to operating companies. In the context of permanent injunctions, Model 3 (sought) and Model 5 (granted) indicate that NPEs experienced a *relatively* larger percentage decrease as a share of annual patent cases. However, when considering motions for a preliminary injunction, the decrease is *relatively* larger for operating companies. This last result indicates the self-selection effect is indeed in play. Not only did the *eBay* decision result in operating companies scaling back their requests for permanent injunctions, but these companies are also shown to have scaled back their requests for *preliminary* injunctions. Both suggest that injunctions that were worth seeking pre-*eBay* are no longer sought due to the change in the legal environment.

VI. ECONOMIC CONSEQUENCES

The Supreme Court's decision in *eBay Inc. v. MercExchange, L.L.C.* significantly lowered the "frequency with which courts grant injunctive relief . . . [t]hus, patent holders found the value of their greatest bargaining chip greatly diminished."[94] Carlton asserts that the threat of permanent injunctive relief is sufficiently powerful that the removal of the threat would result in patentees being "*systematically undercompensated*."[95] In assessing the curtailment of injunctive relief, Carlton argues it has a strong net chilling effect on the ability of patent holders to retain leverage in the bargaining process, thereby reducing

94. Peterson, *supra* note 44, at 193.

95. Tim Carlton, *The Ongoing Royalty: What Remedy Should a Patent Holder Receive When a Permanent Injunction Is Denied?*, 43 GA. L. REV. 543, 548 (2009) (emphasis added).

the value of patents because enforcement becomes less predictable.[96] Carlton concludes that the absence of a credible threat of injunctive relief significantly complicates negotiations and argues that the lack of a credible threat encourages litigation where licensing negotiation would once have been sufficient.[97]

Patent litigation decisions have established the importance of injunctions as an "essential backstop in the efficient functioning of markets."[98] As a remedy for infringement, injunctions serve an essential economic function, facilitating commercial transactions in intellectual property.[99] Accordingly, without injunctive relief, the deterrent to infringement is removed, impairing the operation of efficient markets and the negotiations of fair market value. Parties wishing to license technology no longer have an incentive to negotiate in good faith, or at all. Some empirical studies confirm that reduced legal protection may result in "predatory infringement."[100] Predatory infringement occurs when a party, recognizing that they are unlikely to be enjoined, decides to infringe with an understanding that there is a risk that they will be ordered to pay at some future date.[101]

Infringing manufacturers may knowingly use other companies' patent rights, and such behavior is more likely without the specter of a permanent injunction.[102] Patent holdup is more likely without a permanent injunction since the expected cost of infringement is reduced with that remedy effectively being off the table.[103] The uncertainty surrounding patent litigation is also reduced, making infringement a more attractive, and potentially more profitable, strategy. As a result, the absence of injunctive relief distorts the market for patents, devaluing patents as an asset class.[104] In effect, the patent is worth less

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96. *Id.*

97. *Id.* at 570. This may be particularly true where the infringer assesses the patent to be weak and thinks it can limit its costs to the price of litigation. *See* Golden, *supra* note 23, at 2128–29.

98. *See* Mossoff, *supra* note 2, at 1584.

99. *See generally supra* note 48 and accompanying text.

100. *See, e.g.*, Kirti Gupta & Urska Petrovcic, *Evidence of Systematic "Patent Holdout"*, 38 BERKELEY TECH. L.J. 575, 584–85 (2023); Bowman Heiden & Nicolas Petit, *Patent "Trespass" and the Royalty Gap: Exploring the Nature & Impact of Patent Holdout*, 34 SANTA CLARA HIGH TECH. L.J. 179, 230–39 (2018).

101. *See* Kristen Osenga, *"Efficient" Infringement and Other Lies*, 52 SETON HALL L. REV. 1085 (2022).

102. The loss of the credible threat of injunction against infringing use may compromise the position of a patentee in licensing negotiations. *See* Golden, *supra* note 23, at 2125 ("Licensing agreements are likely to be shaped by the concerns and expectations of both patent holders and infringers . . . ."). Professor Golden models the risk/benefit analysis of a would-be infringer mathematically by determining the "expected cost" of an infringement suit, which incorporates the "expected cost of complying with a permanent injunction . . . ." *Id.* at 2127.

103. *See id.*

104. *See* KRISTIN JACOBSON OSENGA, THE LOSS OF INJUNCTIONS UNDER EBAY: EVIDENCE OF THE NEGATIVE IMPACT ON THE INNOVATION ECONOMY 5 (2024).

because the patent holder is no longer able to stop violations of their property rights. Intuitively, the "licensee is purchasing *fewer* rights, because the right to exclude is no longer one that the patent owner can offer for sale."[105] Not surprisingly, this intuition is confirmed in a recent empirical study. The Association of University Technology Managers examined the purchases of university patent licenses, comparing exclusive and non-exclusive license purchases between 1996 and 2020.[106] As it provides the exclusive right to make, use, or sell something, an exclusive license is more valuable than a non-exclusive license, in which the technology is available to multiple parties who may then compete in the market.[107] Prior to *eBay*, the issuances of exclusive and non-exclusive licenses were similar. Following *eBay*, the issuance of non-exclusive licenses has increased tremendously while the issuance of exclusive licenses has remained constant.[108] "Academic technology transfer is predicated on the ability of academic institutions to protect their nascent intellectual property to allow for licensees to invest and bring the invention to market. Recent patent rights erosion is tilting this balance and has resulted in fewer companies licensing academic inventions."[109]

Fundamentally, a key function of an injunction is to ensure the efficient operation of markets and enable the determination of fair market value by market actors. The threat of an injunction provides the patent holder with the ability to refuse a license at a price they deem to be unfair. Injunctions are the backstop for negotiations, ensuring voluntary exchanges and preventing coerced transactions in which "prices" are determined after the fact by judges or regulators.[110]

VII. CONCLUSIONS

This study examines the consequences of the Supreme Court's 2006 decision in *eBay Inc. vs. MercExchange, L.L.C.*, focusing on the ruling's impact on motions for and grants of injunctive relief. Justice Kennedy's concurrence linked the rejection of a general rule regarding permanent injunctions to concerns surrounding NPEs. Accordingly, this study considered the question of whether the courts provide differential treatment across operating companies and NPEs.

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105. *See* OSENGA, *supra* note 104, at 5.

106. *See* ASSOCIATION OF UNIVERSITY TECHNOLOGY MANAGERS, AUTM 2020 LICENSING ACTIVITY SURVEY 15. https://autm.net/surveys-and-tools/surveys/licensing-survey/2020-licensing-survey [https://perma.cc/Z6TK-RPEB].

107. *See* JORGE L. CONTRERAS, INTELLECTUAL PROPERTY LICENSING AND TRANSACTIONS: THEORY AND PRACTICE 176 (2022).

108. *See* ASS'N UNIV. TECH. MANAGERS, *supra* note 106, at 15.

109. *See id.* at 4.

110. *See* OSENGA, *supra* note 104, at 2.

The changes put in motion by the *eBay* decision negatively impacted injunctions both sought and granted and resulted in differential treatment across plaintiff categories. The *eBay* ruling reduced the annual percent of patent cases in which a motion for an injunction was sought and reduced the annual percentage of patent cases in which permanent injunctions were granted. At the individual patent case level, the ruling diminished the likelihood of grants of *both* preliminary and permanent injunctions. Moreover, the impacts on permanent injunctions were relatively larger for NPEs.

The importance of this distinction rests in the bargaining power of patent holders. Given that operating companies are favored in terms of the likelihood of being granted a permanent injunction, NPEs thus have reduced bargaining power in both litigation and licensing negotiations. Accordingly, penalizing the broad class of "non-manufacturing" patent holders may not be optimal, as many truly innovative research-oriented, non-manufacturing firms, inventors, and university labs operate in high-tech markets today. Again, given the diverse entities often included in this term, this consideration is especially important.

This study demonstrates that the consequences of the *eBay* ruling have been more wide-reaching than perhaps intended, impacting not only permanent injunctions, as envisioned, but also preliminary injunctions. The analysis also has important implications for patent legislative reform intended to curb patent litigation by NPEs. If innovative research is valued, no matter the source or developer, then systematically disadvantaging NPEs may be suboptimal. As such, the impact of *eBay* should be reevaluated and public rhetoric about the insidious nature of NPEs, so-called "patent trolls," reconsidered.