

The Trademark Reporter®



The Law Journal of the International Trademark Association

A Tale of Four Decades: Lessons from USPTO Trademark Prosecution Data

Deborah R. Gerhardt and Jon J. Lee

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A TALE OF FOUR DECADES: LESSONS FROM USPTO TRADEMARK PROSECUTION DATA

By Deborah R. Gerhardt and Jon J. Lee***

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INTRODUCTION

The great advantage of empirical research is that it shows patterns. Instead of hearing one voice, empirical research features the chorus of all voices (or a representative sample) together. A single voice may be typical or extraordinary—we cannot know without listening to it in relation to others. Empirical studies offer this high-level perspective. The entire chorus offers a blend of the entire population, and by pulling out some sections we can see patterns in discrete categories. Applying this strategy to new datasets can help us discern trends. By learning which variables are linked to success and failure, research can prompt conversations that drive policy decisions.

Over the past decade, United States Patent and Trademark Office (“USPTO”) trademark prosecution data has made it possible to meaningfully inform intellectual property scholarship, law, and policy. This article reviews and updates much of that scholarship by mining four decades of trademark application data from a newly released database. Part I sets the foundation for understanding empirical trademark research by reviewing the process by which brand owners register trademarks with the USPTO. It begins with an overview of federal registration process and then explains the significant benefits of federal trademark registration. In Part II, we survey prior empirical research conducted on trademark registration and litigation data. And then, in Part III, we describe the methodology we employ using a newly released USPTO dataset and then empirically analyze trademark registration data to update the prior research and clarify some of the important variables that correlate with success in trademark prosecution. Finally, we summarize our conclusions.

I. USPTO TRADEMARK REGISTRATION

The USPTO is a federal government agency that issues U.S. patents and registers trademarks. Trademark registration is premised on Congressional power to regulate interstate commerce under Article I, Section 8, Clause 3 of the Constitution. Pursuant to these powers, Congress created the USPTO as a division of the Department of Commerce. In addition to administering patents and trademarks, the USPTO advises the President of the United States, the Secretary of Commerce, and other U.S. officials on intellectual property law and policy to promote innovation through stronger and more effective IP protection. On its website, <https://www.uspto.gov/>, the agency states that:

The USPTO furthers effective IP protection for U.S. innovators and entrepreneurs worldwide by working with other agencies to secure strong IP provisions in free trade and other international agreements. It also provides

training, education, and capacity building programs designed to foster respect for IP and encourage the development of strong IP enforcement regimes by U.S. trading partners.¹

The USPTO employs more than 10,000 people. Its main offices span multiple interconnected buildings in Alexandria, Virginia. These offices house administrative staff, patent and trademark examiners, engineers, scientists, economists, analysts, librarians, and computer scientists. On its ground floor, one can visit a small museum and a gift shop with merchandise for patent and trademark fans. The USPTO also has regional offices in Dallas, Denver, Detroit, and San Jose.² At the end of the 2021 fiscal year, the USPTO employed 8,073 patent examiners, 662 trademark examining attorneys, and 27 administrative trademark judges.³ Before launching into our empirical study, we will review some basic legal principles necessary for understanding what it takes to succeed in prosecuting marks before the USPTO.

A trademark is a symbol that identifies a product or service as coming from a particular source in a way that distinguishes that source from its competition. A symbol may be protected as a trademark only if it is distinctive enough “to identify and distinguish” goods or services, “from those manufactured or sold by others and to indicate the source of the goods, even if that source is unknown.”⁴ Distinctiveness works as follows. When we see a shoe marked with the word “Nike” or its iconic swoosh, we understand that the shoe comes from Nike, Inc. and not one of its competitors. In addition to words and logos, U.S. law recognizes that nontraditional subject matter, such as product design, décor, color, and sound, may also serve as trademarks.

Trademarks are an especially durable form of intellectual property in the United States. Most forms of intellectual property have set end dates. All copyrights and patents enter the public domain after their term of protection expires, and trade secrets lose their protection upon disclosure. Trademarks are different. Trademark rights last as long as a mark’s owner continues to use the symbol in commerce.⁵ While steps must be taken to secure other

¹ *About Us*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/about-us> (last visited June 13, 2022).

² U.S. Pat. & Trademark Off., *Performance and Accountability Report, Fiscal Year 2021* 15 (2021), <https://www.uspto.gov/sites/default/files/documents/USPTOFY21PAR.pdf>.

³ *Id.* at 19.

⁴ U.S. Trademark (Lanham) Act of 1946, Pub. L. No. 79-489, § 45, 60 Stat. 427 (1946) (codified as amended at 15 U.S.C. § 1127).

⁵ Lanham Act § 14, 15 U.S.C. § 1064 (stating when a trademark may be cancelled); §§ 8-9, 15 U.S.C. §§ 1058-59 (laying out the duration and renewal terms that govern federal trademarks); *see also* *McAirlaids, Inc. v. Kimberly-Clark Corp.*, 756 F.3d 307, 310 (4th Cir. 2014) (stating that trademark law can provide indefinite protection unlike patent

forms of intellectual property, trademark rights in the U.S. arise through use in commerce even if the holder does not seek registration.⁶ While patent and copyright law is exclusively federal, for trademarks, federal and state statutes and common law protect mark owners against infringement, unfair competition, dilution, false advertising, use of their marks in domain names, and harm to business reputation.⁷

Although the first federal trademark law was enacted in 1870, the current statutory scheme, known as the Lanham Act, was enacted in 1946.⁸ The Lanham Act does not exclude any subject matter that may function as a mark on account of its nature. The definition states that a mark may consist of “*any* word, name, symbol, or device, or any combination” of these elements.⁹ While not limited in subject matter, the definition narrows protectible marks to symbols that are distinctive, used in commerce, and not otherwise expressly barred by the Lanham Act. The use in commerce requirement differentiates United States law from many other jurisdictions that extend trademark rights to entities on a first to file basis (like Internet domain names) regardless of whether a mark has ever been used in commerce.

A. The Federal Trademark Application Process

Federal trademark applicants must complete a multi-page form and pay an application fee.¹⁰ An applicant must identify the specific

law, which provides protection for only a limited period); *W.T. Rogers Co. v. Keene*, 778 F.2d 334, 337 (7th Cir. 1985) (explaining that, upon certain conditions, trademarks may provide “an indefinite term of protection”); *Saratoga Vichy Spring Co. v. Lehman*, 625 F.2d 1037, 1043-44 (2d Cir. 1980) (discussing the abandonment of a trademark); *King-Seeley Thermos Co. v. Aladdin Indus.*, 321 F.2d 577, 579 (2d Cir. 1963) (noting that through the holder’s lack of care the trademark “Thermos” became a generic term and entered the public domain); *Bayer Co. v. United Drug Co.*, 272 F. 505, 510-15 (S.D.N.Y. 1921) (finding that the trademark “Aspirin” fell into the public domain due, in part, to the trademark holders’ actions). Trademark owners must take some additional steps, such as periodically certifying continued use, in order to maintain federal registration. Lanham Act §§ 8-9, 15 U.S.C. §§ 1058-59.

⁶ Lanham Act § 43, 15 U.S.C. § 1125 (providing a federal cause of action for infringement and dilution for all marks, including those not having federal registration).

⁷ See *id.* at §§ 32, 43, 15 U.S.C. §§ 1114, 1125 (providing for various federal causes of action); see also *J. Thomas McCarthy, McCarthy on Trademarks and Unfair Competition* § 22:1.50, at 22-10–22-21 (5th ed. 2022) [hereinafter *McCarthy*] (discussing state law causes of action and their relationship to Lanham Act).

⁸ U.S. Trademark Act of 1946, Pub. L. No. 79-489, 60 Stat. 427 (1946).

⁹ Lanham Act § 45, 15 U.S.C. § 1127 (emphasis added).

¹⁰ *Trademark Process*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/trademarks-getting-started/trademark-process> (last visited June 13, 2022) [hereinafter *Trademark Process*]. The fee ranges from \$250 to \$750 for each mark in each class of goods and services. *USPTO Fee Schedule*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule#Trademark%20Fees> (last visited June 13, 2022).

trademark it plans to use in connection with a concrete set of goods and services. Legal counsel experienced with navigating the USPTO registration system may be especially helpful in selecting a mark that meets the statutory requirements and completing the application in a way that minimizes the chance that the application will prompt an objection from a USPTO trademark examiner.

Applicants may choose among one of five filing bases. Section 1(a), known as “use” or “use-based,” is for applicants who have already used their mark in commerce when the application is filed.¹¹ Section 1(b), the “intent to use” (“ITU”) basis, was added as part of the Trademark Law Revision Act of 1988 for applicants who have a bona fide intent to use a mark in commerce but have not yet done so.¹² Although at first glance the addition of this filing basis might appear to extend trademark protection to marks prior to their use, that is not the case because the USPTO will not register the mark until the applicant presents evidence of use.¹³ The advantage of an ITU filing is that it enables applicants to receive nationwide priority for the mark as of the filing date even if use has not yet begun.

The other three filing bases may be used by applicants who have applied to register their marks abroad. Section 44(e), referred to as “foreign registration,” may be selected by applicants who have already obtained a trademark registration for the same mark in another country.¹⁴ When an application is based on a foreign registration, the USPTO will register the mark in the United States without proof of use in U.S. commerce if at the time of the U.S. application the applicant expresses a bona fide intent to use the mark in U.S. commerce.¹⁵ The applicant therefore need not demonstrate use to the USPTO until they file a Section 8 declaration of use, which is not due until a mark has been registered in the United States for six years.¹⁶

Section 44(d), referred to as “foreign priority,” is a filing basis for applicants who previously applied for trademark registration in another country but the foreign registration has not yet been granted.¹⁷ If the USPTO application was filed within six months of the foreign application filing date, the applicant will have nationwide priority from the date on which the foreign application

¹¹ Lanham Act § 1(a), 15 U.S.C. § 1051(a).

¹² See generally Trademark Law Revision Act of 1988, Pub. L. No. 100-667 (Nov. 16, 1988).

¹³ Lanham Act § 7(c), 15 U.S.C. § 1057(c).

¹⁴ Lanham Act § 44(e), 15 U.S.C. § 1126(e).

¹⁵ *Id.*

¹⁶ *Id.* at § 8(a), 15 U.S.C. § 1058(a). However, a trademark registered pursuant to Section 44(e) could not be enforced until it had been used in commerce, *Lodestar Anstalt v. Bacardi & Co. Ltd.*, 31 F.4th 1228, 1250 (9th Cir. 2022), and three years of nonuse would constitute prima facie evidence of abandonment. See *id.* § 45, 15 U.S.C. § 1127.

¹⁷ *Id.* at § 44(d), 15 U.S.C. § 1126(d).

was filed.¹⁸ Because Section 44(d) is not an independent basis for registration, applicants must satisfy another basis prior to registration, which will most frequently be Section 44(e) once the foreign registration has been granted.

After the United States joined the Madrid Protocol, it implemented Section 66(a) to extend the reach of registration of a trademark in multiple jurisdictions to the United States.¹⁹ As with the Section 44(e) filing basis, applicants relying on Madrid need not demonstrate use in the United States prior to registration if they attest to a good faith intent to use the mark in commerce.²⁰ Unlike the other filing bases, the Madrid basis cannot be combined with any of the other four,²¹ which means that the scope of protection can be no broader than that conferred by the registration in the origin country.²²

To register a trademark, applicants must overcome two hurdles: examination by the USPTO and potential opposition by third parties. Section 1 of the Lanham Act identifies the necessary components of a trademark application. These include specification of the applicant's domicile and citizenship, the goods and services in connection with which the applicant is using, or has a bona fide intention to use, the mark, and a drawing of the mark.²³ After an application is submitted, the USPTO assigns it a serial number and uploads the application information into the USPTO's publicly available Trademark Electronic Search System ("TESS") online database.²⁴ Once an application appears in TESS, any member of the public can follow its progress. Next, a USPTO trademark examiner is assigned to review the application, identify any defects, and search for confusingly similar pending or registered marks that may have priority.²⁵

If an applicant fails to satisfy any requirement, the trademark examining attorney will issue an office action and afford the applicant time to remedy the defect.²⁶ Before proceeding to registration, the applicant must amend the application or explain why the examining attorney's objection was unwarranted.²⁷ If the

¹⁸ *Id.*

¹⁹ Lanham Act § 65(a), 15 U.S.C. § 1141e(a).

²⁰ *See id.* at § 66(a), 15 U.S.C. § 1141f(a).

²¹ 37 C.F.R. §§ 2.34(b), 2.35(a) (2022).

²² *See* John M. Murphy, *Demystifying the Madrid Protocol*, 2 Nw. J. Tech. & Intell. Prop. 2, 15 (2004) (discussing the advantages and disadvantages of Madrid filings).

²³ Lanham Act § 1(a)(2), (b)(2), 15 U.S.C. § 1051(a)(2), (b)(2).

²⁴ *Trademark Electronic Search System (TESS)*, U.S. Pat. & Trademark Off., <https://tmsearch.uspto.gov> (last visited June 7, 2022) [hereinafter *TESS*].

²⁵ *Trademark Process*, *supra* note 10.

²⁶ *Id.*

²⁷ *Id.*

applicant provides no response or an unsatisfactory one, the application will fail and thereafter be identified in TESS as “dead.” If the applicant satisfies the trademark examining attorney, which may involve multiple rounds of office actions and responses, the mark is published in the USPTO’s Official Gazette.²⁸

Publication marks success in the USPTO’s examination of the application but opens the second window of vulnerability.²⁹ Once a mark is published, third parties have thirty days in which to oppose the application.³⁰ Any third party who thinks it may be harmed if the mark is registered may initiate an opposition proceeding.³¹ While most applications receive at least one office action, only about 3% are challenged through opposition proceedings.³² If no opposition is filed (or if an opposition is filed and the Trademark Trial and Appeal Board denies the opposition), marks filed on a use basis may proceed immediately to registration.³³ ITU applicants must complete an additional step. After publication, the USPTO will issue a “Notice of Allowance,” indicating that registration will occur once the applicant submits evidence of use in commerce.³⁴ That evidence will be reviewed before a registration certificate is issued to make sure the use matches the claims in the application and that an appropriate specimen supports the use.³⁵ The registration process is illustrated in Figure I below.

²⁸ *Id.*

²⁹ *Id.*

³⁰ Lanham Act § 13(a), 15 U.S.C. § 1063(a).

³¹ *Id.*

³² Deborah R. Gerhardt & Jon P. McClanahan, *Do Trademark Lawyers Matter?*, 16 Stan. Tech. L. Rev. 583, 620 (2013).

³³ Lanham Act § 13(b)(1), 15 U.S.C. § 1063(b)(1).

³⁴ *Id.* at §§ 1(b), 13(b)(2), 15 U.S.C. §§ 1051(b), 1063(b)(2).

³⁵ *Id.* at § 1(d), 15 U.S.C. § 1051(d).

Agreement.³⁸ The most common obstacle to registration is Section 2(d), which bars applications for marks that are confusingly similar to another active record in the USPTO trademark database.³⁹

B. Benefits of Federal Trademark Registration

Brand owners can significantly expand the geographic scope, means for maintaining market distinctiveness, and economic value of their marks through federal registration. Although registration is not necessary to obtain protection, mark owners often seek to buttress their rights by registering their marks with the USPTO.⁴⁰ Once registration is achieved, it must be renewed regularly with payment of a fee and a Section 8 declaration attesting to continued use.⁴¹ Federal registration confers significant benefits on mark owners by augmenting protection, minimizing costs, and strengthening the economic value of a mark.

Nationwide protection is one of the primary benefits of federal trademark registration. Federal registration confers priority throughout the United States, even if the mark is not being used nationwide.⁴² In this way, it minimizes priority battles by giving the first registrant nationwide priority without having to prove first use in a particular geographic market. Therefore, federal registration may be more cost effective and efficient than securing rights through actual expansion into new territories.⁴³ Although federal

³⁸ Lanham Act § 2(e)(3), 15 U.S.C. § 1052(e)(3); *see also In re California Innovations, Inc.*, 329 F.3d 1334, 1337-39 (Fed. Cir. 2003) (discussing revisions to the Lanham Act due to NAFTA and their impact on the geographic misdescriptiveness determination).

³⁹ *See Possible Grounds for Refusal of a Mark*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/trademark/additional-guidance-and-resources/possible-grounds-refusal-mark> [<https://perma.cc/6E3L-BJ85>] (last visited Dec. 2, 2022).

⁴⁰ *See, e.g.*, Lanham Act § 7(b), 15 U.S.C. § 1057(b) (presumption of validity); § 15, 15 U.S.C. § 1065 (incontestability); § 35, 15 U.S.C. § 1117 (damages); § 39, 15 U.S.C. § 1121 (federal jurisdiction for infringement claims); *B & B Hardware, Inc. v. Hargis Indus., Inc.*, 575 U.S. 138, 142 (2015) (“Registration is significant. The Lanham Act confers ‘important legal rights and benefits’ on trademark owners who register their marks.”) (internal citations omitted); *In re Brunetti*, 877 F.3d 1330, 1344 (Fed. Cir. 2017), *aff’d sub nom. Iancu v. Brunetti*, 139 S. Ct. 2294 (2019) (listing benefits).

⁴¹ *See* Lanham Act §§ 8-9, 15 U.S.C. §§ 1058-1059; *Trademark Process*, *supra* note 10.

⁴² Lanham Act §§ 22, 7(c), 15 U.S.C. §§ 1072, 1057(c); *see also Zirco Corp. v. Am. Tel. & Tel. Co.*, 21 U.S.P.Q.2d 1542 (T.T.A.B. 1991) (discussing constructive use and priority for intent-to-use filings).

⁴³ A limited area exception provides some protection to mark users who do not seek registration. Lanham Act §§ 2(d) 7(c), 15 U.S.C. §§ 1052(d), 1057(c). For example, when two firms develop the same mark in different locations and one applies to register the mark, if its registration succeeds, the registrant will have nationwide priority except in geographic locations where the other business had used the mark in good faith prior to the registrant’s application date. *See, e.g., Dudley v. Healthsource Chiropractic, Inc.*, 883 F. Supp. 2d 377, 389 (W.D.N.Y. 2012) (“Federal registration, however, does not give priority over persons who had used and had not abandoned the mark prior to filing. A senior user retains common law rights to exclusively use the mark within its territory of prior use.”) (internal citations omitted).

law provides protections to users who fail to seek federal registration, it effectively locks them into their common law territories, giving the users who registered priority in the rest of the nation.⁴⁴ Beyond these protections, federal registration empowers the registrant to seek an injunction requiring other later adopters to stop using any confusingly similar symbols when the registrant expands into their geographic territory.⁴⁵ For all of these reasons, the possibility of securing nationwide priority is a strong incentive for seeking federal registration.

Registration constitutes *prima facie* evidence of the validity of the registered mark, its registration, ownership, and “the owner’s exclusive right to use the registered mark in commerce on or in connection with the goods or services specified in the certificate, subject to any conditions or limitations stated in the certificate.”⁴⁶ Owners may use an “®” registration notice to their marks,⁴⁷ signaling that they own intellectual property rights and may be prepared to assert them. Federal registration also enables mark owners to obtain enhanced statutory damages for counterfeiting.⁴⁸

Additional benefits from registration result from the mark’s presence in TESS, the USPTO online search database.⁴⁹ New entrants seeking to determine if a symbol is available for registration often search TESS to see if someone has already secured rights in that word or design. If the symbol has already been registered for similar goods or services, the USPTO will block a later application while that mark is live on the Register. If a new entrant sees the conflict, it may avoid an inevitable office action by choosing another symbol with no obvious conflicts in the TESS data. In this way, a mark’s presence in TESS can serve as a powerful deterrent to new entrants who might otherwise adopt it. If a new entrant misses a confusingly similar registration and files an application to register a mark that is live in the TESS data, the trademark examining attorney will likely identify the conflict during its initial examination and deny the new entrant’s application. In this way, the USPTO confers an additional benefit on registrants, as it protects their mark from confusingly similar registrations, without

⁴⁴ Lanham Act §§ 2(d) 7(c), §§ 1052(d), 1057(c); *Dudley*, 883 F. Supp. 2d at 389.

⁴⁵ *See, e.g.*, *Dawn Donut Co. v. Hart’s Food Stores, Inc.*, 267 F.2d 358, 365 (2d Cir. 1959) (denying injunctive relief after finding no likelihood of confusion but clarifying that “the plaintiff may later, upon a proper showing of an intent to use the mark at the retail level in defendant’s market area, be entitled to enjoin defendant’s use of the mark”).

⁴⁶ Lanham Act § 7(b), 15 U.S.C. § 1057(b).

⁴⁷ *Id.* at § 29, 15 U.S.C. § 1111.

⁴⁸ *Id.* at § 34(d)(1)(B), 15 U.S.C. § 1116(d)(1)(B) (“[A] counterfeit of a mark that is registered on the principal register in the United States Patent and Trademark Office for such goods or services sold, offered for sale, or distributed and that is in use, whether or not the person against whom relief is sought knew such mark was so registered.”).

⁴⁹ *TESS*, *supra* note 24.

the registrant taking any action or perhaps even knowing of the conflict.⁵⁰

The USPTO maintains two registers: the Principal Register, for marks that comply with all statutory requirements, and the Supplemental Register, for marks that are not yet distinctive. If a mark is capable of acquiring distinctiveness, it may be placed on the Supplemental Register until its owner gathers evidence of secondary meaning and reapplies for inclusion on the Principal Register.⁵¹ Supplemental registration does not confer enforceable trademark rights, but it does permit the mark owner to use the “®” symbol to indicate its mark is registered with the USPTO.⁵² This notice, as well as the mark’s presence in the TESS data, may provide some deterrent value, but the other benefits of registration on the Principal Register are not conferred through Supplemental registration.⁵³ Throughout our analysis we use “registration” to refer to a mark’s presence on the Principal Register as it is the USPTO’s ultimate measure of success in trademark prosecution. We refer to the Supplemental Register by using the term “Supplemental” expressly when the distinction is warranted.

Since the USPTO made its trademark data available for public research, scholars from multiple disciplines have discovered many patterns revealed in the data. The following section provides an overview of this emerging field of research.

II. PRIOR EMPIRICAL TRADEMARK RESEARCH

The team of economists at the USPTO publish data affirming the substantial influence that IP-intensive industries have on the U.S. economy and employment.⁵⁴ Their 2021 Report on Intellectual Property and the U.S. Economy found that trademarks “enhance the value of both patented and unpatented innovations, as well as reputation, by identifying a good’s or service’s source of origin.”⁵⁵ In evaluating output, the study reports that in 2019, the group of IP-intensive industries accounted for \$7.8 trillion of the gross domestic product. Although industries may fit within more than one area of IP, trademark-intensive industries led the pack at nearly \$7.0 trillion, design and utility patent-intensive industries accounted for

⁵⁰ See Gerhardt & McClanahan, *supra* note 32, at 589.

⁵¹ See Lanham Act § 23, 15 U.S.C. § 1091.

⁵² See *id.* at § 29, 15 U.S.C. § 1111 (providing that all registrants can provide statutory notice, which includes marks on the Supplemental Register).

⁵³ See Gerhardt & McClanahan, *supra* note 32, at 587-88 (comparing and contrasting the principal and supplemental registers).

⁵⁴ Andrew A. Toole et al., Intellectual Property and the U.S. Economy: Third Edition, at ii (U.S. Pat. & Trademark Off. 2021), <https://www.uspto.gov/sites/default/files/documents/uspto-ip-us-economy-third-edition.pdf>.

⁵⁵ *Id.* at 1.

nearly \$4.5 trillion each, and copyright-intensive industries accounted for just under \$1.3 trillion.⁵⁶

In 2010, the USPTO first posted bulk data containing information from decades of trademark registration applications, making it possible for scholars to analyze hundreds of variables without filing a Freedom of Information Act request. Since then, United States trademark registrations have attracted significant scholarly attention. In an earlier study, we found that trademark applicants were more likely to succeed to publication and registration if they were assisted by legal counsel, and that the success rates were even higher if the applicant's lawyer had prosecuted more than thirty applications.⁵⁷ Below, we update those findings with more recent data and greater granularity in attorney experience levels.

Beebe and Fromer analyzed the availability of marks to new applicants and found that the supply of desirable trademarks is not inexhaustible.⁵⁸ They also found that the Principal Register has become so cluttered with word marks that new applicants in many fields must overcome depletion and congestion barriers.⁵⁹ We reached the opposite conclusion in our study of color marks, finding that colors—apart from other indicia—are claimed as marks much less frequently than their expressive potential might suggest.⁶⁰ Bitton, Schuster, and Gerhardt analyzed marks prosecuted by individuals and found significant disparities in success rates correlating with race and gender.⁶¹ One of the surprising findings

⁵⁶ *Id.* at 3.

⁵⁷ See Gerhardt & McClanahan, *supra* note 32, at 622 (finding that trademark lawyers have a significantly higher likelihood of prosecuting successful trademark applications and successfully rebutting office actions and opposition than *pro se* applicants).

⁵⁸ See Barton Beebe & Jeanne Fromer, *Are We Running Out of Trademarks? An Empirical Study of Trademark Depletion and Congestion*, 131 Harv. L. Rev. 945, 1041 (2018) (finding that firms will likely always find at least some minimally communicative unregistered mark, but that increasing depletion and congestion will impose greater costs and less benefit on firms and increase consumer search costs).

⁵⁹ *Id.* at 950-51 (defining “trademark depletion” as “the process by which a decreasing number of potential trademarks remain unclaimed by any trademark owner,” and defining “trademark congestion” as “the process by which an already-claimed mark is claimed by an increasing number of different trademark owners.”).

⁶⁰ See Deborah R. Gerhardt & Jon J. Lee, *Owning Colors*, 40 Cardozo L. Rev. 2483, 2546-47 (2019) (citing support for the powerful cognitive signals that colors are capable of imparting on consumers and finding 221 registrations of color as a trademark alone out of millions registered since the U.S. Supreme Court ruled color alone could function as a trademark in 1995).

⁶¹ Miriam Marcowitz-Bitton, Deborah R. Gerhardt & William Michael Schuster, *An Empirical Study of Gender and Race in Trademark Prosecution*, 94 S. Cal. L. Rev. 1407, 1459-60 (2022); see also Emma Williams-Baron, Jessica Milli & Barbara Gault, *Innovation and Intellectual Property among Women Entrepreneurs*, at ii, 12 (Inst. Women's Pol'y Res. 2018), https://iwpr.org/wp-content/uploads/2020/10/C472_Report-Innovation-and-Entrepreneurship-9.6.18-clean.pdf (finding that male-owned businesses are 7.0% likely to hold a trademark registration and female-owned businesses are only

from this research is that although women are underrepresented in the population of individual trademark applicants, their publication and registration success rates exceed those of men.⁶²

Additional empirical trademark research focuses on data outside the registration context. Some studies show a correlation between trademarks and entrepreneurial success. Trademarks, for example, have been found to provide competitive advantages⁶³ and promote informational and economic efficiency.⁶⁴ Scholars have also shown that firm survival, performance-related metrics, and other innovation measures correlate with trademark registration.⁶⁵

Empirical studies of judicial opinions have also contributed to a better understanding of infringement and dilution litigation. In the United States, proof of trademark infringement is established by showing that consumers are likely to be confused by another's use of an identical or similar mark.⁶⁶ Each of the federal circuits employs a multi-factor test to determine the likelihood of confusion.⁶⁷ Beebe employed correlation and logistic regression analysis on over 300 judicial opinions issued from 2000 through 2004 to determine the relative impact of these factors.⁶⁸ He found that senior trademark litigants seeking to stop another's use must win in proving their mark is strong and that the junior's mark is confusingly similar. Proof of an infringer's bad faith, evidence of actual confusion, and proximity of the goods and marketing channels are also significant.⁶⁹ A more recent study by Lim also noted that similarity, actual confusion, and competitive proximity were among the most important factors to courts evaluating

6.1% likely); *Intellectual Property and Women Entrepreneurs*, Nat'l Women's Bus. Council, 2 (2012), <https://cdn.www.nwbc.gov/wp-content/uploads/2018/02/27192725/Qualitative-Analysis-Intellectual-Property-Women-Entrepreneurs-Part-1.pdf> (comparing application and grant trends by gender).

⁶² Marcowitz-Bitton et al., *supra* note 61, at 1466.

⁶³ See Richard Hall, *The Strategic Analysis of Intangible Resources*, 13 STRATEGIC MGMT. J. 135, 143 (1992) (finding that trademarks, among other intangible assets such as company reputation and employee know-how, are sources of sustainable competitive advantages).

⁶⁴ See William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J. L. & ECON. 265, 268-73 (1987) (arguing that trademark law works to promote economic efficiency through a reduction of consumer information costs and incentivizing expenditures to maintain the high quality of goods and services).

⁶⁵ See Christine Greenhalgh & Mark Longland, *Running to Stand Still?—The Value of R&D, Patents and Trade Marks in Innovating Manufacturing Firms*, 12 INT. J. ECON. BUS. 307, 310 (2005) (finding that, due to depletion and inability to stave off imitation, firms must continually renew IP assets to maintain market position).

⁶⁶ Lanham Act § 32, 15 U.S.C. § 1114.

⁶⁷ See McCarthy, *supra* note 7, § 24:30, at 24-86.

⁶⁸ Barton Beebe, *An Empirical Study of the Multifactor Tests for Trademark Infringement*, 94 Cal. L. Rev. 1581, 1584-85, 1600 (2006).

⁶⁹ *Id.* at 1607-14.

likelihood of confusion.⁷⁰ He further found that courts engage in “factor folding,” a process by which they “combine factors and analyze them together,” and “tend to start limiting the factors that they choose to consider when confronted with complex decision processes.”⁷¹

III. LESSONS FROM THE TRADEMARK CASE FILES DATASET

Although the TESS website is an excellent resource for searching individual applications and registrations, it does not work well for conducting longitudinal research and analyzing trends. To conduct our empirical study of trademark application and registration data, we relied on the USPTO’s Trademark Case Files Dataset (“TCF dataset”) released by the Office of the Chief Economist to facilitate academic research and transparency.⁷² Although the bulk trademark application data used in much of the earliest empirical research is still available, the TCF dataset is significantly more streamlined. It includes a primary table that contains one record for each trademark application along with seventy-nine variables.⁷³ This primary table is linked to thirteen additional tables through the application’s serial number, which serves as a unique identifier for each application. Given the one-to-many relationship between the primary table and several additional tables, hundreds of information points may be gleaned for each application. The USPTO periodically releases updated versions of this dataset with new information that applicants and the USPTO continuously enter into TESS.

A. Methodology

In early 2022, the USPTO released its most recent version of the TCF dataset that contained all information it maintained on trademark applications filed between 1870 and early 2021.⁷⁴ Due to data limitations, the following analysis is based on applications filed in the forty-year period between January 1, 1981, and December 31, 2020. As first noted by Barton Beebe, the number of unsuccessful

⁷⁰ Daryl Lim, *Trademark Confusion Revealed: An Empirical Analysis*, 71 Am. Univ. L. Rev. 1285, 1338-39 (2022).

⁷¹ *Id.* at 1345.

⁷² See *Research Datasets*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/ip-policy/economic-research/research-datasets> (last visited June 13, 2022) (describing the various research datasets and providing links to download them).

⁷³ See *USPTO Trademark Case Files 2020 Variable Tables*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/sites/default/files/documents/2020-tm-case-files-variable-tables.pdf>.

⁷⁴ See *Trademark Case Files Dataset*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/ip-policy/economic-research/research-datasets/trademark-case-files-dataset> (last visited June 13, 2022).

applications before 1981 is exceedingly low, suggesting that prior to that year, the USPTO may have purged unsuccessful applications.⁷⁵ Other empirical studies of trademark data have employed similar types of date limitations as well.⁷⁶ For these reasons, our analysis of trademark applications relies on forty years of trademark data beginning in 1981.

Success for any trademark applicant is not immediate, as each application can take months or even years to wind its way through the registration process. Therefore, in analyzing publication and registration success rates, we limited our inquiry to applications filed between January 1, 1981, and December 31, 2018, that had reached a final disposition of registration or abandonment. As noted above, the prosecution of a trademark application can take several years, especially if an examining attorney issues multiple office actions. ITU applications may also sit for years between publication and registration. Once the notice of allowance issues, ITU applicants are given six months to file a statement of use. But even after that initial period expires, applicants may seek five additional six-month extensions of time.⁷⁷ In order to ensure that our reported success rates were not skewed by these prosecution delays, we excluded from those calculations all applications filed during the final two years of the study (2019–2020) along with any earlier applications that were still pending.

We then determined whether any additional records should be excluded. Although the TCF dataset appears to be reliably coded and maintained, we excluded a small subset. For example, each record contains a current status code, indicating whether a mark is “live” or “dead” in the USPTO system. A record is deemed “live” if the application is pending or the registration has issued and is still active; a record will be considered “dead” if the application failed to register or if the registration issued but was later cancelled. While nearly all records fit neatly into one of the two categories above, some status codes for the “dead” category signal that the record contains invalid or incorrect data. Given that the USPTO itself flagged this set as erroneous or incomplete, we excluded 2,709 records (.03% of all applications) from our analysis.

A final set of issues arises in the examination of the data on attorneys who assisted with the filing of trademark applications. First, the attorney data fields are inconsistently populated on applications filed prior to 1983; therefore, we shortened the time frame for the analysis of attorney representation accordingly.

⁷⁵ See Barton Beebe, *Is the Trademark Office a Rubber Stamp?*, 48 Hous. L. Rev. 751, 760 (2011).

⁷⁶ See, e.g., Beebe & Fromer, *supra* note 58, at 973 n.132 (limiting empirical study to applications filed since 1985); Gerhardt & Lee, *supra* note 60, at 2521 (limiting empirical study to applications filed since 1987).

⁷⁷ See Lanham Act § 1(d), 15 U.S.C. § 1051(d).

Second, both the fact of attorney assistance and the name of the attorney are self-reported by the person who files the application. Although the field ordinarily includes the lawyer's name and in theory would be blank if the applicant is pro se, some applicants entered information such as a question mark or the word "none." We recoded these records as pro se because although the attorney field was not blank, the written text suggested the application was prosecuted without the assistance of counsel. On the flip side, major corporations with a suite of in-house counsel may file multiple applications through an experienced paralegal on behalf of the company.⁷⁸ Although these applications would be coded as pro se, the applicant in fact may be assisted by lawyers in selecting the symbol, preparing the application, or responding to office actions.⁷⁹ Third, when an applicant hires or changes counsel after the initial filing or even post registration, the new attorney's name may appear in the TESS data even if that lawyer was not originally involved. It is possible that these features of the data may result in an underestimation of attorney success rates because applications originally filed pro se may contain errors an experienced attorney would not have made. Fourth, because the USPTO does not maintain a licensing system for trademark attorneys who appear before it,⁸⁰ one cannot know for certain the number of applications a particular attorney has filed. For example, an attorney who uses a middle initial when filing some but not all applications will appear as two different individuals in the dataset, as will attorneys who change their names. Although we implemented some measures to more accurately match attorney names (e.g., removing non-alphabetic characters), we acknowledge that this method of tracking attorneys is a conservative approach that may overestimate the success rates for less experienced attorneys and underestimate the findings of higher success rates for experienced attorneys. Finally, all the applications for an attorney who files more than 100 applications will be counted as highly experienced even though that lawyer's earliest applications would have been filed without the benefit of substantial prosecution experience. Counting these earlier applications (when they did not have experience) with the rest of the experienced filings again underestimates the success of applications filed by experienced counsel.

After identifying the records within the time period of interest and scrubbing the data, 9,189,498 applications remained for our longitudinal analysis. Because this study examines the entire

⁷⁸ Gerhardt & McClanahan, *supra* note 32, at 614.

⁷⁹ *See id.* at 612-14.

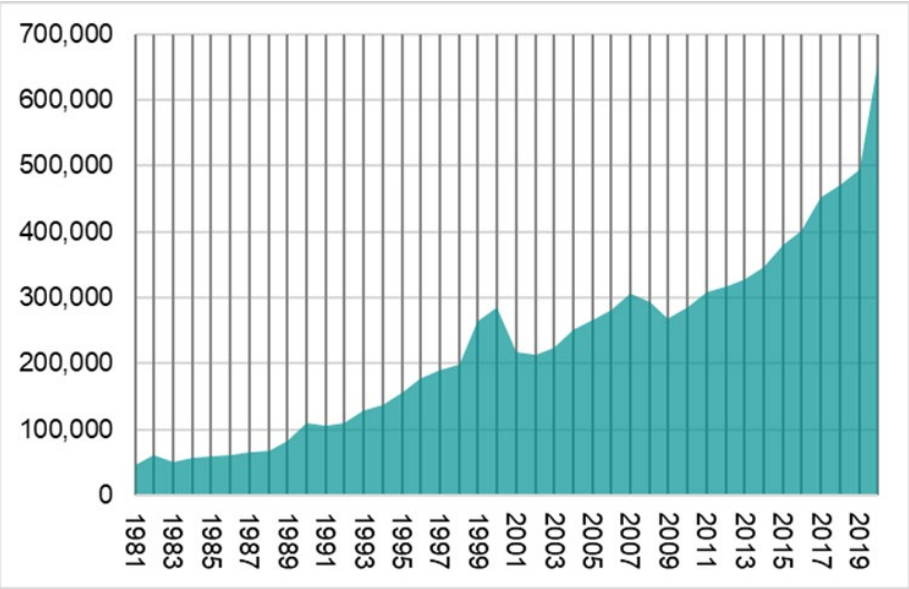
⁸⁰ Jon J. Lee, *Double Standards: An Empirical Study of Patent and Trademark Discipline*, 61 B.C. L. Rev. 1613, 1678-80 (2020) (noting deficiency and suggesting that the USPTO develop a registration system to better track trademark attorneys who practice before it).

population rather than a sample, computing statistical significance is inapposite. As there is no risk of variation between a selected sample and the population of trademark applications, we are able to describe with certainty the observations set forth below.

B. Four Decades of Trends and Dramatic Growth

As of May 2022, there were 3,784,721 live marks on the Principal Register and another 107,633 on the Supplemental Register. While these total numbers are substantial, they do not capture the growth in trademark applications and registrations over the last four decades. The number of live marks in the TESS data changes daily as new applications are filed and marks no longer in use are abandoned. To illustrate how the dataset grew over time, Figure II shows the annual number of applications filed between 1981 and 2020.

Figure II: Trademark Applications Over Time

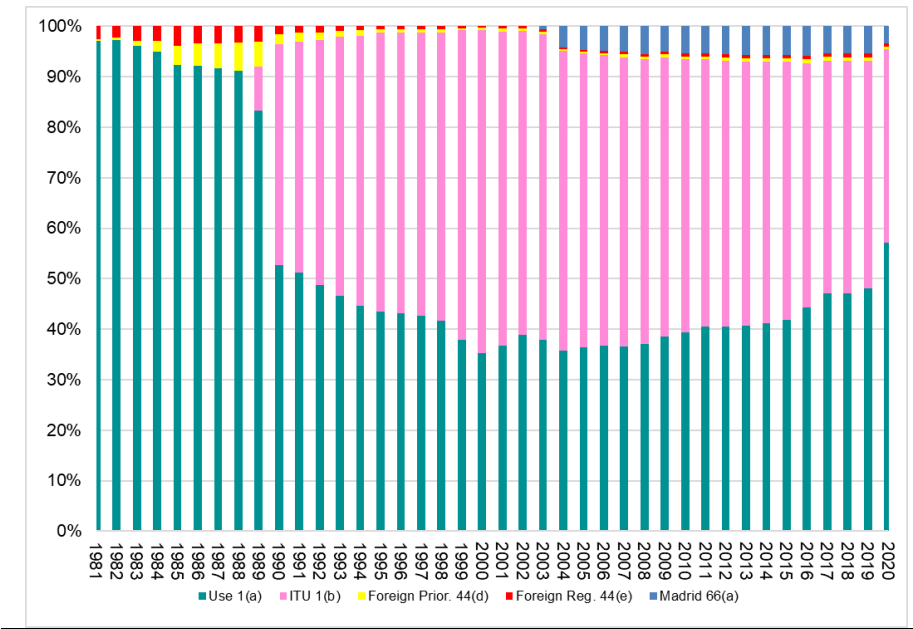


As illustrated in Figure II, trademark application rates increased by more than twelve times over the past forty years. The annual number of applications jumped from under 50,000 per year in 1981 to over 650,000 in 2020—a 1274% increase. The spike in 1989 coincides with the year when intent-to-use was first available as a filing basis. Although an ITU application cannot mature to registration until the applicant submits proof of use, the applicant can secure priority from the date the application is filed. As illustrated in Figure II, applicants quickly began to take advantage of this opportunity and stake their claim to marks that they had not yet begun using in commerce.

The dramatic increase around 2000 may be attributed to the availability of electronic filing beginning in late 1998 and the Internet bubble phenomenon.⁸¹ The most recent surge in trademark applications was fueled by a sudden rush of applications from China. Between 2013 and 2019, applications from China jumped 1527% from 4,706 to 76,566, far outpacing the 51% overall percentage increase in applications.⁸² Because the increase corresponded with a flood of fraudulent specimens and other indications that the marks may not be related to genuine use in commerce, the USPTO amended its regulations to require that all applications from entities domiciled in other countries be prosecuted by an attorney licensed to practice in the United States.⁸³ That change became effective in August 2019, and therefore, data in future years will reveal the extent to which it has an impact on filing and success rates.

Figures III.A and III.B document changes in filing basis trends. To create Figure III.A so that the categories were mutually exclusive, we limited the universe to the vast majority of applications (96%) claiming a single filing basis.

Figure III.A: Application Filing Basis Over Time



⁸¹ See Beebe, *supra* note 75, at 761 (discussing Internet bubble); Gerhardt & McClanahan, *supra* note 32, at 602-03 (noting connection with introduction of online filings).

⁸² *Trademarks and patents in China: The impact of non-market factors on filing trends and IP systems*, U.S. Pat. & Trademark Off. 5 (Jan. 2021), <https://www.uspto.gov/sites/default/files/documents/USPTO-TrademarkPatentsInChina.pdf>.

⁸³ See Requirement of U.S. Licensed Attorney for Foreign Trademark Applicants and Registrants, 84 Fed. Reg. 31,498 (July 2, 2019) (to be codified at 37 C.F.R. pts. 2, 7, & 11).

The great majority of applications filed prior to 1989 claiming a single filing basis were based on use in commerce. Once intent-to-use became an option for applicants on November 16, 1989, it quickly gained popularity. By 1993, ITU applications exceeded those filed based on use. In 2017, use-based applications once again regained the lead. The spike in applications from Chinese-domiciled entities likely contributed to this shift, as a large percentage of those applications were based on alleged use.⁸⁴

Figure III.A also displays shifting trends for applications originating outside the United States, although these trends do not fully capture the importance of those filings because applications from abroad often claim more than one basis. Foreign priority filings, in particular, are routinely filed in connection with use or intent to use since foreign priority cannot be used as a basis for registration. Of the applications that are filed with more than one basis (4% of total), 62% claim foreign priority. A closer look at these applications reveals that they are most often coupled with ITU filings; 86% of multi-basis filings claiming foreign priority include ITU as an additional basis. This finding is consistent with the hypothesis that some businesses may leverage foreign priority to secure early nationwide priority for marks they have not yet used in the United States.⁸⁵ An empirical study by Carsten Fink et al. named them “submarine trademarks” because large corporations occasionally use this strategy to secretly secure early filing dates in jurisdictions without publicly available trademark registration data.⁸⁶

In order to more fully understand the increasing importance of international filing bases, Figure III.B depicts the number of applications claiming foreign priority, foreign registration, or protection under the Madrid protocol, even if that filing basis is combined with others.

⁸⁴ See *Trademarks and patents in China: The impact of non-market factors on filing trends and IP systems*, *supra* note 82, at 4.

⁸⁵ See Carsten Fink et al., *J. Econ. & Mgmt. Strategy Working Paper No. 51, Submarine Trademarks*, 12 (2018), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_econstat_wp_51.pdf.

⁸⁶ *Id.* at 2.

Figure III.B Prevalence of International Filing Bases

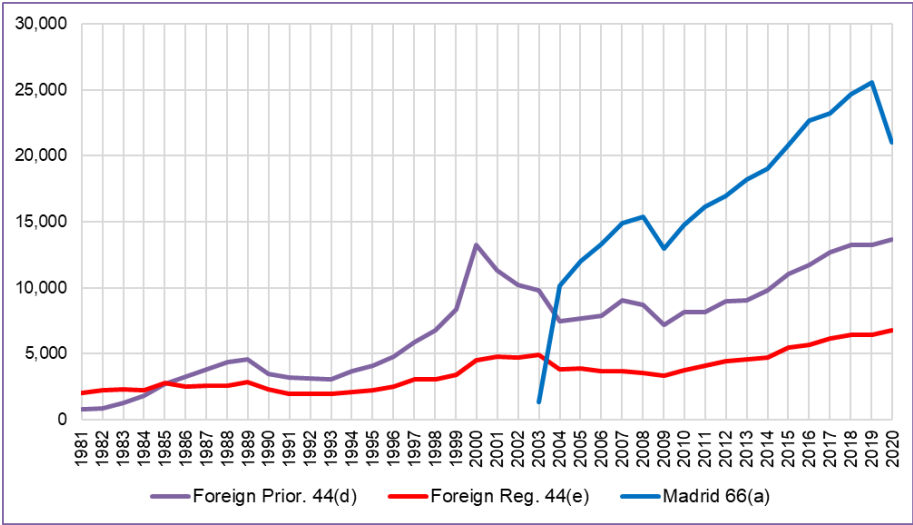


Figure III.B documents these dynamic trends. In the early 1980s, foreign registration filings were more prevalent than foreign priority filings. That trend shifted in 1985 and became more pronounced after 1995. In 2002, just before the introduction of Madrid filing basis, there were 11,317 applications that claimed foreign priority, in comparison to 4,729 that relied upon foreign registration. But soon after the introduction of the Madrid filing basis, it overtook the other foreign filing bases, and continues to dominate the landscape of foreign applications. Between 2010 and 2020, both the foreign priority and foreign registration bases showed considerable increases from a relative standpoint, even though they have been outpaced by Madrid filings.

In addition to choosing a filing basis, each trademark applicant must specifically identify the classes of goods and services it uses (or intends to use) in connection with the claimed mark. Overall, most trademark applications (60%) are claimed in connection with goods. One third (33%) are for service marks, and 7% claim use in connection with both goods and services. Figure IV illustrates some modest variation in filings within these general categories over time.

Figure IV: Applications for Goods and/or Services Over Time

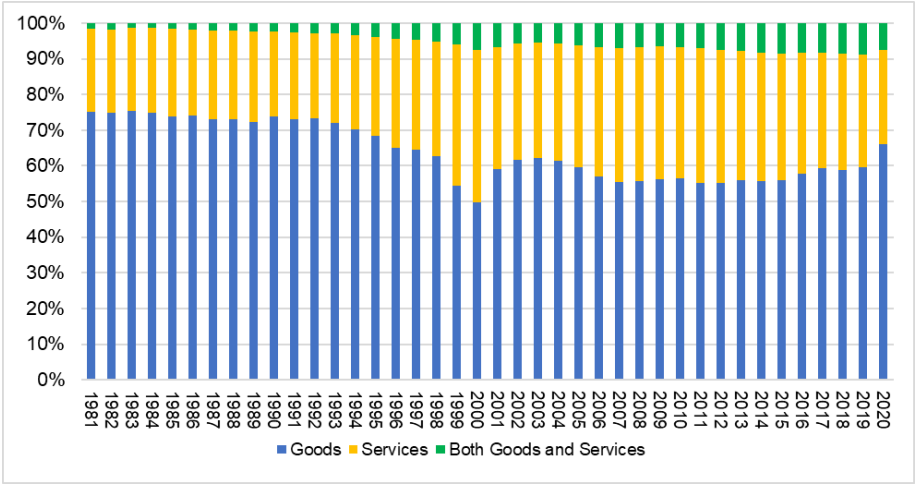
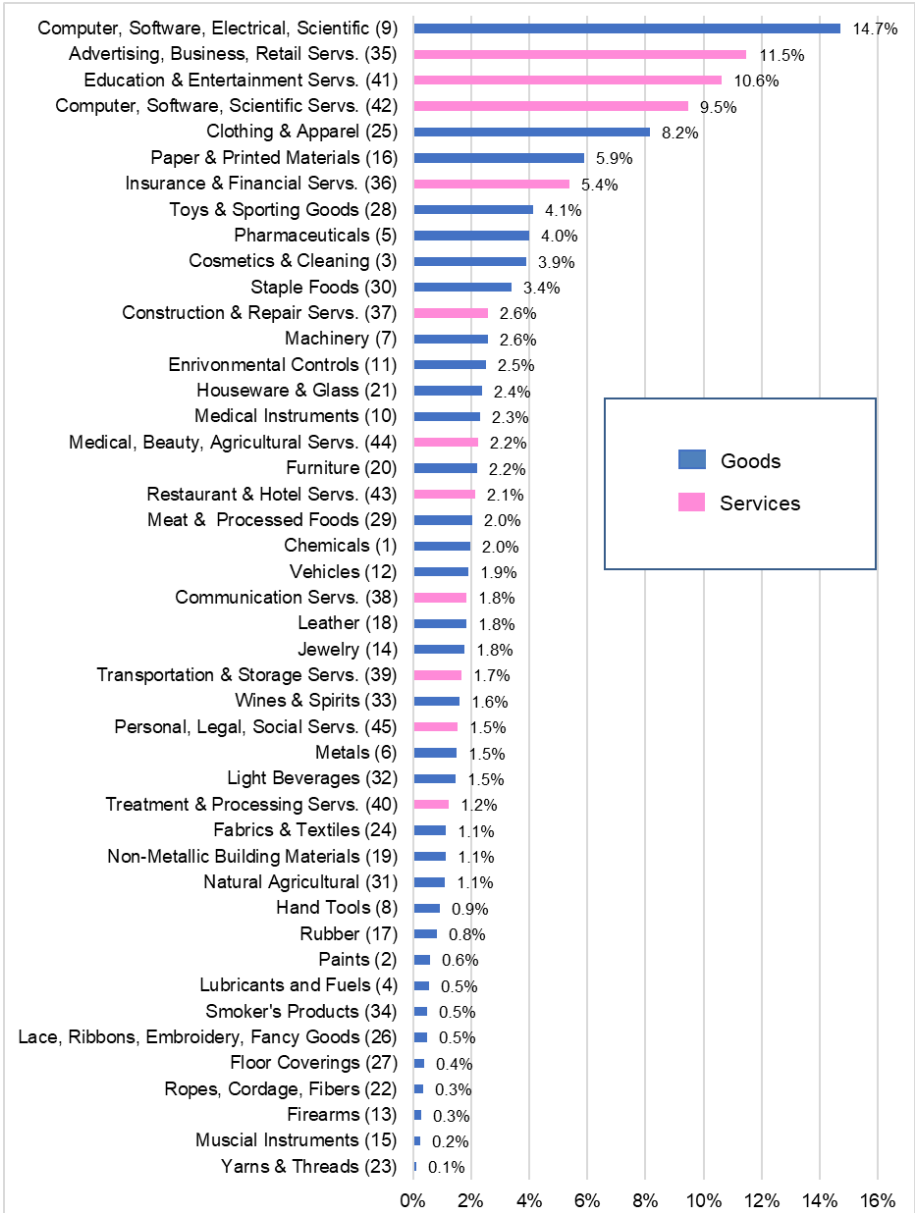


Figure IV shows that in the 1980s, goods accounted for over 75% of applications. The percentage of services (either alone or in connection with goods) began to increase significantly beginning in the 1990s. Once, in 2000, applications filed in connection with goods accounted for fewer than 50% of applications. Since then, the percentage has generally hovered between 55% and 60%. The most recent filing data from 2020 reflects the highest percentage (66%) of applications filed in connection with goods alone. This upturn may have resulted from the COVID-19 pandemic, as businesses may have delayed launching new services. Data from future years will bear out whether this finding is a temporary blip or a pivot point.

Figure V shows the percentage of marks registered in each of the international goods and service classes. Goods classes are depicted in blue, and service classes are in pink.

Figure V: Registrations by Class



Interestingly, three of the four most popular classes are for services. This finding is not surprising given that there are fewer service classes, and some classes for goods, such as yarns and threads or musical instruments, are far more specific, compared with service categories for advertising, entertainment, and education.

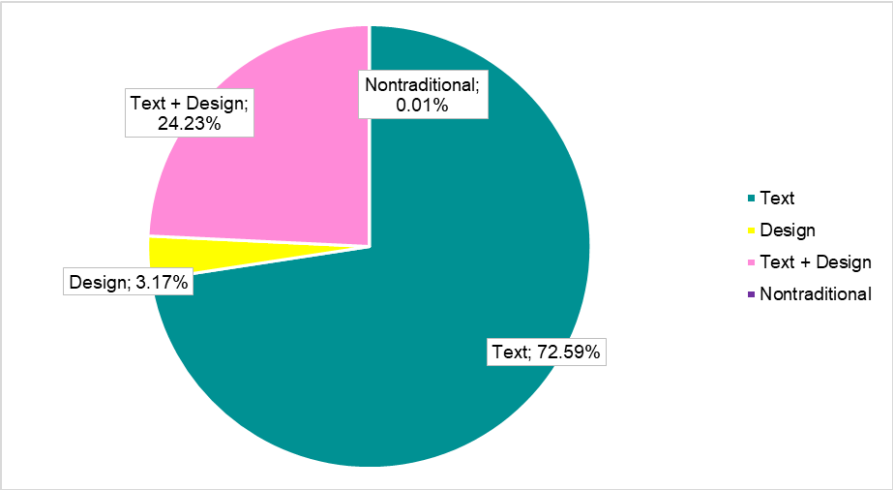
C. Trends in Text, Color, and Design

In addition to protecting use in connection with a wide variety of goods and services, U.S. trademark law generally does not exclude a symbol from serving as a mark on account of its nature. To facilitate efficient searching, the USPTO codes marks for multiple elements, including the use of words, designs, shapes, colors, and nonvisual elements, such as scent or sound. The TCF dataset sorts marks into four basic categories based on their content: (1) text only, (2) design only, (3) text and design, and (4) other marks that cannot be visually represented by a drawing (e.g., sound or scent marks). In our analysis below, we use “text” and “design” to describe marks that contain only those elements exclusive of any other, and we use the term “nontraditional” to describe the fourth nonvisual category.

Because the USPTO permits applicants to seek registration of a trademark in multiple formats, an applicant seeking strong protection may register multiple versions of their mark. For example, the Coca-Cola Company has registered the word “Coca-Cola,” a text and design mark for “Coca-Cola” written in its classic script font, and a design mark for the shape of its iconic glass bottle, all in connection with its beverage products.⁸⁷

Figure VI depicts the percentage of applications within each content category over the past forty years. At .01%, nontraditional marks constitute such a miniscule percentage that, although their slice is represented in Figure VI, it cannot be seen by the human eye.

Figure VI: Types of Marks Submitted for Registration



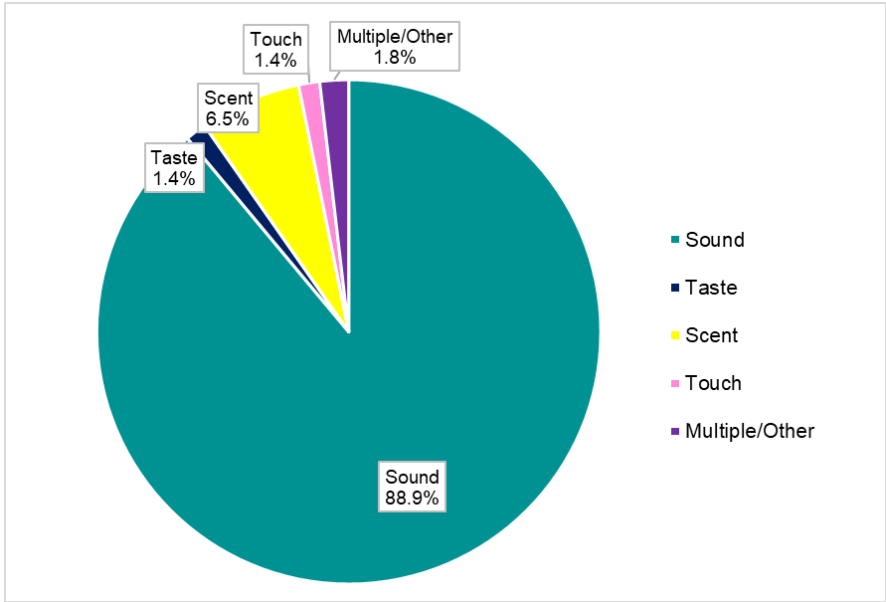
⁸⁷ See COCA-COLA, Registration No. 0238145; COCA-COLA, Registration No. 0238146; COCA-COLA, Registration No. 0696147; COCA-COLA, Registration No. 3,252,896; COCA-COLA, Registration No. 1057884.

Although trademark law permits applicants to seek registration for any symbol that identifies and distinguishes a business from its competition, the data reflects an overwhelming preference for textual marks. More than 96% of applications are filed for marks containing text; 73% of the total include no design element, and 24% seek registration of marks containing text and design. Only 3% of applications seek registration of marks that consist solely of a design, but in terms of absolute numbers that category is still substantial, containing more than 290,000 applications.

For trademarks consisting of elements other than design or text, the USPTO data does not contain codes that easily identify and distinguish them. For example, marks claiming a single color are included as one of the design codes, and the USPTO has not consistently coded them in the TCF dataset in a way that facilitates reliable analysis. Our prior empirical research, which required manual review and coding of application data, revealed that there had been only 1,237 applications for color alone filed between 1987 and 2017.⁸⁸ Yet, as described in further detail below, applications for color are more popular than the other nontraditional marks prosecuted before the USPTO.

Figure VII illustrates the distribution of the 813 nontraditional trademark applications (excluding color) filed between 1981 and 2020. We reviewed each application to verify the nature of the claimed mark.

Figure VII: Types of Nontraditional Marks



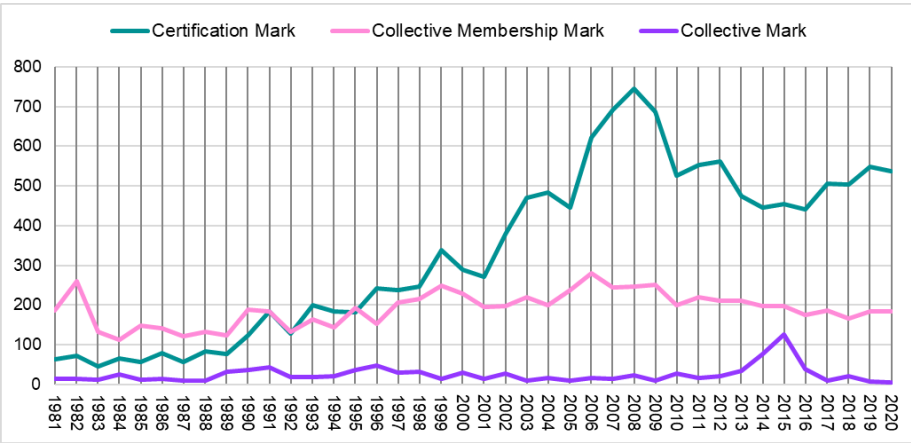
⁸⁸ Gerhardt & Lee, *supra* note 60, at 2532.

Of these nontraditional marks, the vast majority (89%) were for sound. These were followed by scent marks (7%), and then by equally small percentages (1% each) of taste and touch marks.

D. Certification and Collective Marks

Marks shared among a group with common interests constitute another subcategory of marks with interesting variation over the duration of the study, as illustrated in Figure VIII. This subcategory includes certification and collective marks. Certification marks are unusual in that they are owned by organizations that do not use the mark themselves but set standards for use by others. They may be used “to certify, regional or other origin, material, mode of manufacture, quality, accuracy, or other characteristics of such person’s goods or services or that the work or labor on the goods or services was performed by members of a union or other organization.”⁸⁹ Collective marks, which may be used by their owners, are used by more than one source, such as those belonging to “a cooperative, an association, or other collective group or organization.”⁹⁰ Some collective marks are classified as “membership marks” if they indicate “membership in a union, an association, or other organization.”⁹¹

Figure VIII: Certification and Collective Mark Applications Over Time



⁸⁹ Lanham Act § 45, 15 U.S.C. § 1127.

⁹⁰ *Id.*

⁹¹ *Id.*; 37 C.F.R. § 2.2(k).

Figure VIII shows that the filing trends in shared marks have shifted over time. Applications in the 1980s most often sought protection for collective marks. That trend changed in 1993 when applications for certification marks took the lead and began a steep upward trajectory that peaked in 2008. Although the number of applications has since levelled off, certification marks have maintained their popularity and, in the past decade, have been filed twice as often as both types of collective marks combined.

E. Application Success Rates

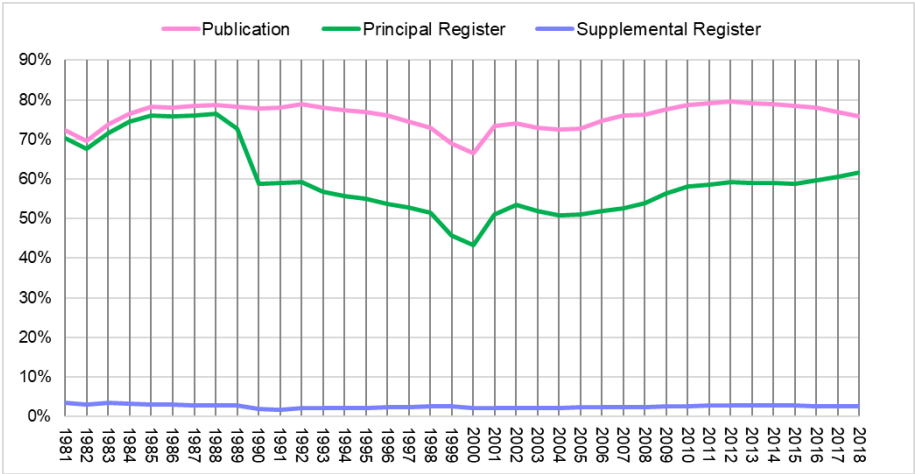
Trademark examination practices differ considerably by country. In some jurisdictions, trademark filings get scant review, and once filed, pass immediately to registration. Other jurisdictions conduct stringent review and impose procedural hurdles that may delay or hinder protection.⁹² The U.S. falls into the more stringent side of that spectrum. USPTO trademark applications are examined by specialized trademark attorneys, and many fail to survive that process. Therefore, studying the variables that correlate with success and failure provide important insights for trademark practice and policy development.

Once trademark applications are filed with the USPTO, they follow one of multiple paths. Figure I illustrates the differences in application success rates over time. Some applications will publish and be admitted to the Principal Register with little additional work on the part of the applicant. Others must overcome office actions or opposition proceedings. Still others may be placed on the Supplemental Register until they develop enough secondary meaning to reapply for inclusion on the Principal Register.

Figure IX depicts trends in three primary success rates over time for all trademark applications filed with the USPTO between 1981 and 2018.

⁹² See *Filing a Trademark Application Outside the United States*, International Trademark Association, <https://www.inta.org/fact-sheets/filing-a-trademark-application-outside-the-united-states/> (last visited June 13, 2022).

Figure IX: Application Success Rates Over Time



The top trend line represents the relatively steady publication rate, which has generally fluctuated between 70% and 79%, though it dipped to 67% in 2000. However, in most years, the rate has hovered within three percentage points of the 76% overall rate. Similarly, the bottom trend line shows that the percentage of marks placed on the Supplemental Register has held steady around 3%.

By contrast, the middle line, representing rate of admission to the Principal Register, shows more variation. Principal Registration and publication rates were nearly identical until 1989, when the registration rate dropped precipitously. Since then, it has remained around 20 percentage points lower. Although one might question whether this drop resulted from a change in USPTO practices, no evidence suggests that administrative changes have caused this effect. Therefore, scholars attribute this decline to the simultaneous introduction of intent-to-use as a filing basis.⁹³ As noted earlier, ITU applications may publish prior to the applicant’s use of the mark in commerce, but they cannot register until the applicant demonstrates use. Some applicants may make a business decision not to use the mark following publication or to abandon the application for other reasons.

To better understand the decline in principal registration rates depicted in Figure IX, we examined success rates by filing basis. The results, depicted in Figure X, are limited to applications initiated with a single basis and specify “Supplemental” registration when applicable.

⁹³ See, e.g., Beebe, *supra* note 75, at 762-63 (cataloguing the decline in registration rates and linking it to the introduction of the intent-to-use basis).

Figure X: Success Rates by Filing Basis

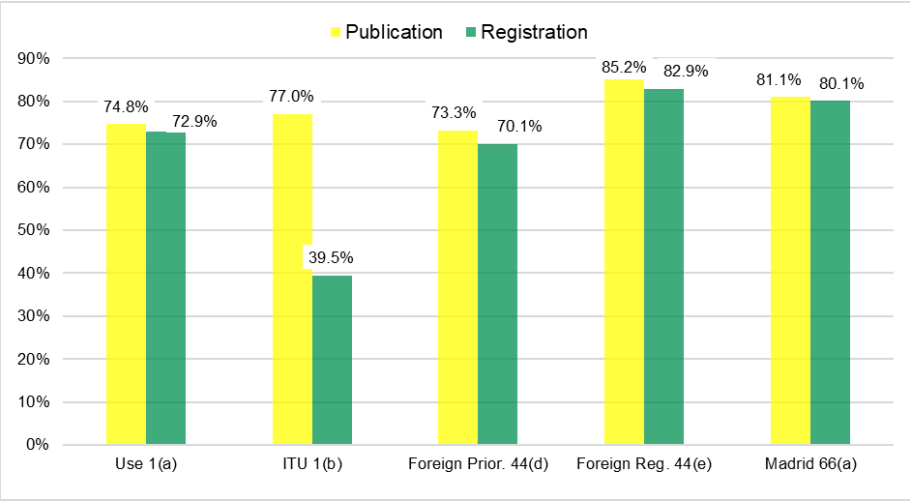
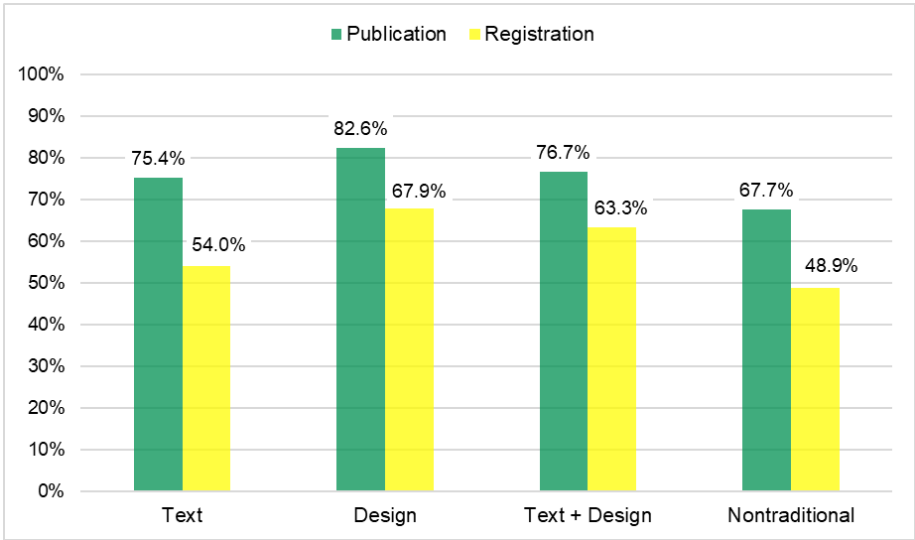


Figure X confirms that much of the difference between publication and registration rates overall is attributable to intent-to-use applications. The first pair of bars shows near parity in registration and publication rates for use-based applications. In stark contrast, the second set of bars depicts a 37.5% gap between publication and success rates for the large subset of ITU applications. The differences in rates for each of the other filing bases are between one percentage point (Madrid) and three percentage points (Section 44(d)). Applications based on Sections 1(a), 44(e), and Madrid are all complete at the time of filing so they generally register once published, unless they are opposed. Applications based on Section 44(d) are not published until they are combined with Section 44(e) or proceed on another basis. Therefore, the lower rate of registration associated with the Section 44(d) filing basis as compared with Madrid or Section 44(e) may be due to the additional hurdle of securing the foreign registration or proving use in commerce in the United States.

Figure X highlights that trademark applicants who rely on registrations secured from other countries succeed at the highest rates. Indeed, the registration rates for Madrid and foreign registration filings exceed 80%. These statistics underscore the potential advantage to businesses that obtain trademark protection in another country before filing an application with the USPTO.

Even though Figure VI showed that textual marks are the most popular in terms of application filings, that popularity does not equate to having the greatest success before the USPTO. Figure XI depicts the success rates for each of the four basic content types. Applications for marks claiming design but not text have the highest rates of publication and registration.

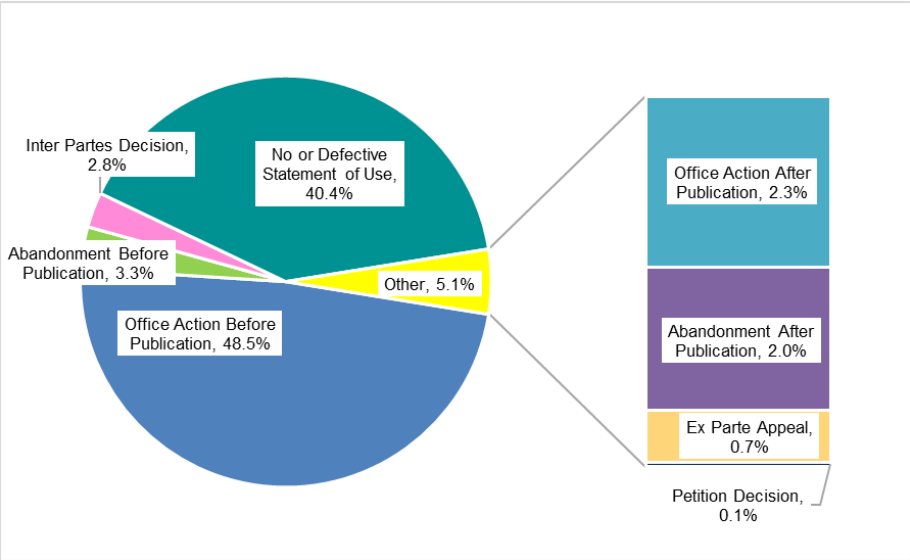
Figure XI: Success Rates by Type of Mark



With an 83% publication rate and a 68% registration rate, applications claiming only design have the highest success rates. Text marks and applications claiming text and design have similar publication rates (75% vs. 77%), though the registration rate for text is considerably lower than the rate for applications containing both text and design (54% versus 63%). Nevertheless, the registration rate for applications claiming text and design does not match or exceed those claiming only design. The reasons for this phenomenon may be fertile ground for further research. One possible explanation is that some applicants who think their textual mark may be initially unprotectable, perhaps because it is descriptive, might attempt to obtain registration for a design used in connection with the descriptive term. Another factor may be that the smaller number of design marks yields fewer likelihood of confusion obstacles. Nontraditional marks publish at a 68% rate, the lowest among the four categories. This relatively low success rate may result from a more frequent need to prove secondary meaning or other prosecution challenges unique to nontraditional marks.

To understand why so many trademark applications fail to register, we took a closer look at unsuccessful applications. Nearly every failed application has a status code that identifies its fatal stumbling block. Occasionally, an application will include a code that reflects a subsequent event (e.g., petition to revive) or that is otherwise inapposite (e.g., internal shifts in data storage). This small set of records for which the failure could not be pinpointed were excluded from Figure XII, which depicts the reasons why the bulk of failed applications met their demise.

Figure XII: Reasons for Unsuccessful Applications



Most unsuccessful trademark applications (51%) were thwarted by an office action, 49% before publication and 2% afterwards. Although pre-publication office actions may be issued for a variety of reasons, post-publication office actions for ITU applications generally result from defects in the specimen submitted after a notice of allowance. This same defect for a use-based application would result in a pre-publication office action.

There are many reasons why a trademark application may be abandoned following an office action. Some applicants may perceive the examining attorney’s objection as insurmountable. Others, especially pro se applicants, may be unsure how to respond or miss the deadline due to inattention. Future research delving into these reasons is an important area of inquiry because the data unequivocally shows that office actions are the primary reason that marks fail to register.

The next most common stumbling block is failure to file a proper statement of use (40%). These applications already succeeded in overcoming USPTO review and were published. Indeed, if a published mark fails to register, 84% of the time the progress halts from not filing a proper statement of use. Examining these applications more closely, it became clear that in virtually all cases the applicant did not submit any statement of use, perhaps because the applicant decided against using the mark in commerce. These results further confirm that introduction of the intent-to-use filing basis caused the decline in registration rates in 1989 (as seen in Figure IX), when post-publication statements of use became an additional requirement many applicants would not satisfy.

Express abandonment occurs rarely, approximately 5% of the time, with more occurring before publication (3% of total) than after (2% of total). Unfortunately, the status codes associated with express abandonment do not indicate why the applicant decided not to continue with prosecution. Some applicants may have made a business decision to abandon the mark, apart from issues related to its protectability. Alternatively, an applicant who received an office action may have filed an express abandonment rather than respond—even though not responding at all would have led to the same result. Some applicants may have filed an express abandonment to resolve threatened litigation.

The remaining reasons for unsuccessful applications involved higher-level USPTO decision-makers or other proceedings, but they individually and collectively represent a small percentage of the total. Although opposition proceedings provide an opportunity for third parties to prevent trademark registration, they only account for 3% of unsuccessful applications. Even when combined, adverse petition decisions and ex parte appeals account for less than 1% of failed applications.

F. Success Rates and the Presence of Counsel

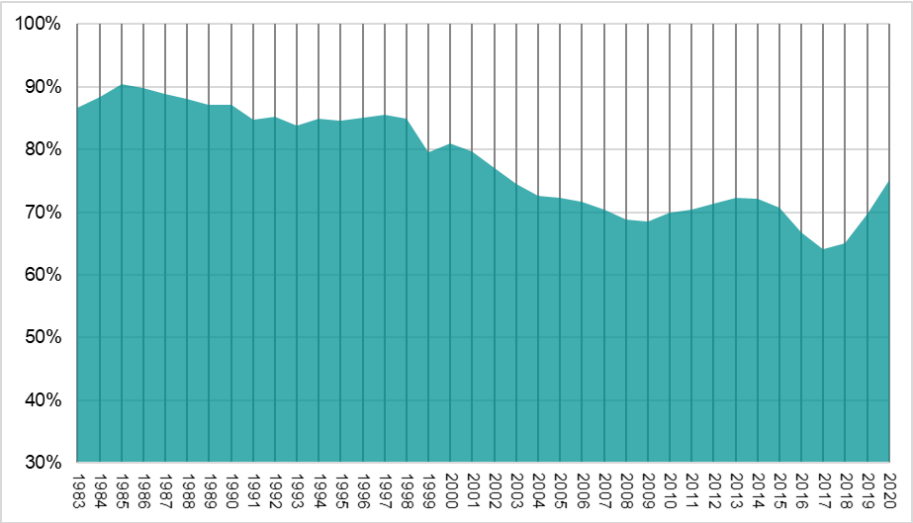
Trademark prosecution involves multiple considerations that may impact the cost to each applicant. A separate fee must be filed for each class of goods and services claimed in an application and hiring trademark counsel can bring the cost over \$1,000, even for a single class. The costs can be far higher if the applicant confronts multiple office actions or prompts an opposition or litigation by a well-funded opponent. While filing a trademark application may be less expensive than patent prosecution, the costs are not negligible, especially for small businesses or low wealth entrepreneurs. Therefore, empirical data indicating whether assistance of counsel is advantageous can help applicants decide whether to invest scarce resources in hiring legal counsel or to take a risk by filing an application pro se.

Historically, trademark applicants all had the choice of prosecuting their application without the assistance of counsel. As mentioned earlier, the USPTO now requires all foreign applicants, registrants, or parties to a proceeding to be represented by an attorney who is admitted to practice in a U.S. state. By contrast, U.S. applicants may still appear pro se.

Figure XIII depicts the annual percentages of applications filed by legal counsel. This percentage declined from over 90% in 1985 to 64% in 2017, when it rose again. After the USPTO launched its online application platform in November 1997, the percentage of applications filed by legal counsel dropped precipitously. The online fill-in-the-blank format made it easier

for pro se filers to navigate the process.⁹⁴ The requirement that foreign applicants file through a U.S.-licensed attorney took effect in August 2019 and may account for some of the increase (from 65% to 75%) between 2018 and 2020.

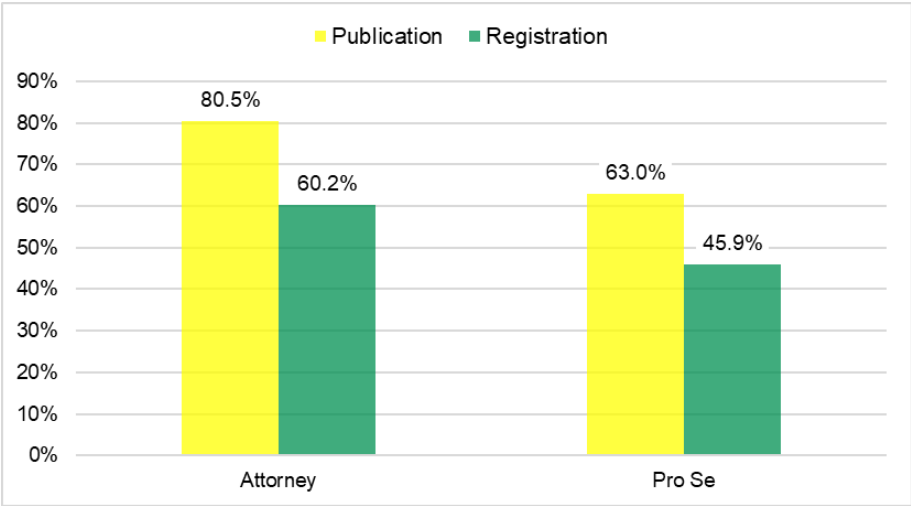
Figure XIII: Percentage of Applications Filed by Legal Counsel Over Time



Given that a substantial percentage of trademark applications are filed pro se (and even more could be if applicants chose to do so), one may question whether hiring legal counsel may contribute to successful trademark prosecution. Figure XIV demonstrates the significant difference in publication and registration rates for applications filed by attorneys and pro se. The data shows that applications filed by counsel had higher success rates.

⁹⁴ See Gerhardt & McClanahan, *supra* note 32, at 602 (discussing the circumstances that contributed to the shift).

Figure XIV: Success Rates for Applications Filed Pro Se and with Counsel



While 63% of pro se applications succeed to publication, the publication rate jumps to over 80% for those filed by legal counsel—a 28% increase. The difference in registration rates is also substantial. While 46% of pro se applicants succeed in registering their marks, the registration rate jumps to 60% for those represented by counsel—a 31% increase.

In addition to increasing their chance of success, applicants may experience additional benefits when they hire experienced trademark counsel. Trademark specialists can assist clients in selecting strong, distinctive marks to meet the Lanham Act’s requirements. They also know how to navigate the application process and overcome office actions, which, as shown in Figure XII, are the most common barriers to registration.

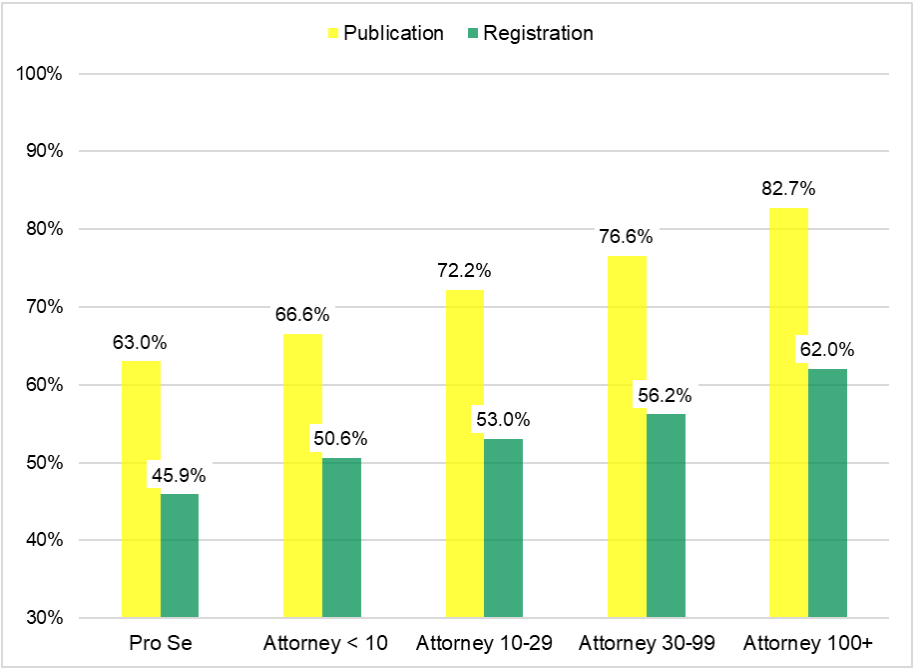
Of the trademark applications that could not overcome a final office action, 44% were filed pro se, even though only 26% of all applications from that time period were pro se. This data shows that office actions are upending a higher proportion of pro se applications than those filed by counsel. Aware that U.S.-based applicants with scarce resources may choose to navigate the selection and application process pro se, the USPTO periodically updates its online application platform to be more user friendly.⁹⁵

A deeper dive into this data shows that more experienced lawyers have even higher success rates than their less experienced

⁹⁵ See, e.g., *Trademark Basics Boot Camp*, U.S. Pat. & Trademark Off., <https://www.uspto.gov/about-us/events/trademark-basics-boot-camp> (last visited Dec. 12, 2022) (providing a series of virtual events to educate nonlawyers about trademark protection and federal registration).

peers. Figure XV depicts the publication and registration rates for pro se applicants as the baseline, and then it breaks out the success rates of applications filed by counsel by the attorney’s experience. We defined an attorney’s level of experience by the number of applications naming that attorney as counsel between 1983 and 2020.

Figure XV: Success Rates for Pro Se Applicants and Attorneys by Experience Level



The pair of bars on the far left depicts the percentage of pro se applications that succeeded first to publication, and second to registration. Fewer than two thirds of pro se applications (63%) publish, and fewer than half (46%) mature to registration. The remaining pairs show the success rates for applications filed by counsel. These success rates increase modestly to 67% and 51% for the least experienced attorneys, but they steadily increase as the experience level of the attorney increases. For attorneys who prosecuted 100 or more applications, the success rates jump to 83% for publication and 62% for registration. These success rates substantially exceed the rates for pro se applicants and less experienced attorneys. Based on these results, applicants who are seeking legal counsel to help them register a trademark may have a greater chance of success if they hire experienced counsel. Although there are limits in the quality of the attorney data, as described in

our methodology section,⁹⁶ these results likely underestimate the true impact of hiring experienced counsel.

We examined whether the results might be skewed by firms that list a particular individual for all trademark applications instead of the lawyer who actually prosecuted each application. Although that practice does occur, the data suggests it is not the norm. Furthermore, our overall results are not skewed by a few outliers at the top who use one name for all of a firm's applications. We isolated data for attorney names associated with 10,000 or more applications, and we found that these lawyers had lower publication (77%) and registration (62%) rates than the most experienced group overall. Included among these unusually frequent filers were the founder of Trademarkia and an attorney associated with the rise of applications originating from China.⁹⁷ Some high-volume firms attempt to generate business by advertising low-cost prosecution, which may result in less time, attention, and expertise spent per application.⁹⁸ Similarly, the data showed no appreciable decrease in the publication rate for the most experienced cohort when we excluded attorneys associated with 5,000 or more applications. Notwithstanding the occasional existence of this unconventional practice, we kept these attorneys in our data because to the extent attorneys in the most experienced group are always listed on behalf of their firms, their inclusion is warranted due to the team's collective experience in prosecuting applications.

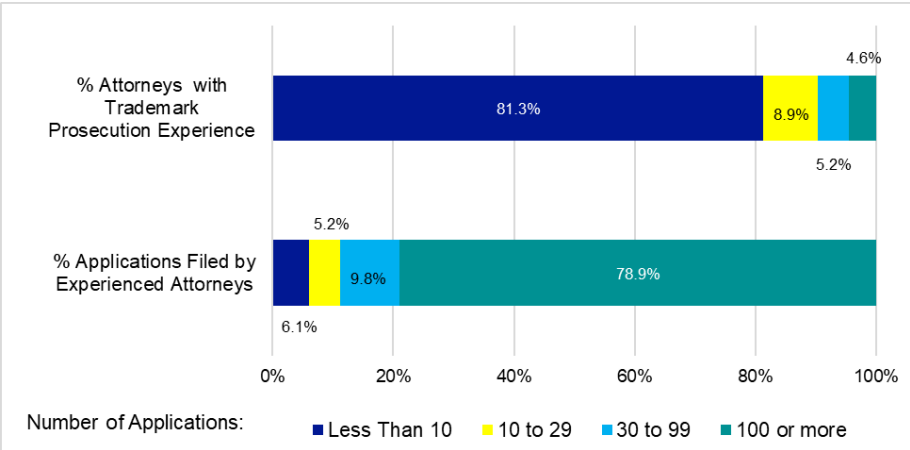
Some additional context will be helpful to fully understand the attorney experience data. Figure XVI shows the attorney experience categories broken out in two ways: first by the percentage of attorneys having various experience levels, and second, by the percentage of applications filed by attorneys at each level. Figure XVI reflects the fact that although the group of most experienced attorneys (those filing 100 or more applications) is relatively small at 5% of all lawyers who have filed trademark applications during the time period of interest, that cohort prosecutes 79% of all applications filed by counsel.

⁹⁶ See n.79-80 & accompanying text, *supra*.

⁹⁷ See Tim Lince, *USPTO suspends prolific trademark attorney Jonathan Morton for numerous breaches of conduct rules*, World Trademark Review (May 1, 2022), <https://www.worldtrademarkreview.com/article/uspto-suspends-prolific-trademark-attorney-jonathan-morton-numerous-breaches-of-conduct-rules> (discussing both prolific trademark enterprises and noting that the latter attorney had been sanctioned by the USPTO for ethics rules violations).

⁹⁸ See Tim Lince, *Revealed: how controversial low-cost online trademark platforms dominated paid Google search results*, World Trademark Review (May 27, 2021), <https://www.worldtrademarkreview.com/article/revealed-how-controversial-low-cost-online-trademark-platforms-dominate-paid-google-search-results> (discussing the methods by which companies providing low-cost trademark assistance attract customers and questioning the quality of some of the services provided).

Figure XVI: Attorney Experience Categories



Despite the popular notion that “anyone” can file a trademark application, Figure XVI shows that trademark prosecution has become a specialized field, where a relatively small percentage of experienced attorneys yield the highest success rates. The USPTO has begun to recognize the important role that trademark attorneys play, both in requiring that foreign entities have legal representation and disciplining trademark attorneys who fail to meet their ethical obligations. Recent empirical research conducted by Lee confirms that the USPTO exercises experienced disciplinary authority against trademark attorneys and patent practitioners, although it has historically sanctioned trademark attorneys less often and less severely than patent practitioners.⁹⁹

CONCLUSION

Over the past forty years, the annual number of trademark applications filed with the USPTO has increased dramatically. Despite a multitude of efforts by the USPTO to make the application process more accessible, the process still poses challenges to applicants. Every year, thousands of applications fail to publish and register. While publication and supplemental registration rates have held rather steady, principal registration rates dropped dramatically after the introduction of the intent-to-use filing basis. While use-based and ITU applications have similar publication

⁹⁹ Lee, *supra* note 80, at 1663. Since the publication of Lee’s Article and associated empirical study, the USPTO has begun disciplining trademark attorneys who have engaged in fraudulent activities. *See, e.g., USPTO sanctions scammers for fraudulently filing thousands of applications*, U.S. Pat. & Trademark Off., (Jan. 25, 2022), <https://www.uspto.gov/subscription-center/2022/uspto-sanctions-scammers-fraudulently-filing-thousands-applications>.

rates, they differ dramatically with regard to registration because many ITU applicants do not complete the application process by filing a statement of use. Overall, applicants relying on a registration from another country navigated the registration process more successfully than U.S. applications. While the foreign registration and Madrid filing bases are far less common than use and intent to use, they have higher USPTO registration rates.

Success rates also vary by mark category. Textual marks are by far the most popular, yet they are not the most successful. That distinction goes to applications claiming design but not text. Both registration and publication rates are higher for design marks than those comprising only text. Nontraditional trademarks are the rarest category, and they publish and register at the lowest rates among all categories, but those rates are not dramatically lower than marks claiming text and/or design.

Another important dynamic revealed in the data is that office actions present the most formidable barriers to federal trademark registration. Another substantial percentage of applications fail between publication and registration because no statement of use is filed.

Finally, recent data emphasizes that the presence of counsel makes a big difference. When it comes to success before the USPTO, applications filed by attorneys are more likely to lead to publication and registration than those filed pro se. Despite the USPTO's efforts to make the application process run smoothly for pro se applicants, specialized skills are often required to successfully navigate the process. The data also unequivocally shows that attorneys with higher levels of prosecution experience have the highest success rates.

While this study focused on the past forty years, this chorus of data foretells signs of change on the horizon. Given concerns about clutter and depletion, the dramatic increase in applications from those domiciled outside of the United States, and concerns about fraudulent applications, the USPTO recently has implemented new opportunities to challenge registrations and a requirement that foreign applicants retain U.S. counsel.¹⁰⁰ Future studies will reveal whether these policy changes will impact the quantity or quality of future applications as well as the integrity of marks that populate the Principal Register.

¹⁰⁰ See generally *Changes to Implement Provisions of the Trademark Modernization Act of 2020*, 86 Fed. Reg. 64,300 (Nov. 17, 2021) (to be codified at 37 C.F.R. pts. 2 & 7) (summarizing USPTO's new expungement, reexamination, and cancellation procedures related to nonuse); *Requirement of U.S. Licensed Attorney for Foreign Trademark Applicants and Registrants*, 84 Fed. Reg. 31,498 (July 2, 2019) (to be codified at 37 C.F.R. pts. 2, 7, & 11).