

# ARE THERE AS MANY TRADEMARK OFFICES AS TRADEMARK EXAMINERS?\*

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## ABSTRACT

*Federal trademark-registration rights have grown in import, and trademark owners have taken notice. In the fiscal year of 2018, over 660,000 federal trademark registration applications were filed with the U.S. Patent & Trademark Office (“Trademark Office”), representing a 60 percent increase from a decade prior. Yet despite the fact that there is growing concern that the Trademark Office is routinely issuing inconsistent trademark determinations, systematic empirical studies of the administrative process of obtaining federal registration rights are virtually nonexistent. This Article begins to close this gap by conducting the first large-scale study of trademark officials, known as trademark-examining attorneys, who make the initial determination on whether to accept or decline a federal trademark registration. Utilizing a novel dataset comprising over 7.8 million trademark applications, this Article examines the extent to which trademark-examining attorneys’ determinations differ from one another. We find substantial heterogeneity in Trademark Office outcomes. Trademark-examining attorneys have wildly divergent publication rates and registration rates even while controlling for a range of characteristics of the applications. The duration of time an application is before the Trademark Office*

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\* In an influential article, Professors Iain Cockburn, Samuel Kortum, and Scott Stern demonstrated substantial variations across certain important outcomes of the Patent Office. Cockburn and his colleagues quoted an informant in the Agency as saying that “[t]here may be as many patent offices as there are patent examiners,” a quote inspiring the title of the present Article, which tracks examiner heterogeneity on the trademark side of the Agency. See Iain M. Cockburn, Samuel Kortum & Scott Stern, *Are All Patent Examiners Equal? Examiners, Patent Characteristics, and Litigation Outcomes*, in *Patents in the Knowledge-Based Economy* 19, 28 (Wesley M. Cohen & Stephen A. Merrill eds., 2003).

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#### INTRODUCTION

In the past decade, the U.S. Patent & Trademark Office (the “Trademark Office” or “Agency”) has managed to jostle its way from the legal periphery into the mainstream. For example, the Agency made national headlines in 2014 when it canceled the Washington Redskins’ federal registration of the REDSKINS trademark, finding that the term was disparaging to a considerable composite of Native Americans.<sup>1</sup> The Trademark Office continued to gain traction in 2015,

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1. *Blackhorse v. Pro-Football, Inc.*, 111 U.S.P.Q.2d (BNA) 1080, 1082 (T.T.A.B. 2014); see Ken Belson & Edward Wyatt, *Redskins Lose Ruling on Trademarks, but Fight Isn’t Over*, N.Y. TIMES (June 18, 2014), <https://www.nytimes.com/2014/06/19/sports/football/us-patent-office-cancels-redskins-trademark-registration.html> [<https://perma.cc/Y4GU-Z9JL>]; Jacob Gershman, Ashby Jones & Kevin Clark, *U.S. Patent Office Cancels Washington Redskins Trademarks*, WALL

when the Supreme Court substantially elevated the impact of the Trademark Office's determination to uphold or deny federal registration of a mark by holding that the Agency's decision could have preclusive effect on a later infringement action involving the same mark.<sup>2</sup> In that same year, the significance of the Trademark Office's decisions was further enhanced by federal courts suggesting that the denial of federal registration to a mark forecloses the possibility of pursuing a federal unfair competition claim under the Lanham Act—meaning only state law protection would remain.<sup>3</sup> Finally, in 2017 and 2019, the Agency made more headlines when the Supreme Court held that the Trademark Office's application of the ban on registering disparaging marks and scandalous or immoral marks was unconstitutional.<sup>4</sup>

The growing import of federal registration of trademarks has not been lost on trademark owners. As of the end of the 2018 fiscal year, there were a staggering 2.4 million active federal trademark registrations in the United States.<sup>5</sup> During that same year, 660,000

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ST. J. (June 14, 2014, 8:26 PM), <https://www.wsj.com/articles/u-s-patent-office-cancels-washington-redskins-trademarks-1403103213> [<https://perma.cc/ZK99-7G5Z>]; Theresa Vargas, *U.S. Patent Office Cancels Redskins Trademark Registration, Says Name Is Disparaging*, WASH. POST (June 18, 2014), [https://www.washingtonpost.com/local/us-patent-office-cancels-redskins-trademark-registration-says-name-is-disparaging/2014/06/18/e7737bb8-f6ee-11e3-8aa9dad2ec039789\\_story.html](https://www.washingtonpost.com/local/us-patent-office-cancels-redskins-trademark-registration-says-name-is-disparaging/2014/06/18/e7737bb8-f6ee-11e3-8aa9dad2ec039789_story.html) [<https://perma.cc/G5HK-AD84>]. The decision actually canceled six Redskins registrations associated with football services that were filed from 1967 to 1990. *Blackhorse*, 111 U.S.P.Q.2d (BNA) at 1082–84. The *Blackhorse* decision was rendered moot by the U.S. Supreme Court decision in *Matal v. Tam*, 137 S. Ct. 1744 (2017).

2. See *B & B Hardware, Inc. v. Hargis Indus., Inc.*, 575 U.S. 138, 160 (2015).

3. See *infra* note 11.

4. See *Iancu v. Brunetti*, 139 S. Ct. 2294, 2297 (2019) (holding that the Lanham Act's provision prohibiting the registration of immoral or scandalous trademarks violated the First Amendment); *Matal*, 137 S. Ct. at 1751 (same); Sarah Jeong, *Should We Be Able to Reclaim a Racist Insult—as a Registered Trademark?*, N.Y. TIMES MAG. (Jan. 17, 2017), <https://www.nytimes.com/2017/01/17/magazine/should-we-be-able-to-reclaim-a-racist-insult-as-a-registered-trademark.html> [<https://perma.cc/4HMZ-H77W>]; Adam Liptak, *Supreme Court Strikes Down Law Barring Vulgar Trademarks*, N.Y. TIMES (June 24, 2019), <https://www.nytimes.com/2019/06/24/us/politics/supreme-court-vulgar-trademarks-foia.html> [<https://perma.cc/L2PZ-78LG>]; Diana Michele Yap, *He Named His Band the Slants to Reclaim a Slur. Not Everyone Approved.*, WASH. POST (May 16, 2019, 9:00 AM), [https://www.washingtonpost.com/entertainment/books/he-named-his-band-the-slants-to-reclaim-a-slur-not-everyone-approved/2019/05/15/b939275a-700d-11e9-8be0-ca575670e91c\\_story.html](https://www.washingtonpost.com/entertainment/books/he-named-his-band-the-slants-to-reclaim-a-slur-not-everyone-approved/2019/05/15/b939275a-700d-11e9-8be0-ca575670e91c_story.html) [<https://perma.cc/RA8M-E84T>].

5. See U.S. PATENT & TRADEMARK OFFICE, FISCAL YEAR 2019 PERFORMANCE AND ACCOUNTABILITY REPORT 181 tbl.15 [hereinafter 2019 PERFORMANCE AND ACCOUNTABILITY REPORT] (noting that there were 2,415,550 active certificates of registration for trademarks in 2018).

federal registration applications were filed with the Trademark Office—a 60 percent increase from a decade prior.<sup>6</sup> Yet despite the increasing significance of federal registration rights, there is growing concern that the Agency is routinely issuing inconsistent trademark determinations. Consider, for example, the recent controversy associated with the Trademark Office’s review of the mark “The Vegan Butcher.”<sup>7</sup> The Agency refused Herbivorous Butcher’s trademark-registration application for the mark “The Vegan Butcher” for meat substitutes on the grounds it was merely descriptive.<sup>8</sup> Shortly thereafter, a different trademark official at the Trademark Office approved Sweet Earth Foods’s federal registration application for the same mark for the same goods.<sup>9</sup> Examples like this suggest that the Trademark Office’s decision to grant a federal trademark registration is driven not only by the merits of the application but also by the proclivities of the trademark official to whom the application is randomly assigned.

Despite anecdotal evidence that trademark-registration requirements are being inconsistently applied across trademark officials, systematic empirical studies of the administrative process behind obtaining federal registration rights are virtually nonexistent.<sup>10</sup> This Article begins to close this gap in the literature by conducting the first large-scale study of trademark officials, known as trademark-examining attorneys, who make the initial determination on whether to accept or decline a federal trademark registration.

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6. See *id.* (noting that the Trademark Office registered 367,382 trademark applications and 273,808 applications were abandoned); *id.* at 182 tbl.16 (stating that the Trademark Office received 401,392 trademark registration applications in 2008 and 638,847 trademark registration applications in 2018).

7. See Jelisa Castrodale, *America’s First ‘Vegan Butcher’ Is Fighting Nestle Over the Term’s Trademark*, VICE (Dec. 3, 2019, 6:07 PM), [https://www.vice.com/en\\_us/article/7x5g3a/americas-first-vegan-butcher-is-fighting-nestle-over-the-terms-trademark](https://www.vice.com/en_us/article/7x5g3a/americas-first-vegan-butcher-is-fighting-nestle-over-the-terms-trademark) [https://perma.cc/58SU-YESJ]; Mark Reilly, *Feds Told Herbivorous Butcher ‘No’ on Trademark, but Gave It to Nestlé*, MINNEAPOLIS/ST. PAUL BUS. J. (Nov. 18, 2019, 8:19 AM), <https://www.bizjournals.com/twincities/news/2019/11/18/feds-told-herbivorous-butcher-no-on-trademark-but.html> [https://perma.cc/P5EU-LD88].

8. *Id.*

9. *Id.*

10. See Stuart J.H. Graham, Galen Hancock, Alan C. Marco & Amanda Fila Myers, *The USPTO Trademark Case Files Dataset: Descriptions, Lessons, and Insights*, 22 J. ECON. & MGMT. STRATEGY 669, 671 (2013) (noting that empirical “studies using U.S. administrative [trademark] data remain scarce”). In fact, trademark literature more generally has tended to ignore the role of trademark registration. See Rebecca Tushnet, *Registering Disagreement: Registration in Modern American Trademark Law*, 130 HARV. L. REV. 867, 870–71 (2017) (“Foundational critiques of modern trademark law tend not to address the role of registration.”).

Utilizing a novel dataset comprising over 7.8 million trademark applications, this Article examines the extent to which trademark-examining attorneys' determinations differ from one another. We find substantial heterogeneity in Trademark Office outcomes. Namely, trademark-examining attorneys have wildly divergent publication rates and registration rates even while controlling for a range of application characteristics.<sup>11</sup> Moreover, the duration of time an application is before the Trademark Office also varies considerably among trademark-examining attorneys as does whether a filed opposition is sustained.

The above results are concerning for several reasons. To begin, the fact that there are substantially divergent registration rates among trademark-examining attorneys is highly suggestive that the Trademark Office is regularly getting the decision to grant or deny registration wrong. The trademark-registration standards are set to generally track the economic justifications for trademarks, which are to decrease consumer search costs without overly restricting certain marketplace competition while securing for the mark's owner the goodwill of her business.<sup>12</sup> As a result, if trademark-examining attorneys are routinely denying registrations on valid marks, then the Trademark Office is depriving the most worthy applications of the substantial expansion in rights associated with federal registration.

Alternatively, if trademark-examining attorneys are registering invalid trademarks, these trademarks may impose the costs of additional federal registration rights on society without producing any of the benefits. Moreover, because trademark-registration determinations can become "incontestable," which limits the grounds upon which the mark's validity may be challenged in trademark-infringement litigation, the application of the trademark-registration

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11. There is some disagreement as to whether a mark that is denied federal registration can be enforced as an unregistered mark under § 43(a), the unfair competition claim section of the Lanham Act. Recently, a district court decision held that marks barred from registration could not be enforced under § 43(a). *See* *Renna v. County of Union*, 88 F. Supp. 3d 310, 321 (D.N.J. 2014). And at least one Federal Circuit judge has also taken this position. *See In re Tam*, 785 F.3d 567, 576 (Fed. Cir. 2015) (Moore, J., concurring) ("Equally clear, however, is that § 43(a) protection is only available for unregistered trademarks *that could have qualified for federal registration*."). Nevertheless, several trademark scholars suggest otherwise. *See, e.g.*, Mark P. McKenna, *The Implications of Blackhorse v. Pro-Football, Inc.*, PATENTLY-O (June 19, 2014), <https://patentlyo.com/patent/2014/06/implications-blackhorse-football.html> [<http://perma.cc/N6LY-QZCR>].

12. *See* Melissa F. Wasserman, *What Administrative Law Can Teach the Trademark System*, 93 WASH. U. L. REV. 1511, 1520–21 (2016).

requirements matter beyond the mere grant of additional registration rights.<sup>13</sup> Thus, if the Trademark Office incorrectly granted the federal trademark application on “The Vegan Butcher” because the mark merely describes meat substitutes, then Sweet Earth Foods would be able to unfairly burden new entrants’ ability to communicate with consumers in the marketplace.<sup>14</sup>

Irrespective of concerns with the quality of examination, inconsistent Trademark Office decisions also raise issues about equity. The dominant theories of administrative justice, such as Professor Jerry Mashaw’s theory of “bureaucratic rationality,” hold that uniformity in agency outcomes is an important goal.<sup>15</sup> This concern is also implicated in the “The Vegan Butcher” example, as the attorney for Herbivorous Butcher was quick to point out “[i]f it’s merely descriptive for us, then it should be merely descriptive for [Sweet Earth Foods].”<sup>16</sup> Finally, to the extent that trademark-registration decisions are being driven by the idiosyncratic views of the trademark-examining attorney reviewing the application, rendering the registration of trademarks arbitrary or unpredictable, then First Amendment concerns may also be implicated.<sup>17</sup>

The remainder of this Article is structured as follows. Part I introduces the implications of federal registration of trademarks, the administrative process associated with trademark registration, and the harms associated with inconsistent Trademark Office outcomes. Part II describes our data set and methodology utilized. Part III presents the results of our empirical analysis. Finally, Part IV begins to explore the implications of our results.

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13. See 15 U.S.C. § 1115(b)(5)–(6) (2018).

14. As discussed in Part II, the exclusive rights associated with a mark that otherwise qualifies for protection originate from the use of the mark in commerce, not its federal registration. Thus, Sweet Earth Foods should not be able to prevent Herbivorous Butcher from continuing to use the mark in Minneapolis but Nestlé could, for example, hamper Herbivorous Butcher’s ability to use the mark if Herbivorous Butcher expanded into other geographical markets.

15. JERRY L. MASHAW, BUREAUCRATIC JUSTICE: MANAGING SOCIAL SECURITY DISABILITY CLAIMS 25–26 (1983); Robert A. Kagan, *Inside Administrative Law*, 84 COLUM. L. REV. 816, 820 (1984) (reviewing JERRY L. MASHAW, BUREAUCRATIC JUSTICE: MANAGING SOCIAL SECURITY DISABILITY CLAIMS (1983)).

16. Castrodale, *supra* note 7.

17. See Barton Beebe & Jeanne C. Fromer, *Immoral or Scandalous Marks: An Empirical Analysis*, 8 N.Y.U. J. INTEL. PROP. & ENT. L. 169, 197–203 (2019).

## I. BACKGROUND

This Part begins by outlining the goals of trademark law and the rights that flow from federal registration of a trademark. It then provides an overview of the federal registration process and describes the harms associated with inconsistent Trademark Office outcomes.

### A. *The Goals of Trademark Law and the Significance of Trademark Registration*

A trademark is a word, phrase, symbol, design, or combination thereof that identifies and distinguishes goods and services of one party from those of another.<sup>18</sup> For instance, trademark protection enables consumers who are shopping for sparkling water to rely on the presence of the TOPO CHICO mark as an indicator of the sparkling water's quality to which that mark is affixed. Consumers who previously had a good experience with TOPO CHICO sparkling water can simply look for the TOPO CHICO mark the next time they go shopping for sparkling water or order a sparkling water in a restaurant. First-time customers can rely on the TOPO CHICO mark as shorthand for information they have learned from advertising or by word of mouth.

Marks serve this search-cost reduction function only to the extent the trademark owner can stop others from using the same mark on confusingly similar products. For example, if another company could label its sparkling water TOPO CHICO, consumers would no longer be able to rely on the TOPO CHICO mark to indicate a quality signal. As a result, consumers would have to rely upon alternative, presumably more costly, mechanisms to verify the attributes of the product. Moreover, because trademark law “helps assure a producer that it—and not an imitating competitor—will reap the financial, reputation-related rewards associated with a desirable product,”<sup>19</sup> the producer of TOPO CHICO sparkling water has an incentive to produce goods of a consistent quality.<sup>20</sup>

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18. See 15 U.S.C. § 1127. Technically, a trademark is a word, phrase, symbol, and/or design that identifies and distinguishes the source of the good of one party from those of others. A service mark is a word, phrase, symbol, and/or design that identifies and distinguishes the source of a service rather than goods. We utilize the term trademark in this Article to refer to both trademarks and service marks.

19. *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 164 (1994).

20. See Robert G. Bone, *Enforcement Costs and Trademark Puzzles*, 90 VA. L. REV. 2099, 2108 (2004) (“[I]f consumers lacked the ability to distinguish one brand from another, firms would have no reason to create brands with more costly but higher quality characteristics.”).

This example helps illustrate the standard justifications of trademark law: to reduce the costs to a consumer of searching for goods that satisfy her preferences without overly restricting marketplace competition, and to create incentives to preserve and improve product quality by enhancing the communication of quality-related information to consumers.<sup>21</sup> These justifications for trademark law have been endorsed by the Supreme Court<sup>22</sup> and have had an enormous influence in the shaping of trademark scholarship.<sup>23</sup>

The U.S. trademark system is often referred to as a “use-based” rather than a “registration-based” system.<sup>24</sup> In other words, the

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21. The vast majority of scholars use the rhetoric of search costs to describe the normative goals of trademark law. *See, e.g.*, WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 167 & n.2 (2003) (summarizing consumer-search-costs literature); Stacey L. Dogan & Mark A. Lemley, *A Search-Costs Theory of Limiting Doctrines in Trademark Law*, 97 *TRADEMARK REP.* 1223, 1223 (2007) (noting that “the search costs theory of trademark law has attracted a substantial following among both commentators and courts”); Mark P. McKenna, *A Consumer Decision-Making Theory of Trademark Law*, 98 *V.A. L. REV.* 67, 75 (2012) (stating that an “overwhelming majority of scholars use search costs language to describe trademark law’s purposes”). Furthermore, the Supreme Court jurisprudence recognized that trademark law’s core theoretical justification is to reduce consumer search costs:

[T]rademark law, by preventing others from copying a source-identifying mark, “reduce[s] the customer’s costs of shopping and making purchasing decisions,” for it quickly and easily assures a potential customer that *this* item—the item with this mark—is made by the same producer as other similarly marked items that he or she liked (or disliked) in the past.

*Qualitex Co.*, 514 U.S. at 163–64 (citation omitted) (quoting 1 J. THOMAS MCCARTHY, *MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION* § 2.01[2], at 2–3 (3d ed. 1994)).

Although the dominant theoretical account of trademark law is rooted in economics, scholars have posited other justifications for trademark protection. For instance, Barton Beebe has argued a “semiotic” account of trademark law that considers consumers’ demand for “signs, distinctions, [and] differences.” Barton Beebe, *The Semiotic Analysis of Trademark Law*, 51 *UCLA L. REV.* 621, 704 (2004). Robert Bone has argued that moral arguments such as intentional deception should be treated differently than economic concerns. Robert G. Bone, *Taking the Confusion out of “Likelihood of Confusion”: Toward a More Sensible Approach to Trademark Infringement*, 106 *NW. U. L. REV.* 1307, 1350–53 (2012). Others have argued that additional values, such as the First Amendment, should play a larger role in the development of trademark jurisprudence. *See* Lisa P. Ramsey, *Increasing First Amendment Scrutiny of Trademark Law*, 61 *SMU L. REV.* 381, 447–57 (2008) (arguing that trademark law should be subject to more First Amendment scrutiny); Rebecca Tushnet, *Trademark Law as Commercial Speech Regulation*, 58 *S.C. L. REV.* 737, 756 (2007) (noting that while she is “largely in favor of core trademark infringement doctrine as it stands now,” she nevertheless believes that trademark law should be treated more consistently with other commercial speech for First Amendment purposes).

22. *See, e.g., Qualitex Co.*, 514 U.S. at 163–64.

23. *See supra* note 21.

24. Registration-based trademark systems are more common than use-based systems. *See, e.g.*, Graeme B. Dinwoodie, *(National) Trademark Laws and the (Non-National) Domain Name System*, 21 *U. PA. J. INT’L ECON. L.* 495, 496 (2000) (“[F]or over a century the United States has steadfastly resisted adoption of a registration-based system of trademark priority and has adhered



exclusive rights associated with a mark that otherwise qualifies for protection originate from the use of the mark in commerce, not its federal registration.<sup>25</sup> Federal registration of a mark with the Trademark Office is not required for a trademark to become protected. Moreover, the Lanham Act, the source of federal trademark law, fails to protect a trademark registrant's exclusive rights in its mark once the mark is no longer being used in commerce and there is no intent to resume such use.<sup>26</sup>

Nevertheless, even in the American use-based system, federal registration of a mark confers a number of important legal rights and benefits on the registering party that substantially enhances the rights of trademark owners established by mere common law use.<sup>27</sup> For one, registration provides the trademark registrant with a "right of priority, nationwide in effect," against anyone else in the nation who uses the registered mark after the date of application.<sup>28</sup> This right of priority extends nationally even if the registrant has not itself used the mark throughout the nation. In contrast, exclusive rights in an unregistered

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instead to a use-based philosophy."). Although trademarks are governed by both state and federal law, the Lanham Act, the source of federal trademark law, dominates. *See, e.g., The United States Trademark Association Trademark Review Commission Report and Recommendations to USTA President and Board of Directors*, 77 TRADEMARK REP. 375, 377 (1987) ("Federal trademark registration, Section 43(a), and the engulfing sweep of interstate commerce have given the law and policy of trademarks a strongly federal cast. The federal courts now decide, under federal law, all but a few trademark disputes. State trademark law and state courts are less influential than ever."); Lee Ann W. Lockridge, *Abolishing State Trademark Registrations*, 29 CARDOZO ARTS & ENT. L.J. 597, 604–05 (2011) (summarizing the dominance of federal law in the shaping of trademark rights). For a persuasive argument that state law has played less of a role in the development of trademark law than generally believed, see generally Mark P. McKenna, *Trademark Law's Faux Federalism*, in INTELLECTUAL PROPERTY AND THE COMMON LAW 288, 288 (Shyamkrishna Balganeshe ed., 2015).

25. Trade-Mark Cases, 100 U.S. 82, 94 (1879) ("At common law the exclusive right to [a trademark] grows out of its *use*, and not its mere adoption."); *Sengoku Works Ltd. v. RMC Int'l, Ltd.*, 96 F.3d 1217, 1219 (9th Cir. 1996) ("To acquire ownership of a trademark it is not enough to have invented the mark first or even to have registered it first; the party claiming ownership must have been the first to actually use the mark in the sale of goods or services.").

26. 15 U.S.C. § 1051(d) (2018) (requiring an applicant to submit a statement that the mark is being used in commerce); *id.* § 1127 ("A mark shall be deemed to be 'abandoned' if . . . its use has been discontinued with intent not to resume such use.").

27. *B & B Hardware, Inc. v. Hargis Indus.*, 575 U.S. 138, 142 (2015) ("The Lanham Act confers 'important legal rights and benefits' on trademark owners who register their marks." (quoting 3 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 19:3, at 19–21 (4th ed. 2014))); see Alexandra J. Roberts, *Trademark Failure to Function*, 104 IOWA L. REV. 1977, 1985 (2019) [hereinafter Roberts, *Trademark Failure to Function*] ("And despite the dearth of discussion about it, registration matters.").

28. 15 U.S.C. § 1057(c).

mark extend only to the geographic regions in which the mark is being used.<sup>29</sup>

Additionally, once a mark has been registered for five years, it can become “incontestable,” which limits the grounds upon which the mark’s validity may be challenged.<sup>30</sup> This advantage is especially significant for “descriptive” marks, or marks that “immediately convey[] information concerning a quality or characteristic of the product or service.”<sup>31</sup> Marks that are descriptive must show “secondary meaning” as a designation of source for that product; that is, they must demonstrate that consumers do not think of the mark as merely describing the product but instead identify the mark with the product to receive trademark protection in the United States.<sup>32</sup> Incontestability prevents courts from revisiting whether a mark is descriptive, even when the evidence suggests the mark never developed a secondary meaning.<sup>33</sup>

Another substantive advantage that flows from registration is the ability to obtain the assistance of U.S. Customs and Border Protection (“CBP”) in restricting the importation of infringing or counterfeit goods.<sup>34</sup> After a markholder applies to record its registered mark with the CBP, CBP officers access the recording data to prevent the importation of goods bearing the infringing marks.<sup>35</sup> This protection substantially enhances a markholder’s ability to block infringing merchandise from entering the country in the first place.

Registration also furnishes a number of procedural advantages. For instance, registration provides prima facie evidence of the validity of the mark, the registrant’s ownership of the mark, and the registrant’s exclusive right to use the mark in U.S. commerce in connection with

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29. See *Emergency One, Inc. v. Am. Fire Eagle Engine Co.*, 332 F.3d 264, 269 (4th Cir. 2003) (“[T]he owner of common-law trademark rights in an unregistered mark is not entitled to injunctive relief in those localities where it has failed to establish actual use of the mark.”).

30. 15 U.S.C. §§ 1065, 1115(b).

31. *In re MBNA Am. Bank, N.A.*, 340 F.3d 1328, 1332 (Fed. Cir. 2003).

32. See *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 162–63 (1995).

33. See, e.g., *Park ‘N Fly, Inc. v. Dollar Park & Fly, Inc.*, 718 F.2d 327, 331 (9th Cir. 1983) (“We conclude that Park ‘N Fly’s mark used in the context of airport parking is, at best, a merely descriptive mark . . . [It] would not be entitled to continued registration but for its incontestable status . . .”), *rev’d*, 469 U.S. 189 (1985).

34. See 15 U.S.C. § 1124; 19 U.S.C. § 1526 (2018).

35. *Help CBP Protect Intellectual Property Rights*, U.S. CUSTOMS & BORDER PROTECTION (July 19, 2019), <https://www.cbp.gov/trade/priority-issues/ipr/protection> [<https://perma.cc/7MG7-J9C2>].

the goods and services listed in the certificate.<sup>36</sup> Federal registration also enables a markholder to sue in federal court to enforce her trademark.<sup>37</sup> Finally, registration enhances damages, as only registered marks can take advantage of counterfeiting provisions that award automatic treble damages upon a showing of intentional and knowing use of a counterfeit mark.<sup>38</sup> Taken together, these benefits are so significant that it is now commonplace for owners seeking protection of trademark rights to file for federal registration rather than rely solely on the use-based system.<sup>39</sup>

### B. *The Registration Process*

To obtain federal registration of a trademark on the principal register, the mark's owner must file an application with the Trademark Office, which is an agency housed in the Department of Commerce.<sup>40</sup> The application must include, among other things, a depiction of the mark and a list of the goods or services for which protection is sought.<sup>41</sup> The applicant must also specify the statutory "basis" for its application, of which the two most common are current use of the mark in commerce and a bona fide intent to use the mark in commerce.<sup>42</sup>

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36. 15 U.S.C. § 1057(b).

37. *Id.* § 1121.

38. *Id.* § 1117(b). A court can decline to award treble damages when it finds extenuating circumstances. *Id.*

39. Lee Ann W. Lockridge, *Abolishing State Trademark Registrations*, 29 CARDOZO ARTS & ENT. L.J. 597, 605 (2011) ("[F]ederal registration [is] indispensable for any owner making an informed decision about its trademark rights."). In addition, some scholars have argued that registration also can enable owners to assert more tenuous claims—that is, bully—competitors and new entrants who lack the financial resources to litigate. *See, e.g., Roberts, Trademark Failure to Function, supra* note 27, at 1985.

40. The Lanham Act establishes two separate registers, principal and supplemental, for federal trademark registrations. Trademarks and service marks that identify the goods or services of one manufacturer and distinguish them from another—that is, are distinctive—are eligible for registration on the principal register. 15 U.S.C. § 1051; *see also id.* §§ 1051–72. In contrast, designations that do not perform this function but are instead merely descriptive, deceptively misdescriptive, primarily geographically descriptive, or product configurations that lack acquired distinctiveness, among other things, may be registered on the supplemental register. *Id.* § 1091(a). The principal-register registrations enjoy a number of substantive and procedural advantages that do not accrue to the supplemental-register registrations.

41. 37 C.F.R. § 2.21(a) (2019) (listing the basic requirements of an application to obtain a filing date as (a) the legal name of the applicant; (b) a name and address for correspondence; (c) a depiction of the mark; (d) a list of the goods and services for which protection is sought; and (e) the filing fee for at least one class of goods and services).

42. Although the intent-to-use applications are relatively new, originating in 1989, they comprise, on average, the majority of new filings at the Trademark Office each year. Graham et al., *supra* note 10, at 15–16.

Upon receipt of the application, the Trademark Office randomly assigns the application to a trademark-examining attorney.<sup>43</sup> The attorney then conducts an *ex parte* examination to determine whether the mark meets the federal registration requirements. These requirements incorporate the basic doctrinal principles that govern the validity of a trademark, including conditions that the mark must possess either inherent or acquired distinctiveness of source, not be confusingly similar to some previously used or registered mark, and not be deceptive without secondary meaning.<sup>44</sup> If the trademark-examining attorney finds grounds for refusing registration, she will issue an “office action” informing the applicant of the reasons why the registration is denied.<sup>45</sup> The applicant can then argue the examiner is incorrect or amend the application to attempt to moot the grounds for refusal.<sup>46</sup> This process may occur several times until the examiner either approves the application for publication in the Trademark Office’s Official Gazette or finally refuses to register the mark. An aggrieved applicant can appeal the denial of registration to the Trademark Trial and Appeal Board (“TTAB”), an administrative tribunal within the Trademark Office composed primarily of administrative trademark judges.<sup>47</sup>

If the trademark-examining attorney determines that the mark appears registrable, the Trademark Office will publish the application in the Trademark Office’s Official Gazette for opposition. The thirty-day opposition period is the first opportunity for a third party to challenge the validity of the registration by initiating an administrative “opposition” proceeding before the TTAB.<sup>48</sup> The opposition

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43. *Id.* at 18. Prior to November 3, 2002, applications were assigned to one of seventeen law offices in the Trademark Office based on the goods and services claimed in the application. The applications, however, were still randomly assigned to a trademark-examining attorney within the law office of interest. *Id.*

44. 15 U.S.C. § 1052 (a)–(f).

45. 37 C.F.R. § 2.21(5)(b).

46. *Id.* § 2.63(a).

47. 15 U.S.C. § 1070. Technically, the TTAB is composed of at least three of the Director, Deputy Director of the United States Patent and Trademark Office, the Commissioner for Patents, the Commissioner for Trademarks, and administrative trademark judges who are appointed by the Secretary of Commerce in consultation with the Director. *Id.* § 1067(b). The process by which the Board reviews trademark denials is more formal than the process by which the Trademark Office makes the initial registration decisions. However, the process by which the Board reviews trademark denials does not rise to the level of APA required formal adjudication. See Wasserman, *supra* note 12, at 1524.

48. 15 U.S.C. § 1063(a). Oppositions must be filed within thirty days of the publication of the trademark. *Id.*

proceedings before the TTAB are more formal than both the initial registration decision by the trademark-examining attorney and trademark-denial proceedings in that the opposition proceedings are designed to roughly approximate civil actions in federal court.<sup>49</sup> If no oppositions are filed or the applicant successfully overcomes an opposition, the use-based applications proceed directly to registration. With respect to intent-to-use applications, the Trademark Office will issue a notice of allowance, which states that the applicant must file a satisfactory statement of use of the mark before the Trademark Office will register the mark.<sup>50</sup>

Finally, after the opposition period has expired and the Agency has issued the registration, a third party may still attack the trademark grant by initiating an administrative proceeding before the TTAB to cancel the registration.<sup>51</sup> For five years after the initial grant of registration, the grounds for canceling a mark are the same as opposing a mark. A third party may oppose the registration of a mark for any substantive ground a trademark-examining attorney must consider when making the initial registration decision, plus two additional substantive grounds: dilution by tarnishment and dilution by blurring.<sup>52</sup> After this five-year period, the substantive grounds upon which a third party can cancel a registration narrow considerably, rendering the mark “incontestable.”<sup>53</sup>

Aggrieved parties can appeal adjudications of trademark-registration grants or denials by the TTAB to the Federal Circuit on the record generated in Trademark Office proceedings or challenge the TTAB’s decision in a civil action in federal district court, where additional discovery may be taken and new evidence submitted.<sup>54</sup> Once

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49. *B & B Hardware, Inc. v. Hargis Indus.*, 575 U.S. 138, 143 (2015) (describing “[o]pposition proceedings before the TTAB” as “similar to a civil action in a federal district court” (quoting PATENT & TRADEMARK OFFICE, U.S. DEP’T OF COMMERCE, TRADEMARK TRIAL AND APPEAL BOARD MANUAL OF PROCEDURE § 102.03 (2014))). *See* Wasserman, *supra* note 12, at 1525 (discussing the formality associated with TTAB opposition proceedings).

50. 37 C.F.R. § 2.81(b). The applicant has six months from the date of notice of allowance to file a statement of use, although this period can be extended to up to thirty months for good cause. 15 U.S.C. § 1051(d).

51. 15 U.S.C. § 1064.

52. *See id.* §§ 1064(1)–(3), 1065, 1067–68.

53. *Id.* § 1065. For more background on incontestability in trademark law, see generally Rebecca Tushnet, *Fixing Incontestability: The Next Frontier?*, 23 B.U. J. SCI. & TECH. L. 434 (2017).

54. 15 U.S.C. § 1071. The appeal to the Federal Circuit is limited to the issues raised and the record established before the Board. *Id.* § 1071(a)(4). The appeal to the district court is by way of civil action and is a de novo proceeding. *Id.* § 1071(b)(1).

a party appeals a TTAB decision to a federal district court, the Federal Circuit's jurisdiction is divested.<sup>55</sup> Subsequent appeals of district court decisions are to be taken to the regional circuits.<sup>56</sup>

### C. Concerns with Heterogeneity in Decision-Making

The Trademark Office employs approximately seven hundred trademark-examining attorneys who make over half a million trademark-registration determinations each year.<sup>57</sup> However, several of the requirements for federal registration, which parallel the validity doctrines of trademarks,<sup>58</sup> contain broad or vague standards. Like many agencies, the Trademark Office seeks to cabin the discretion of trademark-examining attorneys by promulgating manuals that provide detailed rules on how trademark examination should proceed.<sup>59</sup> But these guidelines are a constant struggle between generality and precision, granting trademark-examining attorneys ample latitude to determine whether a trademark meets the federal registration requirements.

For example, trademark-examining attorneys reject trademark registrations most frequently when there is a likelihood that the mark is confusingly similar to another mark.<sup>60</sup> This doctrine involves a

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55. See, e.g., Theodore H. Davis, Jr., *Deference to United States Patent and Trademark Office Determinations by Federal District Courts and the Regional Circuit Courts of Appeals*, 87 TRADEMARK REP. 1 (1997); Hope Hamilton, Note, *Parsing the Standard of Review Puzzle: How Much Deference Should Federal District Courts Afford Trademark Trial and Appeal Board Decisions?*, 12 FED. CIR. B.J. 489 (2003).

56. 15 U.S.C. § 1121; see also *Williams v. Dep't of the Army*, 715 F.2d 1485, 1490 n.5 (Fed. Cir. 1983). Despite having two different routes to appeal TTAB decisions, aggrieved parties historically have overwhelmingly favored appeal to the Federal Circuit over pursuing civil action. See Wasserman, *supra* note 12, at 1526.

57. 2019 PERFORMANCE AND ACCOUNTABILITY REPORT, *supra* note 5, at 12 & tbl.15 (noting that in the fiscal year of 2019 the Trademark Office employed 701 trademark-examining attorneys and processed more than 670,000 trademark applications).

58. Wasserman, *supra* note 12, at 1520 (“The Trademark Office may reject a registration on any number of procedural and substantive grounds, the latter of which incorporate the basic doctrinal principles that govern the validity of a trademark.”).

59. See U.S. PATENT & TRADEMARK OFFICE, TRADEMARK MANUAL OF EXAMINING PROCEDURE (2018), <https://tmep.uspto.gov/RDMS/TMEP/current> [<https://perma.cc/YNL3-LRZE>].

60. Graham et al., *supra* note 10, at 18 (“The most common ground for refusing registration is the existence of a ‘likelihood of confusion’ between the applicant’s mark and the mark in an existing registration.”). The Trademark Act states that a mark cannot be registered if it “so resembles [an existing] mark . . . as to be likely . . . to cause confusion . . .” 15 U.S.C. § 1052(d).

thirteen-factor test<sup>61</sup> that has been described by Professor Bob Bone as “deeply flawed . . . open-ended and relatively subjective.”<sup>62</sup> Although Trademark Office guidance dictates that two of the thirteen factors carry the most weight, the Trademark Office also states “there is no mechanical test for determining likelihood of confusion and ‘each case must be decided on its own facts.’”<sup>63</sup> Given this broad, case-by-case decision-making process, it seems highly probable that there is significant heterogeneity in trademark examiners’ determinations.

To our knowledge, the only study to date that empirically examines the heterogeneity of trademark-examining attorneys’ determinations is the work of Professors Robert Barton Beebe and Jeanne C. Fromer.<sup>64</sup> Their important study examined 1,901 marks that the Agency had refused to register on the basis of the prohibition on scandalous or immoral marks.<sup>65</sup> They found that in 114 cases the Agency “stated that the mark was immoral or scandalous and thus

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61. *In re E.I. DuPont DeNemours & Co.*, 476 F.2d 1357 (C.C.P.A. 1973), established a thirteen-factor test for determining the likelihood of confusion:

- (1) The similarity or dissimilarity of the marks in their entireties as to appearance, sound, connotation and commercial impression.
- (2) The similarity or dissimilarity and nature of the goods or services as described in an application or registration or in connection with which a prior mark is in use.
- (3) The similarity or dissimilarity of established, likely-to-continue trade channels.
- (4) The conditions under which and buyers to whom sales are made, i.e. ‘impulse’ vs. careful, sophisticated purchasing.
- (5) The fame of the prior mark (sales, advertising, length of use).
- (6) The number and nature of similar marks in use on similar goods.
- (7) The nature and extent of any actual confusion.
- (8) The length of time during and conditions under which there has been concurrent use without evidence of actual confusion.
- (9) The variety of goods on which a mark is or is not used (house mark, ‘family’ mark, product mark).
- (10) The market interface between applicant and the owner of a prior mark. . . .
- (11) The extent to which applicant has a right to exclude others from use of its mark on its goods.
- (12) The extent of potential confusion, i.e., whether *de minimis* or substantial.
- (13) Any other established fact probative of the effect of use.

*Id.* at 1361.

62. Robert G. Bone, *Taking the Confusion Out of “Likelihood of Confusion”*: Toward a More Sensible Approach to Trademark Infringement, 106 NW. U. L. REV. 1307, 1308 (2012).

63. U.S. PATENT & TRADEMARK OFFICE, TRADEMARK MANUAL OF EXAMINING PROCEDURE § 1207.01 LIKELIHOOD OF CONFUSION (2018), <https://tmap.uspto.gov/RDMS/TMEP/current> [<https://perma.cc/P6QK-S7ZT>] (quoting *In re E.I. DuPont DeNemours & Co.*, 476 F.2d at 1361).

64. See generally Beebe & Fromer, *supra* note 17 (discussing the ways the U.S. Patent and Trademark Office has applied the immoral or scandalous prohibition).

65. *Id.* at 171–72.

could not be registered—and that the [Agency] had already registered a highly similar mark on highly similar goods or services.”<sup>66</sup> One of these cases included the Trademark Office’s refusal to register the mark FUK!T in connection with apparel on the basis that the applied-for mark was immoral or scandalous and confusingly similar to the recently registered—and seemingly equally scandalous—apparel mark PHUKIT.<sup>67</sup> This led Professors Beebe and Fromer to conclude that Trademark Office is, by its own admission, “making a large number of inconsistent applications of the § 2(a) prohibition on the registration of immoral-or-scandalous marks—and often just a short time apart.”<sup>68</sup>

A Trademark Office that treats similar applications in dissimilar ways is problematic for several reasons. To begin, the existence of interexaminer disparity itself demonstrates how much discretionary authority trademark-examining attorneys wield and instills little confidence that they are exercising this discretion to apply trademark-registration standards in a guided and regimented manner. In other words, inconsistent behavior across examiners leaves observers wondering whether examiners are systematically “missing the mark” in making registration determinations.

The trademark-registration standards are set to generally parallel the economic justifications for trademarks—that is, enabling the public to easily identify a particular product from a specific source without unduly restricting orderly competition.<sup>69</sup> As a result, if trademark-examining attorneys are routinely denying registrations on valid trademarks, then the Trademark Office would be depriving those applications that may be the most worthy of the substantial rights associated with federal registration. If firms are allowed to free ride off the goodwill of other firms, then trademark owners’ incentives to preserve and improve product quality may be diminished.

Alternatively, if trademark-examining attorneys are allowing invalid trademarks to be registered, these trademarks may impose the costs of additional federal registration rights on society without producing any of the associated benefits. Moreover, once a mark has been registered for five years it can become incontestable, limiting the grounds on which a court can invalidate the mark during infringement

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66. *Id.* at 183, 188.

67. *Id.* at 183.

68. *Id.*

69. *See* Wasserman, *supra* note 12, at 1520–23.



litigation.<sup>70</sup> Thus, the Trademark Office registration decisions not only impact whether federal rights can be obtained but also can affect whether a mark is held valid in a trademark-infringement lawsuit.<sup>71</sup>

Beyond concerns regarding the quality of examination, interexaminer disparity may erode confidence in the Trademark Office by creating the appearance of unfairness and arbitrariness.<sup>72</sup> Inconsistent trademark-registration decisions also offend theories of administrative justice while raising questions of equity.<sup>73</sup> Simply put, the likelihood that a mark is granted federal registration should not be a function of which trademark-examining attorney the application is randomly assigned to; instead registration should hinge on the merits of the application.

Despite the concerns with interexaminer disparity, empirical examination of the trademark system—especially the administrative process by which federal trademark registrations are obtained—is exceedingly rare.<sup>74</sup> As noted above, the work of Professors Beebe and Fromer is one of the few, if only, studies that has examined heterogeneity in trademark-examining-attorney decision-making. Although their work is an important contribution to the literature, they focused on only one basis of refusal—scandalous or immoral prohibition—and as a result examined less than 1 percent of trademark-registration determinations.<sup>75</sup> Moreover, by focusing on refusals, their analysis only concentrated on inconsistency in one particular category of Trademark Office outcomes and decisions. This Article begins to fill this gap in the literature and provides a more complete sense of the degree of inconsistency in decision-making at the Trademark Office by using data from over 7.8 million trademark applications and conducting the first large-scale, systematic investigation of a range of decisions made by—and outcomes reached by—trademark-examining attorneys.

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70. See *supra* notes 30–33 and accompanying text.

71. See Roberts, *Trademark Failure to Function*, *supra* note 27, at 1985.

72. See MASHAW, *supra* note 15, at 73.

73. *Id.* at 25–26; see also Kagan, *supra* note 15, at 820 (reviewing JERRY L. MASHAW, BUREAUCRATIC JUSTICE: MANAGING SOCIAL SECURITY DISABILITY CLAIMS (1983) and detailing how his “bureaucratic rationality” is a model of agency adjudication that facilitates “[g]reater control and consistency” by placing “the overriding value” on “accurate, efficient and consistent implementation of centrally-formulated policies”).

74. Graham et al., *supra* note 10, at 3.

75. Professors Beebe and Fromer note that only 1,901 marks out of 3.6 million registrations were refused on the grounds of scandalous or immoral prohibition. Beebe & Fromer, *supra* note 17, at 171–72.

## II. DATA AND METHODOLOGY

A. *Data and Outcomes*

To demonstrate and evaluate the degree of heterogeneity in behavior across trademark-examining attorneys, we collected rich data on individual trademark applications from 1982 to the present from the Trademark Case Files Dataset made available by the Trademark Office's Office of the Chief Economist.<sup>76</sup> These data provide information on (1) the name of the examining attorney randomly assigned to the application; (2) a range of characteristics of these applications—for example, whether the application is an intent-to-use application; whether the application is a trademark, service mark, collective mark, etc.;<sup>77</sup> and (3) various outcomes associated with the application—for example whether the application was published, whether an opposition to the publication was sustained, etc.<sup>78</sup> Over this sample period, these data provide information on the reviews of 1,308 trademark-examining attorneys, who, on average, review over 6,000 applications over their careers. In total, our database comprises over 7.8 million trademark applications.

Using these data, our key empirical exercise is to observe how certain Trademark Office outcomes vary across the different examining attorneys to which the applications are randomly assigned. As such, we have analyzed the reviews completed by the different examiners at the office and documented variation in the following outcomes:

1. The likelihood that the application is published;

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76. A description of this dataset is provided by Stuart Graham, Galen Hancock, Alan Marco, and Amanda Myers. Graham et al., *supra* note 10. Though some data on applications from years prior to 1982 are made available with this dataset, we focus on data in the post-1982 era given the data prior to this period does not contain all abandoned applications. *Id.* at 32.

77. Below, we provide a more complete list of the application characteristics that we utilize in our empirical analysis. A certification mark is “any word, name, symbol, or device, or any combination thereof . . . to certify regional or other origin, material, mode of manufacture, quality, accuracy, or other characteristics of such person’s good or services or that the work or labor on the goods or services was performed by members of a union or other organization.” 15 U.S.C. § 1127 (2018). A service mark is “any word, name, symbol, or device, or any combination thereof . . . to identify and distinguish the services of one person . . . from the services of others and to indicate the source of the services . . .” *Id.*

78. Again, for a more complete listing and discussion of the various application outcomes that we investigate, see *infra* pp. 1824–26.

2. The likelihood that the application is published on the first substantive evaluation—that is, without an office action having set forth an initial basis for denial of the application;
3. The likelihood that an opposition to the application was sustained by the TTAB;
4. The likelihood that the application was ultimately registered; and
5. The duration of the application at the Trademark Office up until the point in time of the publication decision.

*B. Methodology: Summary Statistics on Spread in Outcomes Across Examining Attorneys*

These five measures reflect outcomes of substantial import not just to the applicants but to the members of society whose interests the trademark system seeks to protect. In the case of each of these separate outcomes, we begin this empirical exercise by offering simple summary statistics describing the degree of variation in the relevant outcomes across examining attorneys. As a baseline frame of reference, we illustrate the mean of the relevant outcome across examiners, allowing us to observe a central point around which we evaluate the degree of examining-attorney heterogeneity. We then present the standard deviation of the relevant outcome across the examining attorneys.<sup>79</sup> Though slightly different from the “average absolute deviation” in its precise formulation, the standard deviation tends to demonstrate the degree to which a typical observation of the measure in question deviates from the average value of that measure.<sup>80</sup> Accordingly, if the

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79. Importantly, when constructing these statistics and when graphically presenting the frequency distributions of the relevant outcomes across examining attorneys, *see infra* Parts II.C and II.D, we do not weigh each examiner’s relevant rate by the number of reviews that she has completed over her lifetime. That is, in constructing the mean publication rate across examiners, we are assigning equal weight in creating this mean to examiners who have reviewed 5,000 applications as we are to examiners who have reviewed 7,000 applications. Nonetheless, for every empirical exercise reported in this Article, we have produced a corresponding set of results in which we have weighted all analyses by the examiners’ lifetime review count. The conclusions that we reach from this analysis regarding examining-attorney heterogeneity are not at all sensitive to this weighting choice (the full set of results is available upon demand from the authors).

80. Deviation measures are generally used to provide an average sense of how much observations in a dataset deviate from the mean of the relevant measure within the data. An immediate problem arises when considering that some observations will deviate in a negative sense and some will deviate in a positive sense. Simply averaging over those positive and negative deviations will thus mask true variations around the mean. The “standard deviation” measure

value of the standard deviation is of a magnitude that represents a meaningful distance from the mean, there are likely to be many observations in the dataset that differ from one another to an economically meaningful degree.

It is difficult to compare standard deviations across measures, however. That is, it is arguably inappropriate to compare the standard deviation of one measure (for example, the examining-attorney publication rate) with the standard deviation of another measure (the examining-attorney registration rate) if one's goal is to assess whether the degree of spread in the first measure is greater than or less than the degree of spread in the second measure. For instance, one would think there is much more spread in the data when we see a standard deviation of 1 in a variable that has a mean of 2 than when we see a standard deviation of 1 when looking at a variable with a mean of 100. Accordingly, to derive a generic measure of the spread of a variable, we next present a summary statistic that takes this point into consideration and that scales the standard deviation in question by its associated mean. This statistic goes by the name of the Coefficient of Variation ("COV"). By normalizing the standard deviation in this manner, this statistic offers a way of comparing the degree of spread across outcomes with different means—that is, it will aid us in comparing the magnitude of the spread in publication rates to the magnitude of the spread in registration rates even if the mean registration rate is notably lower than the mean publication rate.

We acknowledge, however, that reporting the COV alone does not necessarily answer the question of whether, in an absolute sense, there is a "large" degree of variation in the relevant measure. That assessment perhaps remains a judgment call for the consumer of this information depending on her priors regarding an acceptable amount of variation. Nonetheless, in the case of the statistics reported below, we argue that it would be reasonable to conclude from this analysis and the degree of variation depicted that substantial administrative justice and social welfare concerns arise in this Trademark Office context.

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attempts to resolve this dilemma by squaring the deviation between each observation's value and the mean value across the sample, and thereafter: (1) taking the average of those squared deviations over all observations and (2) taking the square root of this average-of-squared-deviations value to place the deviation measure back in the same units as the measure of interest. Note that, when dealing with samples, the standard deviation divides by N-1 (instead of N) in calculating the average squared deviation (where N equals the number of observations in the sample). See generally HOWELL JACKSON, LOUIS KAPLOW, STEVEN SHAVELL, W. KIP VISCUSI & DAVID COPE, *ANALYTICAL METHODS FOR LAWYERS* (3d ed. 2017).

*C. Methodology: Graphical Analysis*

Perhaps the best way for us to demonstrate the full degree of variation in these Trademark Office outcomes—and to allow the reader to reach her own conclusions regarding the size of this variation—is to move beyond a presentation of simple numerical summary statistics and to visually depict the full distribution of the relevant outcomes that we observe across the examining attorneys in our dataset. Accordingly, we plot a frequency distribution for each relevant measure. The x-axis of these graphs will reflect the different possible values of the outcome in question—for instance, different rates of trademark-application publication across examining attorneys—and the y-axis reflects the frequency by which we observe the respective measure across examining attorneys at each of the relevant x-axis values. With this visualization, one can readily ascertain the share of observed values of the outcome in question that tend to cluster around its central tendency—such as its mean—along with the share of these observations that extend sufficiently far from this central point. Knowing these shares may provide a trademark applicant with a sense of their likelihood that they may receive an outlying determination by their assigned examiner.

Of course, one may be concerned that some degree of this heterogeneity may not necessarily reflect true differences in how trademark-examining attorneys actually practice but may instead mirror variations in the characteristics of the applications assigned to those examining attorneys. For instance, perhaps some examining attorneys tend to get a higher concentration of intent-to-use applications, which may tend to be published and registered at different rates than use-based applications for reasons unrelated to the underlying tendencies of the examining attorneys. This differential assignment could explain some level of the variation across examining-attorney publication and registration rates. We could raise similar concerns with respect to a range of other application characteristics.

To begin, mediating against the concern that applications of different characteristics may be clustered in the hands of certain examining attorneys is the random assignment of applications to examining attorneys in the first place.

Nonetheless, to further account for any residual concerns that these frequency distributions reflect differences in application characteristics across the applications that examining attorneys review, we also present corresponding frequency-distribution graphs where we

have first adjusted each examining attorney's rate of the respective measure for the full set of application characteristics associated with their reviews. In other words, we attempt to depict heterogeneity in the examining attorney's *inherent* rate of publication, *inherent* rate of registration, etc., where these inherent rates have canceled out the influence of the particular distribution of application characteristics that the examining attorney happened to have confronted. For instance, if an examining attorney, by happenstance, is assigned a higher proportion of applications for trademarks associated with pharmaceuticals and if applications in that industry just happen to be published at higher rates relative to applications in other industries, then our approach appropriately scales down the examining attorney's observed rate of publication. Specifically, to execute this approach, we consider the sample of individual applications and regress the relevant outcome measure—such as the incidence of publication—on the full set of application characteristics that we wish to account for, along with a full set of dichotomous variables representing each individual examining attorney (that is, a full set of examining-attorney “fixed effects”). We then use these estimated examiner fixed effects to characterize the examining attorneys' inherent rates of the respective measure, a rate that partials out the influence of those other characteristics controlled for in this regression.

For the purposes of this latter adjustment exercise, we adjust for the following application characteristics: indicator variables for the various years in which the applications were filed; indicator variables for the type of mark, including trademark, service mark, collective trademark, collective membership mark, or collective service mark; indicator variables for the legal basis of the filing, such as whether it is use-based, intent-to-use, foreign priority/pending, foreign priority/published, or international registration; indicator variables for whether the application is for a standard character mark, a mark with stylized text, a design with or without text, or a mark for which no drawing is possible; and indicator variables for each of the forty-five different industry classifications, such as chemicals, clothing, etc. As we demonstrate below, with the exception of the duration analysis, the spread associated with the depicted frequency distributions does not appear to be affected by this adjustment procedure. Accordingly, it does indeed appear that random assignment of applications to examining attorneys, combined with a large number of career reviews for each examining attorney, goes a long way toward alleviating

concerns over the influence of application characteristics on the heterogeneity of raw rates of the observed measures.

*D. Methodology: Statistical Inference*

On a final methodological point, we acknowledge that one would expect to observe some degree of heterogeneity in observed rates of these various outcomes across trademark-examining attorneys just by chance alone. Essentially, it may be correct, hypothetically, that the true fundamental rate by which all examining attorneys publish applications is 78 percent, in which case if examining attorneys were, hypothetically, to review an infinite number of applications, we would observe an average publication rate of 78 percent for each of them. However, even if this is their fundamental tendency, we may not observe a precise 78 percent rate for each examining attorney if we only observe a finite number of reviews for each examiner. Due to sampling error, we will likely observe some degree of spread in each of the relevant outcomes across examiners. One of our key empirical exercises is thus to test whether the degree of variation that we actually observe is larger than one would expect from chance alone. We approach this exercise in statistical inference from two perspectives.

First, for each of the outcome measures explored, we formally test the null hypothesis that the rate of the relevant outcome is the same across trademark-examining attorneys. For these purposes, we consider the set of trademark applications and regress the relevant outcome variable—for instance, the incidence of the application being published—on a full set of fixed effects for each trademark-examining attorney. We then perform an F-test of the hypothesis that each of the estimated examining-attorney fixed effects are identical to one another. We present the resulting F-statistic along with its corresponding p-value, which indicates the likelihood that one would observe the reported F-statistic if in fact the null hypothesis—that is, equal-examiner effects—were true. If this p-value is less than 0.05, then we can indeed reject this null hypothesis at the conventional level of statistical confidence.

Next, we take a more graphical approach to this inference exercise. To demonstrate this approach, consider our publication-rate analysis and bear in mind that the average publication rate across the sample is 78 percent. For each application, we generate a random variable drawn from a uniform (0, 1) distribution—that is, a random number that falls continuously between 0 and 1. With this random draw, we generate for each application a placebo variable for whether

or not the application was published, where this placebo equals 1—indicating a placebo publication—if the random draw is less than 0.78 and equals 0 if the random draw is greater than 0.78. In this light, the average rate of this placebo-publication indicator over the sample equals the actual publication rate. Whether or not the application is registered as a placebo publication, of course, is randomly determined. In this light, the fundamental likelihood that we will observe a placebo publication does not differ across examining attorneys—reflective of our null hypothesis.

With this placebo assignment, we then calculate the rate of placebo publications for each examining attorney in the sample and thereafter plot a frequency distribution of these placebo-publication rates across examiners. Naturally, we will observe some variation here, but that variation is not a reflection of differences in inherent publication tendencies. Instead, this placebo variation reflects mere chance—or the likelihood that examining attorney X's publication rate falls above or below 78 percent because we have yet to observe enough applications reviewed by examining attorney X to reach a convergence around the true mean of 78 percent. Ultimately, to the extent that the spread depicted in the frequency distribution for actual publication rates exceeds that of the placebo-publication rates, this differential is likely to reflect actual heterogeneity in examining-attorney behavior, especially once adjusting for application characteristics. Although this explanation has focused on publication rates, we perform this placebo analysis for each of the investigated outcome variables.

Ultimately, with over 7.8 million applications in our sample and with each examining attorney reviewing over 6,000 applications over their careers in our sample, there is very little room in the first place for chance alone to explain the degree of variations in outcomes across examining attorneys that we depict in our figures. As such, we note that there is arguably little controversy in this Article's refutation of the baseline null hypothesis that examining attorneys all make decisions in the same manner. The bigger challenge for this Article is one that we already raised above and with respect to which formal statistical tests are arguably unavailable—namely, whether the magnitude of the variation that we *do* depict is large enough to truly invoke policy concerns. Lacking a methodological basis of assessing this arguably subjective question, our primary methodological approach here is to be as transparent as possible in depicting the degree of variation across examining attorneys, allowing the readers to reach their own assessments of whether this heterogeneity poses concerns over



inefficiencies and inequities at the Trademark Office. Nonetheless, we do offer for the reader our own assessments regarding the breadth of variation observed and argue that it does implicate concerns of this nature that merit further attention by the academy and by policymakers.

### III. RESULTS

This Part presents the results from our empirical analysis, implementing the approaches just laid out in Part II. More specifically, this Part provides evidence that trademark-examining attorneys have substantially divergent overall publication rates, publication rates on the first substantive Trademark Office action—which we use to proxy the scope of protection allowed—and registration rates. We also find evidence that whether a filed opposition is sustained varies considerably among trademark-examining attorneys as does the duration of time an application is before the Trademark Office.

#### *A. Publication-Rate Analysis*

We begin our empirical analysis by presenting evidence bearing on heterogeneity across trademark-examining attorneys in the rates by which they decide to publish the applications that they are reviewing. To be clear, by rates, we are referring to the percentage of applications reviewed by trademark-examining attorneys that they decide to publish. As reported in Table 1, the mean publication rate across all examining trademark attorneys, practicing since 1982, is 78 percent. The standard deviation around this mean is 11.5 percent. This alone suggests a meaningful degree of variation in publication decisions across examiners, with a typical examiner's publication rate tending to swing from roughly 67 to 89 percent—that is, 1 standard deviation above and below the mean. Considering that an applicant is randomly assigned to an examiner, this “standard” spread suggests an arguably meaningful degree of inequity in this important Trademark Office outcome, while likewise suggesting some meaningful degree of inefficiency in the evaluation process. As discussed below when presenting the full distribution, the spread between the highest-rate and lowest-rate examining attorneys is even greater.

In Table 2, we show the resulting mean and standard deviation of the estimated examining-attorney fixed effects, which provide us with a sense of how examining attorneys' inherent publication rates differ from one another while accounting for differences across examining

attorneys in the composition of the applications that they review—for example, accounting for differences in the mix of industries that their reviews cover. With this adjustment process, the mean of this estimated fixed-effect variable does not correspond with the mean overall publication rate; rather, the mean fixed effects are centered roughly around 0, with a positive fixed-effect value indicating that the relevant examiner has above-average publication tendencies and a negative value indicating below-average tendencies. Nonetheless, the standard deviation of these estimated fixed effects continues to provide us with a sense of the standard swing in publication rates across examining attorneys. We find a standard deviation in estimated examining-attorney fixed effects of 11.2 percent. As demonstrated, this degree of swing is roughly the same as we find when looking at the standard deviation of unadjusted examining-attorney publication rates. In other words, the degree of variation in publication rates across examining attorneys described above cannot be explained by differences in the types of applications reviewed by those examining attorneys. This is perhaps not surprising given the large number of applications that they review and given that applications are randomly assigned—that is, not assigned to examining attorneys based on application characteristics.<sup>81</sup>

In the final row of Table 1, we formally test the null hypothesis that the publication rate across examiners is in fact the same and that these observed swings are merely due to sampling error. As the reported F-statistic and associated p-value demonstrate, we can reject this null hypothesis at a very high degree of confidence, meaning greater than 99 percent. As such, we can infer that there are true variations in publication rates across examining attorneys.

In Figure 1, we present a frequency distribution of the observed publication rates across all trademark-examining attorneys from 1982

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81. Note that we are comparing the degree of spread in the raw publication rates with the degree of spread in the application-characteristic-adjusted publication rates by comparing the standard deviations of these two measures, as distinct from comparing their COV. While comparing spreads by comparing standard deviations is arguably inappropriate when comparing the spreads of two separate variables, *see supra* Part II.B, comparing the standard deviations is arguably appropriate here as we are comparing the degree of spread in the same inherent variable (with the same units of measurement, etc.). The risk-adjustment approach is designed such that the mean of the raw publication rate is the same as the mean of the predicted risk-adjusted publication rate. When graphically depicting how this risk-adjusted publication rate varies across examiners, we have simply recentered the mean of this distribution around 0 (since this is what is produced through the regression-based process for risk adjustment discussed above), but this mean recentering does not change the interpretation of the degree of spread around this mean. In other words, shifting a distribution from side to side does not alter one's assessment of the degree of breadth of that distribution.

to the present.<sup>82</sup> This figure allows us to visualize the degree of spread suggested by the above summary statistics while also allowing us to observe the more extreme degree of this spread—that is, to observe the publication rates of examining attorneys whose rates exceed 1 standard deviation away from the mean. As is evident from the figure, a small but meaningful number of examining attorneys have publication rates at roughly 60 percent and below and a small but meaningful number of examining attorneys publish applications nearly 100 percent of the time. To provide more specifics on this observation about the tails of the distribution of publication rates across examining attorneys, the publication rate at the 2nd percentile is roughly 56 percent, whereas the publication rate at the 98th percentile is 100 percent. This suggests that at least 2 percent of trademark-examining attorneys publish less than 56 percent of the applications that they review, while at least 2 percent of trademark-examining attorneys publish all of the applications that they review. In other words, if we took fifty applicants at random, one of those applicants would draw an examining attorney that would give them a less than 56 percent chance of success, whereas another one of those applicants would draw an examining attorney that would almost guarantee them success with the publication stage of the process.

In Figure 2, we present the corresponding distribution of placebo-publication rates, where we randomly assign placebo-publication outcomes to each application such that we hit the same mean publication rate overall and where variation across examiners can only derive from chance and limited sample sizes. As is clear from a comparison between Figures 1 and 2, the degree of variation in publication rates actually observed is notably greater than what one expects from chance alone.<sup>83</sup>

Finally, in Figure 3, we present the frequency distribution of estimated examining-attorney fixed effects. Though now centered around 0 as a frame of reference—by design—these estimates of

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82. Again, we do not weight each examining attorney's rate by the number of reviews that she completes over her career, though we note that the corresponding weighted distribution looks substantially similar to the unweighted figure, with the exception of dampening the masses at 0 and 1 when weighting these rates by the denominator.

83. As a rationality check on this placebo approach, we conducted an F-test on the null hypothesis that each of the placebo-examining-attorney publication rates were the same. With an F-statistic of 0.999 and a corresponding p-value of 0.500, we could not reject this null hypothesis. Note that Figure 2 likewise does not weight the examiner's placebo rates by the number of reviews that they do.

examining attorneys' inherent publication tendencies demonstrate a degree of spread that corresponds closely with that of the unadjusted rates from Figure 1.

Figures 1 and 3—and the associated statistics—*clearly* reject the notion of a unitary Trademark Office. However, do Figures 1 and 3 indeed imply that—at least in terms of the publication decision—there are as many Trademark Offices as there are trademark-examining attorneys? Not exactly. There is some degree of concentration in behavior around the mean. In particular, there are plenty of examining attorneys that exhibit *similar* behaviors. As such, it is tough to say that each examining attorney is completely independent of one another. However, there indeed appears to be a notable range in an applicant's chances of publication that depends on the random allocation of their application to their assigned examining attorney.

**TABLE 1: SUMMARY STATISTICS FOR VARIOUS OUTCOMES  
ACROSS SAMPLE OF TRADEMARK-EXAMINING ATTORNEYS**

	(1)	(2)	(3)	(4)	(5)	(6)
	PUBLICATION RATE (RAW)	RATE OF PUBLICATION WITHOUT ANY REFUSAL ACTION (RAW)	REGISTRATION RATE (RAW)	SUSTAINED- OPPOSITION RATE (RAW)	DURATION (DAYS UNTIL PUBLICATION DECISION, RAW)	FRAME OF REFERENCE: PATENT APPLICATION GRANT RATE (RAW)
Mean (of Distribution of Relevant Examiner Rate)	0.783	0.405	0.579	0.007	314.761	0.682
Standard Deviation (of Distribution of Relevant Examiner Rate)	0.115	0.161	0.136	0.006	134.863	0.197
Coefficient of Variation (of Distribution of Relevant Examiner Rate)	0.15	0.40	0.24	0.85	0.43	0.29
F-statistic (Testing for Equivalence of Relevant Rates Across Examiners)	69.115 (p-value: 0.000)	220.656 (p-value: 0.000)	55.405 (p-value: 0.000)	4.363 (p-value: 0.000)	290.067 (p-value: 0.000)	63.19 (p-value: 0.000)

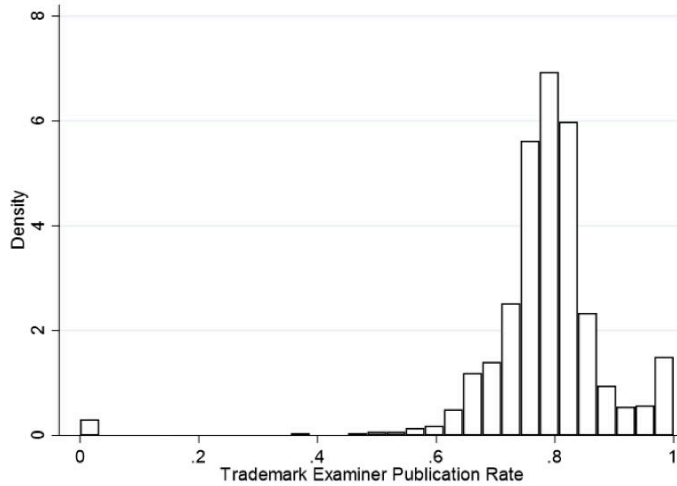
Source: Trademark Case Files Dataset (for trademark measures) and Patent Office PAIR Database (for patent measures). Trademark data statistics are based on a sample of decisions by 1,308 trademark-examining attorneys practicing at the Trademark Office since 1982. The reported statistics are not weighted by the number of lifetime reviews by such examining attorneys. The examiner-level data, in turn, derives from data covering 7.8 million trademark applications since 1982.

**TABLE 2: SUMMARY STATISTICS FOR VARIOUS OUTCOMES  
ACROSS SAMPLE OF TRADEMARK-EXAMINING ATTORNEYS, AFTER  
ADJUSTING RELEVANT EXAMINER MEASURES FOR VARIOUS  
UNDERLYING APPLICATION CHARACTERISTICS**

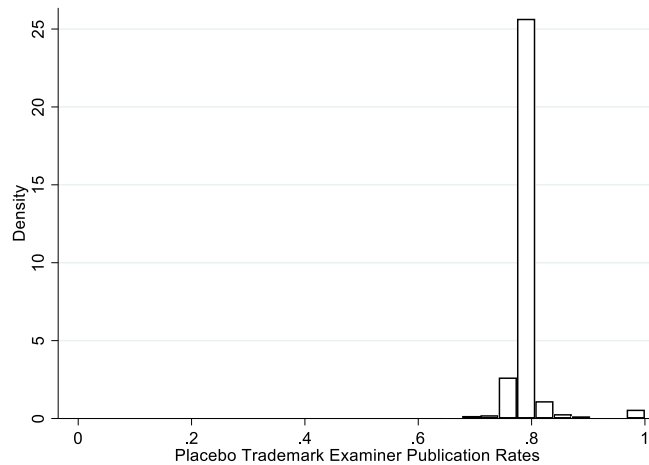
	(1)	(2)	(3)	(4)	(5)
	PUBLICATION RATE (ESTIMATED EXAMINER FIXED EFFECTS)	RATE OF PUBLICATION WITHOUT ANY REFUSAL ACTION (ESTIMATED EXAMINER FIXED EFFECTS)	REGISTRATION RATE (ESTIMATED EXAMINER FIXED EFFECTS)	SUSTAINED- OPPOSITION RATE (ESTIMATED EXAMINER FIXED EFFECTS)	DURATION (DAYS UNTIL PUBLICATION DECISION, ESTIMATED EXAMINER FIXED EFFECTS)
Mean (of Distribution of Relevant Examiner Rate)	-0.003	0.037	-0.029	0.000	-20.352
Standard Deviation (of Distribution of Relevant Examiner Rate)	0.112	0.150	0.123	0.022	67.948

Source: Trademark Case Files Dataset (for trademark measures). To derive the fixed-effects measures reported in Columns 1–5, we take an application-level dataset (covering over 7.8 million applications since 1982) and regress the relevant application-level measure—for example, the incidence of publication in the case of Column 1—on a full set of year-fixed effects (based on the time of filing) and application characteristics, along with a full set of examining-attorney fixed effects. The reported statistics in Table 2 are based on the estimates of the resulting examining-attorney fixed effects across the 1,308 trademark-examining attorneys in the sample. The reported summary statistics (for these estimated fixed effects) are not weighted by the number of lifetime reviews by such examining attorneys.

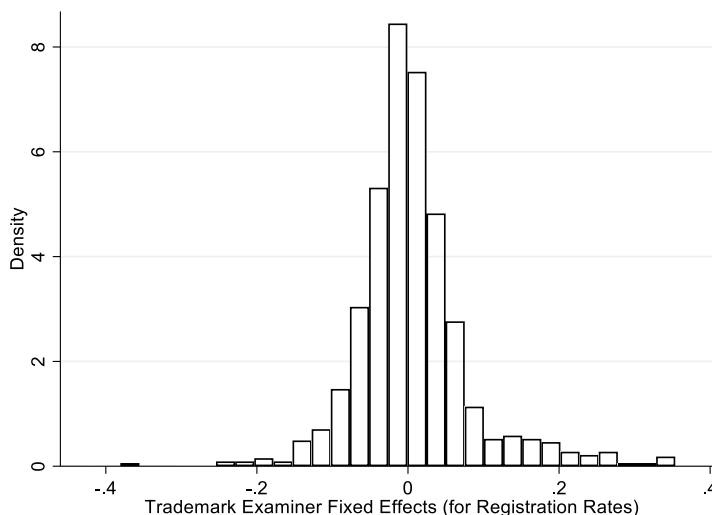
**FIGURE 1: FREQUENCY DISTRIBUTION OF PUBLICATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 2: FREQUENCY DISTRIBUTION OF PLACEBO-PUBLICATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 3: FREQUENCY DISTRIBUTION OF ESTIMATED EXAMINER FIXED EFFECTS FOR PUBLICATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



*B. Analysis of Publication Rates on First Substantive Decisions*

We next explore the degree of variation across trademark-examining attorneys in the rate by which they decide to publish applications on the first substantive decision as opposed to deciding to publish after a previous office action in which they had denied the application for certain stated reasons. Again, to be clear, by this rate, we refer to the percentage of applications reviewed by an examining attorney that they decide to publish on the first substantive decision.

At the outset, it is important to note that this outcome arguably merits separate attention from the above publication-rate analysis. Consider two otherwise identical applications, one of which is published on the first decision with no pushback by the examining attorney and the other of which is only published after the examining attorney issues an office action to reject on certain grounds—for example, that the desired mark is not distinctive enough. The fact that both otherwise identical applications are ultimately published does not mean that both processes bring us to the same point. The scope of



trademark protection received by the applicant whose publication decision was rendered on the first decision is likely to be broader, an outcome that is of relevance both to the consumers whose interests are ultimately at stake and to the applicant's bottom line itself.<sup>84</sup>

As demonstrated by Table 1, this first-decision-publication outcome occurs at a notably lower rate relative to the incidence of any publication outcome at all. Applications are published on the first decision only 40.5 percent of the time. Interestingly, the degree to which examining attorneys vary in this outcome is markedly greater—in both absolute and relative terms—than the degree to which they vary in publishing the application at all. The standard deviation in first-decision-publication rates is 16.1 percent, suggesting that the standard degree of swing in these rates ranges from roughly 24.5 to 56.5 percent. The most straightforward way to compare the degree of variation in the first-decision-publication rate and the overall publication rate is to compare the associated COV, which, as above, normalizes the standard deviations by the respective means to provide a relative sense of the degree of spread involved. The COV with respect to the first-decision outcome is over twice as large as the any-publication outcome (0.40 vs. 0.15).

As with the any-publication outcome, we can likewise easily reject that the observed variation in first-decision-publication rates is due to chance alone, with the p-value of the associated F-test being below 0.0001. Likewise, similar to the any-publication case, we find a nearly identical standard deviation—15 percent—when we adjust each examining attorney's first-decision-publication rate for a range of application characteristics (see Table 2).

In Figures 4–6, we replicate the pattern of frequency distributions depicted in Figures 1–3 but now focus on the first-decision-publication rate. We observe a wide spread in raw first-decision-publication rates (Figure 4) that persists even when we partial out the influence of application characteristics (Figure 6). Moreover, the degree of this spread is strikingly larger relative to that depicted when showing the variation in placebo first-publication decision rates (Figure 5).<sup>85</sup> The extremes of the possible outcomes are particularly striking. Consider the comparison we executed above in the case of the overall

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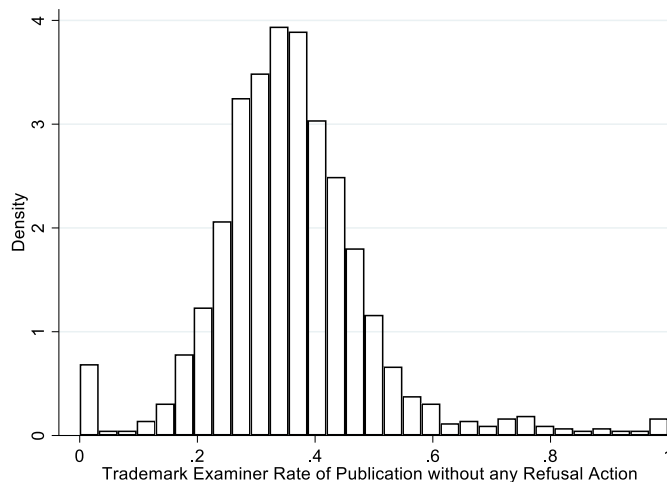
84. See Graham et al., *supra* note 10, at 7–9.

85. As with the any-publication analysis, we also conduct a rationality check on this placebo analysis and test the null hypothesis that examiners' first-decision placebo publication rates are all the same. With a p-value of 0.19 for the associated test, we cannot reject this null hypothesis.

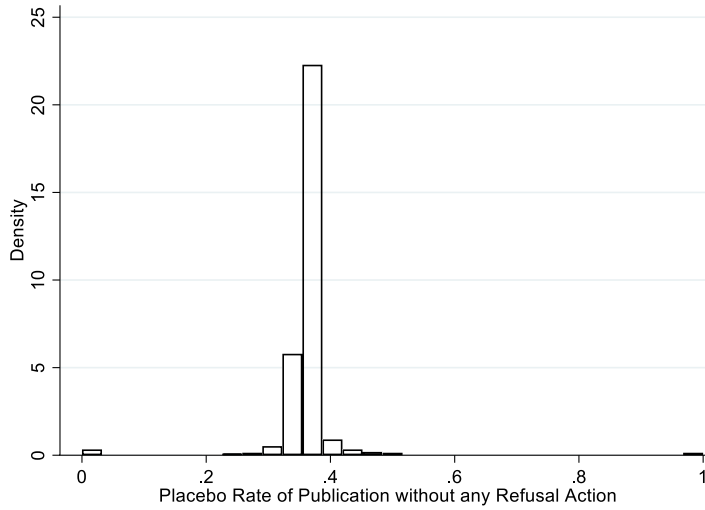
publication-rate decision—that is, let us look at the distribution of publication rates on the first decision across all examining attorneys and compare the relevant rate at the 2nd percentile of this distribution with the rate at the 98th percentile of this distribution. At the 2nd percentile of this across-examining-attorney distribution, the first-publication rate is 11 percent. At the 98th percentile, on the other hand, it is nearly 84 percent. As such, if we took fifty applicants at random again, one of them would be assigned to a reviewing attorney that would provide them with a less than 11 percent chance of succeeding on the first substantive decision, whereas another one of those applicants will be assigned to an examining attorney that would provide them with a greater than 84 percent chance of succeeding on that first decision.

All told, the likelihood that an application receives a positive publication decision on the first substantive review by the trademark-examining attorney depends heavily upon the examining attorney to whom the applicant is randomly assigned.

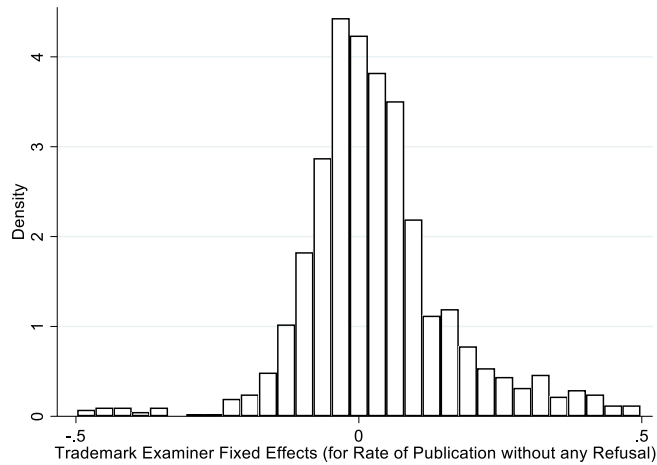
**FIGURE 4: FREQUENCY DISTRIBUTION OF FIRST-DECISION PUBLICATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 5: FREQUENCY DISTRIBUTION OF PLACEBO FIRST-DECISION PUBLICATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 6: FREQUENCY DISTRIBUTION OF ESTIMATED EXAMINER FIXED EFFECTS FOR FIRST-DECISION PUBLICATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



*C. Registration-Rate Analysis*

The rate by which trademark-examining attorneys' underlying applications are ultimately registered—again, as a fraction of applications reviewed—likewise varies notably across examiners. This variation was slightly higher relative to the variation in publication rates, with a COV of 0.24 in registration rates in comparison with the COV of 0.15 in the publication-rate context. But it was less so relative to the variation in first-decision publication decisions, where the COV was 0.40. The average publication rate across our sample of trademark applications is roughly 58 percent, with a standard deviation of 13.6 percent around this mean. Accordingly, the standard degree of publication-rate swing ranges from roughly 46 to 72 percent. As demonstrated by the frequency distribution depicted in Figure 7, the range of publication rates is even larger when considering the outliers on both ends of the distribution. Although the vast bulk of examining attorneys are associated with registration rates spanning from 40 to 80 percent, the distribution does span from a small but meaningful mass at 0 all the way up to 100 percent.

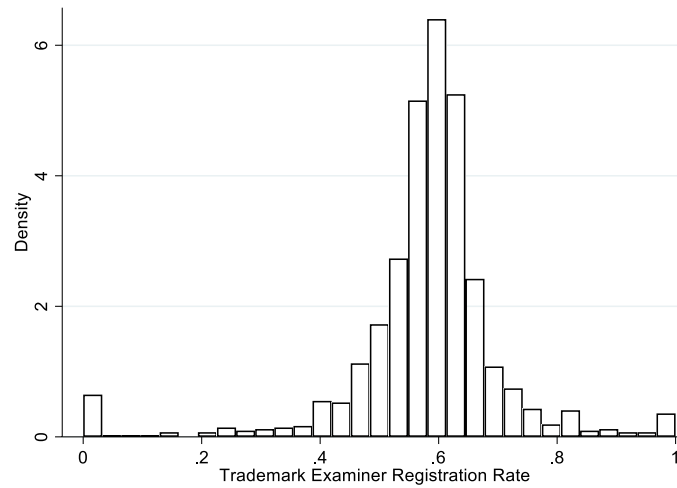
Consistent with the above analyses, this spread also cannot be explained by variations in the composition of applications reviewed across examiners, as demonstrated by the frequency distribution of estimated examining-attorney fixed effects for registration rates depicted in Figure 9, whose standard deviation is slightly smaller but not meaningfully smaller than that of the distribution of raw registration rates.

Further, we confirm that these variations are indeed real and not the product of sampling error, with a p-value of less than 0.000 indicating a high degree of confidence in rejecting the null hypothesis of no variation in registration rates across examining attorneys. Graphically reinforcing this inference, we also find that the actual degree of spread in registration rates across examiners depicted in Figure 7 is notably wider than the spread in placebo registration rates depicted in Figure 8.<sup>86</sup>

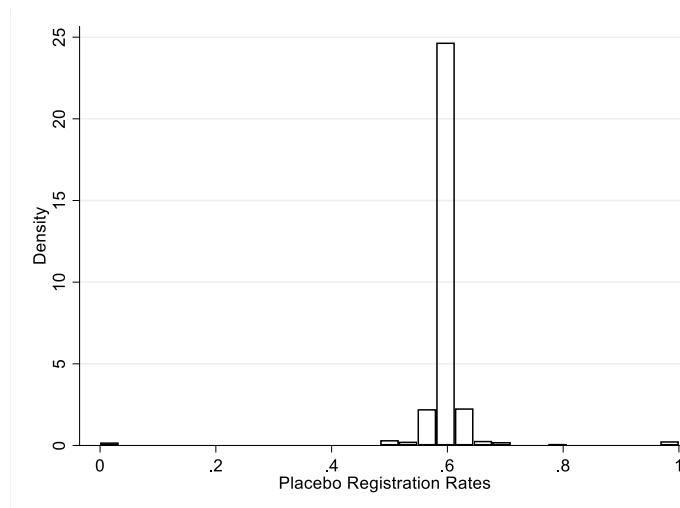
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86. As with the publication-rate outcomes, we also conduct a rationality check in which we fail to reject the hypothesis that these placebo registration rates are equal across examining attorneys.

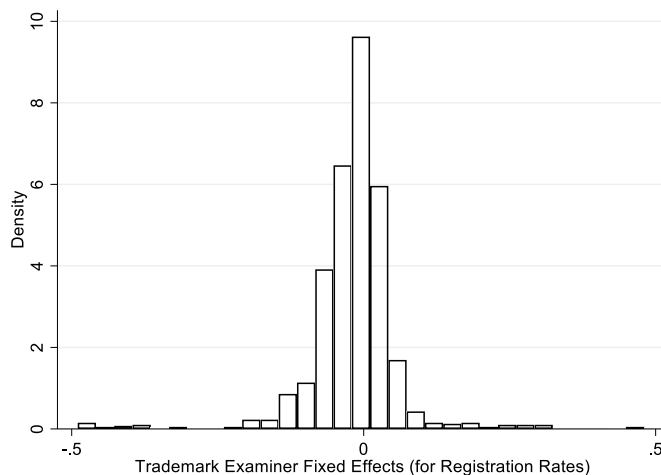
**FIGURE 7: FREQUENCY DISTRIBUTION OF REGISTRATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 8: FREQUENCY DISTRIBUTION OF PLACEBO REGISTRATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 9: FREQUENCY DISTRIBUTION OF ESTIMATED EXAMINER FIXED EFFECTS FOR REGISTRATION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



#### *D. Sustained-Opposition-Rate Analysis*

We next turn to an evaluation of an outcome that is not necessarily a specific decision made by the trademark-examining attorney but that is arguably a reflection of the quality of work completed by the trademark-examining attorney. For these purposes, we consider the likelihood that the underlying application ultimately leads to a third-party opposition that is sustained by the TTAB. We calculate this sustained-opposition rate using the number of sustained oppositions associated with an examining attorney's reviews as the numerator and all of the applications reviewed by the examining attorney as the denominator.<sup>87</sup>

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87. Although it would indeed be an interesting exercise, we leave it for future analysis to consider variation in sustained-opposition rates across applications conditional on the level of publication rates of the associated examining attorney. For instance, conditional on the applications gained approval from a lenient examining attorney, what is the distribution of sustained-opposition rates across applications? To some extent this might provide interesting insights into the nature of the TTAB. Our goal in this Article, however, is to explore variability across trademark-examining attorneys. As such, to calculate an opposition rate specific to an

One important difference between the distribution of sustained-opposition rates and the above distributions is that the rates of sustained oppositions are much lower, with a very meaningful mass at 0. Nonetheless, despite this left censoring at 0 and this overall notably lower mean, we continue to document arguably significant variation relative to this mean. As demonstrated in Table 1, the average likelihood that an application is associated with a sustained opposition by TTAB is roughly 0.7 percent. That is, roughly 7 out of 1000 applications reviewed by an average examiner are associated with a sustained opposition by TTAB. We find a standard deviation of roughly 0.6 percent around this mean, in which case we find a roughly 0.85 COV with respect to this measure. This COV is notably higher than the degree of variation, relatively speaking, associated with the publication and registration outcomes.

Figure 10 allows us to visualize this variation across examining attorneys. The large mass at 0 is evident from this figure, with roughly 10 percent of trademark-examining attorneys not being associated with sustained oppositions. To provide a better sense of the right tail of this distribution, consider the examiner in the 98th percentile of the distribution of sustained-opposition rates across examining attorneys. Although the mean examining attorney is associated with roughly 7 out of 1000 applications receiving a sustained opposition, the examiner in the 98th percentile has a sustained opposition rate roughly three times that level, with roughly 22 out of 1000 applications receiving a sustained opposition.

Interestingly, as can be visualized by the fixed-effects frequency distribution depicted in Figure 12 and by the reported standard deviation in Table 2 in comparison with Table 1, we actually find a wider degree of variation in this outcome when adjusting examining attorneys' rates for the full set of observable application characteristics.

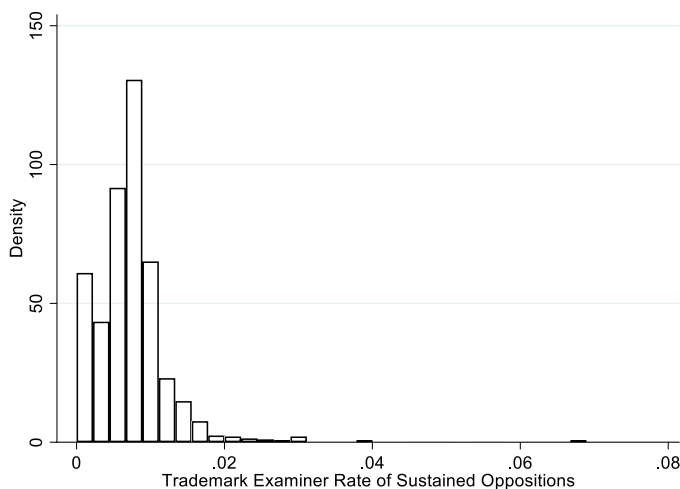
Finally, we note that the F-test results suggest that we can easily reject the null hypothesis of equal sustained-opposition rates across examining attorneys, with a p-value of less than 0.000. Likewise, the degree of variation in actual and adjusted rates that we observe are greater than that observed of placebo sustained-opposition rates across examining attorneys (Figure 11), though arguably the difference

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examining attorney reflective of variability in this outcome across examining attorneys, it is natural to normalize this outcome by the reviews completed by that attorney.

between actual and placebo variation appears smaller in this case relative to the publication- and registration-rate outcomes.<sup>88</sup>

**FIGURE 10: FREQUENCY DISTRIBUTION OF SUSTAINED-OPPOSITION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**

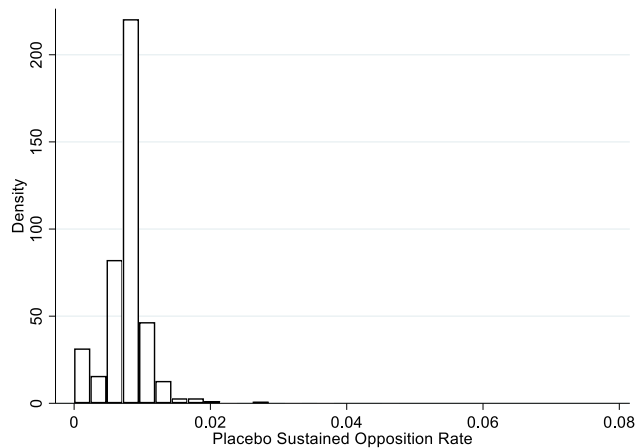


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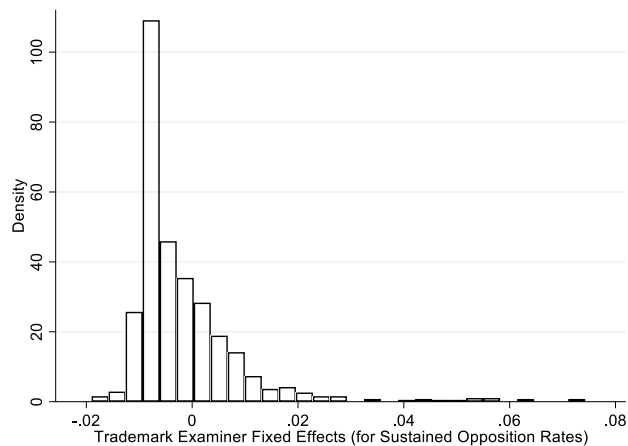
88. As with the above outcomes, we also conduct a rationality check in which we fail to reject the hypothesis that these placebo sustained-opposition rates are equal across examining attorneys.



**FIGURE 11: FREQUENCY DISTRIBUTION OF PLACEBO SUSTAINED-OPPOSITION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 12: FREQUENCY DISTRIBUTION OF ESTIMATED EXAMINER FIXED EFFECTS FOR SUSTAINED-OPPOSITION RATES (UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



*E. Application-Duration Analysis*

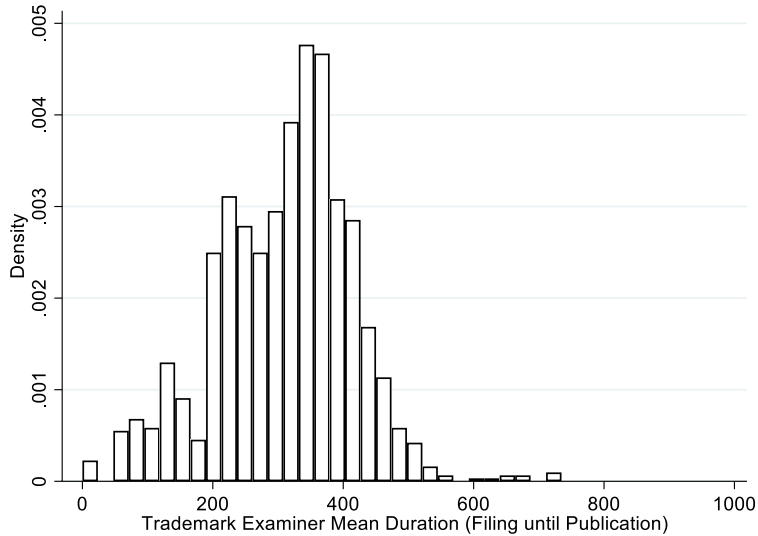
In our final empirical exercise, we explore a measure of processing efficiency. Specifically, we explore heterogeneity in the length of time in days it takes trademark-examining attorneys to reach a publication decision. For those applications that get published, this represents the length of time between the date of filing and the date of publication. For those applications that were not published, this represents the length of time between the date of filing and the date of abandonment of the application. We focus on the publication-rate duration rather than the length of time between filing and the date of registration given that examining attorneys arguably have greater control over the former and given the substantial impacts that application type—that is, use versus intent-to-use—have on the length of time between publication and registration.

We find that, on average, it takes roughly 315 days to reach this publication decision, with a standard deviation around this mean of roughly 135 days (see Table 1). With a resulting COV of 0.43, this degree of heterogeneity is even greater than that associated with the publication rates and registration rates themselves. However, this duration outcome represents the one outcome in which we find that adjusting examining attorneys' durations for the observation characteristics of the applications they review leads to a decent narrowing of this spread—much of this is due to controlling for the year in which the application is reviewed. We find that the standard deviation falls by roughly half when instead looking at the estimated examiner fixed effects for this measure (see Table 2). Even in this instance, however, we continue to observe a substantial degree of variation across trademark-examining attorneys in publication durations, with a standard degree of swing around the mean inherent-duration length of over two months. This conclusion is reinforced by observing the full distribution of raw and adjusted publication-decision durations, as depicted in Figures 13 and 15.

In Figure 14, we present the distribution of placebo publication-decision durations across examining attorneys. The degree of actual variation considerably exceeds the degree of this placebo variation in publication-decision durations, bolstering the inference that examiners

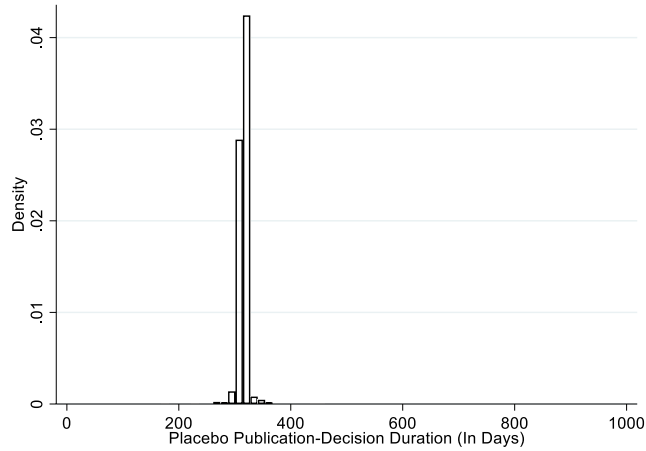
vary considerably in their review durations.<sup>89</sup> The results of the associated F-test only reinforce this conclusion (see Table 1).

**FIGURE 13: FREQUENCY DISTRIBUTION OF PUBLICATION-DECISION DURATION (IN DAYS, UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**

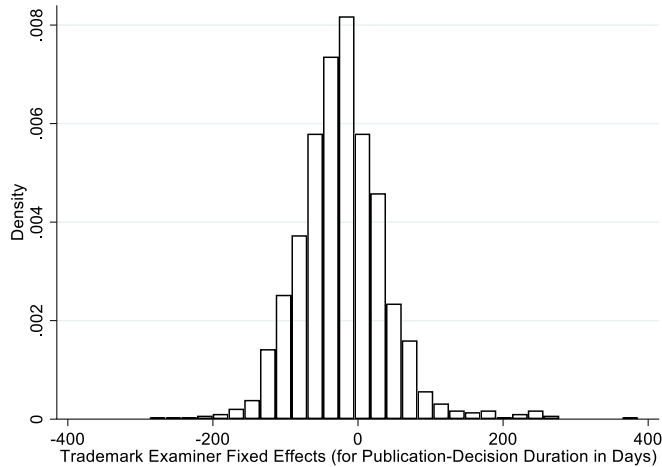


89. To generate a placebo duration, we assign each application a random placebo value drawn from a normal distribution with a mean of 315 and a standard deviation of 135—that is, the mean and standard deviation from the actual empirical distribution of durations from our data. As with the other outcomes, we also conduct a rationality check in which we fail to reject the hypothesis that these placebo duration values are equal across examining attorneys.

**FIGURE 14: FREQUENCY DISTRIBUTION OF PLACEBO PUBLICATION-DECISION DURATION (IN DAYS, UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



**FIGURE 15: FREQUENCY DISTRIBUTION OF ESTIMATED EXAMINER FIXED EFFECTS FOR PUBLICATION-DECISION DURATION (IN DAYS, UNWEIGHTED) ACROSS TRADEMARK-EXAMINING ATTORNEYS**



## IV. IMPLICATIONS AND DISCUSSION

The above empirical analysis raises clear concerns over the inequities of the administrative process by demonstrating that the examining attorney to which applicants are randomly assigned may have a substantial bearing on their likelihood of being published; their likelihood of being registered; the scope of any ultimate protection received (as proxied by an allowance for publication on the first substantive decision); their likelihood of having a third party successfully oppose their application; and the speed by which they receive a decision by the Trademark Office. Again, to use the example from above, if one took fifty trademark applicants at random, one of them would receive an examining attorney offering a chance of success at the publication stage as low as 56 percent, whereas another one of those fifty applicants would receive a chance of success as high as 100 percent based on her assigned examining attorney. This disparity is striking considering that the publication-rate distribution is the tightest of those that we depict. The spreads in the other outcomes that we explore—in relative, unit-free terms—are even greater. This degree of substantial variation in outcomes across trademark-examining attorneys remains true even after accounting for a rich degree of application characteristics that may also impact these outcomes.

Considering that the registrability criteria are meant to track the economic justifications for trademark protection, one might assume that, conditional on the relevant application parameters, there exists an ideal social welfare maximizing manner of applying these criteria. Yet the fact that we observe such notable variations in important Trademark Office outcomes across examining attorneys suggests that the Trademark Office may be erring considerably—perhaps on either side—in attaining any such ideal. In turn, the consequences may involve considerable social welfare losses.

Of course, heterogeneity is not necessarily problematic from a social welfare perspective to the extent that it reflects experimentation across the examining corps—that is, an attempt to uncover what this ideal decision-making process looks like. However, if one thought that the variation that we observed represents beneficial degrees of experimentation, then one would expect that we would nonetheless begin to observe convergence over time as examining attorneys learn from prior experimentation and begin to coalesce around optimal practices. Unfortunately, we do not find robust markers suggestive of any such convergence. Consider, for instance, the publication decision.

The COV in publication rates across examiners is just as high in the 2010s as it was in the 1980s.

To be clear, rampant variations in outcomes across randomly assigned examining attorneys implicate more than just concerns over economic efficiency. They also raise apprehensions over the distribution of resources across applicants, along with concerns over administrative justice.

Ultimately, given that heterogeneity in trademark-examining-attorney behaviors threatens both equity and social welfare, it is important for future research in this area to identify the sources of such heterogeneity. With such information in hand, either the Trademark Office or Congress can be in a position to adopt personnel, training, supervising, and related policies to reduce these disparities while at the same time converging practices around the social welfare maximizing approaches.

The patent side of the U.S. Patent and Trademark Office has arguably received more attention on such matters. Professors Iain Cockburn, Samuel Kortum, and Scott Stern's noteworthy article demonstrated similar concerns in the patent context.<sup>90</sup> Their analysis inspired us to conduct a series of studies to unpack the determinants of patent-examiner grant rates and the variation in such rates across examiners, among other Patent Office outcomes. Through this series of studies, we have found that key determinants of patent-examiner behavior include (1) the fee structure of the agency, which creates grant incentives that vary across technologies and applicant types;<sup>91</sup> (2) the availability of repeat-filing mechanisms, which likewise creates grant incentives that vary across technologies;<sup>92</sup> (3) the amount of time extended to patent examiners, which varies across technology and examiner General-Schedule pay level along with the experience level of the examiner;<sup>93</sup> (4) the patent examiner's hiring-year cohort, which

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90. See Iain M. Cockburn, Samuel Kortum & Scott Stern, *Are All Patent Examiners Equal? Examiners, Patent Characteristics, and Litigation Outcomes*, in *Patents in the Knowledge-Based Economy* 19, 28 (Wesley M. Cohen & Stephen A. Merrill eds., 2003).

91. Michael D. Frakes & Melissa F. Wasserman, *Does Agency Funding Affect Decisionmaking?: An Empirical Assessment of the PTO's Granting Patterns*, 66 VAND. L. REV. 67, 70, 96 (2013).

92. Michael D. Frakes & Melissa F. Wasserman, *Does the U.S. Patent and Trademark Office Grant Too Many Bad Patents?: Evidence from a Quasi-Experiment*, 67 STAN. L. REV. 613, 617 (2015).

93. Michael D. Frakes & Melissa F. Wasserman, *Is the Time Allocated to Review Patent Applications Inducing Examiners to Grant Invalid Patents?: Evidence from Microlevel Application Data*, 99 REV. ECON. & STAT. 550, 550–51 (2017).

may be strongly influenced by the agency-driven culture under which they were trained—a culture that is known to vary considerably over time within the Patent Office,<sup>94</sup> and (5) patent examiners' peer groups.<sup>95</sup>

Though Cockburn, Kortum, and Stern did not consider the patent-application grant rate among their outcomes of consideration, we demonstrate in Table 1 of this Article that patent-application grant rates do vary considerably across patent examiners, with a COV of 0.29, which roughly corresponds with the degree of variation documented in the trademark context. In light of the equitable and welfare harms that may stem from disparities in trademark-examining-attorney decision-making, it is time for the Trademark Office to get as much attention in such matters as has been received by the Patent Office, both by policymakers and by researchers interested in uncovering the causes of such disparities.

#### CONCLUSION

This Article conducts the first large-scale examination of trademark-examining-attorney decision-making. We find meaningful variation in trademark examiners' registration rates, first-substantive-review publication rates, overall publication rates, and sustained-opposition rates at TTAB, along with meaningful variation in the speed by which the examining attorney provides a final decision. These differences hold even after accounting for a rich degree of application characteristics that may also impact these outcomes. Such differences in trademark-examining-attorney determinations raise concerns regarding equity and social welfare. Future research is needed to determine the causes of the heterogeneity documented in this Article and provide the Trademark Office with guidance as to how to bring more homogeneity to trademark-examiner decisions.

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94. Michael D. Frakes & Melissa F. Wasserman, *Patent Office Cohorts*, 65 DUKE L.J. 1601, 1605 (2016).

95. Michael D. Frakes & Melissa F. Wasserman, *Knowledge Spillovers and Learning in the Workplace: Evidence from the U.S. Patent Office 6–7* (Nat'l Bureau of Econ. Research, Working Paper No. 24159, 2017), <https://www.nber.org/papers/w24159.pdf> [<https://perma.cc/97AF-CAQU>].