

The USPTO Trademark Case Files Dataset: Descriptions, Lessons, and Insights

Stuart Graham, Galen Hancock, Alan Marco, Amanda Fila Myers



United States Patent and Trademark Office
An agency of the Department of Commerce
Alexandria, VA, USA

The USPTO Trademark Case Files Dataset: Descriptions, Lessons, and Insights

January 2013

Stuart Graham, Chief Economist
Galen Hancock, economist
Alan Marco, economist
Amanda Fila Myers, economist

Abstract

This paper describes the “USPTO Trademark Case Files Dataset” (dataset) a new dataset of trademark applications and registrations derived from the U.S. Patent and Trademark Office (USPTO) main database for administering trademark case files. The USPTO is releasing these data for the first time in a form convenient for public use and academic research, consistent with the agency’s responsibility to make patent and trademark information available to the public. The dataset provides detailed information on 6.7 million trademark applications filed with or registrations issued by the USPTO between January 1870 and January 2012, including ownership, mark characteristics, classification, prosecution events, and renewal history. This paper provides a comprehensive description of the dataset, including discussions of the legal framework affecting and the administrative processes generating these data. We provide a “first look” at the information the dataset captures and present key trends in trademark applications, registrations, and renewals. We highlight data elements valuable to researchers and the general public, and discuss issues that may arise in using these data. In releasing these data, we aim to encourage new streams of research on trademarks and what they indicate about their users, the strategies for employing them, and the wider economic impacts that these data will help uncover.

The USPTO Trademark Case Files Dataset

Abstract	1
1 Introduction.....	3
2 Prior literature	4
3 General background on trademarks	5
4 Registered trademark lifecycle	9
4.1.1 Depiction of the mark	10
4.1.2 Goods and services	11
4.1.3 Basis and use in commerce.....	16
4.1.4 Examination and grounds for refusal.....	18
4.1.5 Publication and opposition	25
4.2 Maintenance, renewal, and cancellation.....	26
4.3 Assignment.....	28
5 Data sources and contents.....	29
5.1 Data coverage	31
5.2 Data files.....	32
5.2.1 Case_file.....	34
5.2.2 Event.....	49
5.2.3 Owner	55
5.2.4 Classification	58
5.2.5 Statement	61
5.2.6 Design_search.....	63
5.2.7 Prior_mark.....	64
5.2.8 Foreign priority applications	67
5.2.9 International registrations	67
5.2.10 Data file generation	68
6 Conclusion	68
7 References.....	68

1 Introduction

The USPTO is making detailed trademark administrative data available for the first time in a form convenient for public access and academic research. The release of these data is consistent with the agency's responsibility to make information about patents and trademarks available to the public.¹ Providing this research dataset to allow for study of the economics of trademarks is also an element in the USPTO economics research agenda.² Furthermore, this release is consistent with Obama administration policy championing transparency and access to government information under the "data.gov" umbrella of initiatives.³ "The USPTO Trademark Case Files Dataset," is available at: <http://www.uspto.gov/ip/officechiefecon/economicsdata.jsp>.

Scholars in economics, management, and related fields have rarely used trademark data to conduct empirical analyses. This paucity of use may be due to its inaccessibility relative to patent information, securities filing records, and other more conveniently-available data sources. Trademark data represent a new opportunity for conducting research in areas such as marketing, advertising, brand use, strategy, innovation, and new product and service introduction. It may also contain valuable information on innovative activity not well captured by traditional sources. Unlike patents, which are limited to technological innovations, trademarks cover a broader set of participants in the economy because almost every firm, regardless of size, market, or business strategy, has goodwill to protect. Accordingly, trademark data may capture innovations that are not patented, either because they are not patentable or because their inventors choose not to seek patent protection.

This paper describes a new dataset of trademark applications and registrations derived from the USPTO's main database of trademark case files. The Trademark Case Files Dataset contains detailed information on 6.7 million trademark applications filed with or registrations issued by the USPTO between January 1870 and January 2012, including prosecution history, ownership, mark text, classification, related marks, and renewal history. While the USPTO provides trademark case files to the public in electronically downloadable formats through the Data.gov website, these records consist of document images and XML files that are not well-suited to large-scale, comprehensive analysis. The USPTO Office of Chief Economist (OCE) began a process in 2011 to convert these structured files into regularized data tables to be more compatible with standard statistical software packages. Our intent in doing so is to eliminate the necessity of numerous individual researchers engaging in duplicative programming, cleaning, and converting efforts and, thereby, free up research capacity for more substantive inquiry into intellectual property, law, organizations, and innovation.

In this paper, we describe the Trademark Case Files Dataset and provide a "first look" at the abundant information it contains. We highlight some key elements in the data likely to be

¹ 35 U.S.C. § 2.

² See generally http://www.uspto.gov/news/pr/2010/10_63.jsp.

³ See generally <http://www.data.gov>.

valuable to researchers and other users. However, there are numerous potential uses for the dataset beyond what we discuss in this document. We hope to encourage a new stream of research on trademarks and what they indicate about their users, the strategies under which they are employed, and the wider economic impacts that these data are able to help uncover.

The paper is structured as follows. Section 2 surveys some past literature involving trademarks and trademark data, noting that such previous research has been limited. In Section 3, we provide a brief background on trademarks and the Federal trademark registration process. In Section 4, we describe the lifecycle of a registered trademark, highlighting the USPTO processes that generate the administrative data from which the Trademark Case Files Dataset is derived. Section 5 describes the organizational structure of the dataset and provides a first look at the data therein. In Section 6, we offer some concluding observations.

2 Prior literature

While scholars have written on trademarks and the trademark system, empirical research is limited. The extant literature mostly examines the system from a historic or legal perspective (e.g., Schechter 1927), or through economic theory (e.g., Landes and Posner 1987). The marketing literature has considered trademarks within the context of strategic brand management (e.g., Elliot and Percy, 2006) and intangible asset valuation (e.g., Wilkins, 1992). Where valuation is done, it tends to be more art than science and subject to significant subjective considerations (Smith 1996).

Empirical literature on trademarks, while limited, has recently been expanding, particularly in Europe. Sandner (2009) investigates how patent and trademark portfolios impact the market value of European firms. He observes complementarities between patents and trademarks and finds that holding each contributes incrementally to firm value. Sandner and Block (2011) estimate the effect of trademarks on firm market value, employing a methodology frequently used with patent citations, and find associations between firm value and indicators associated with trademark value, such as seniority, oppositions, and the number of goods and service classes. Employing data from the Oxford Firm Level Intellectual Property Database, Greenhalgh et al. (2011) show a positive link between trademark registration activity and firm performance in productivity, employment, wages, and growth rates in the United Kingdom. Graevenitz (2007) studies trademark oppositions, examining the reputational effects of European firms defending established brands by opposing potential imitator mark applications. He finds that a reputation for tough opposition has a strong effect on the probability of settlement and suggests that firms may benefit from such a reputation through reduced opposition costs.

There has been some empirical research on the relationship between trademarks and innovative activity, particularly related to service and high-tech sectors (Schmoch, 2003; Mendonca et al., 2004). Millot (2009) studies the link between trademark filing and innovating, observing that trademark data can identify innovation outside the fields of engineering and science, such as in marketing and service innovation. Likewise, Gotsch and Hipp (2011) find trademarks to be useful indicators of innovation in knowledge intensive services (KIS) industries based on German

survey data. Schmoch and Gauch (2009), more generally, consider the advantages and limitations of using trademarks to measure innovation in service industries. Heimonen (2012) examines the factors that affect innovation, as measured by intellectual property rights including patents, trademarks, utility models, and registered designs, in small and medium-sized firms in Finland. Using data on Portuguese firms, Ferreira and Godinho (2011) estimate an innovation function on a regional scale to distinguish the importance of local factors, including research and development, the structure of human resources, and the existence of KIS and technology companies, in the growth of innovation. They model a composite measure of innovation, using both patents and trademarks, to emphasize the diversity of intellectual capital outcomes of the innovation process.

Studies employing U.S. data are less common. Somaya and Graham (2006) find complementarities between trademark and copyright use by U.S. packaged software firms during the 1990s using both trademark litigation and registration data. Ceccagnoli, Graham, Higgins, and Lee (2010) use trademarks registered to firms as a proxy for marketing capabilities and assets complementary to firm innovation. Krasnikov, Mishra, and Orozco (2009) use data compiled from the USPTO's Trademark Electronic Search System (TESS) to measure the financial returns of firms' branding efforts. They find that the total number of brand-association trademarks available to firms increases their financial performance. Port (2008) examines U.S. trademark litigation strategies, presenting evidence indicating that litigation can be used to deter market entry. In another U.S. study, Beebe (2006) examines the consistency of how the likelihood of confusion test has been applied across different federal courts.

Despite these few examples, studies using U.S. administrative data remain scarce. To help remedy this paucity of research, the USPTO Trademark Case Files Dataset provides a large volume of relevant data to the research community for analysis. To facilitate greater use, these data are provided in a relational database in formats compatible with standard statistical software packages. Nevertheless, since these data are not commonly used in the research community, a comprehensive description of these data is desirable. This paper serves to introduce the user to these data and the institutional environment during which they are generated by users of the USPTO trademark system.

3 General background on trademarks

A trademark is a word, phrase, symbol, design, color, smell, sound, or combination thereof that identifies and distinguishes the goods and services of one party from those of others.⁴ Essentially, a trademark is anything that functions as a source identifier to consumers, indicating both origin and quality of goods and services. Thus, a trademark represents the goodwill an enterprise and its goods and services maintain with the public. Consumers rely on trademarks to reduce search costs, to distinguish among competing producers, and as guarantees of product quality.

⁴ See 15 U.S.C. § 1127.

Trademark law serves to prevent consumer confusion and thereby preserves consumer expectation as to source and quality of the goods or services they purchase. It also protects trademark owners' goodwill and investments therein from misappropriation by preventing one seller from free-riding on another seller's reputation by offering similar goods or services under a confusingly similar mark.

Under American common law, a trademark owner has the exclusive right to prevent unauthorized third parties from using the same or similar mark on goods and services where such use would likely cause confusion among consumers as to the source of the goods and services offered under the mark. Trademark common law dates back to a 1584 English court ruling in *Sandforth's Case*. The English court found a trader, selling inferior cloths with the mark of another merchant, liable for damaging the latter merchant's reputation (Stolte 1997). Since trademark infringement is essentially an act of unfair competition, no formal registration or act beyond use in commerce is required for protection. A later (or "junior") user of a mark is liable to a senior user if there is a likelihood of consumer confusion from parallel use of the same or similar mark on identical or related goods. An entity establishes trademark rights solely by using the mark on or in connection with goods and services. Registration at the state or federal level provides additional benefits but is not necessary for an entity to create and enforce common law trademark rights.⁵

The federal registration system has existed in the United States, in parallel with the common law system, since the late nineteenth century. The Federal Trade-Mark Act of 1870 provided for the first federal registration system. The Supreme Court struck down the law in 1879 because it applied to intrastate commerce, exceeding the powers granted by the patent and copyright clause of the Constitution.⁶ Congress responded by enacting the Trademark Act of 1881 based on its powers to regulate interstate commerce and commerce with foreign nations under the Commerce Clause. There was a major amendment to the Act in 1905 and occasional partial revisions thereafter. The Lanham Act of 1946 established the modern U.S. federal trademark registration system, providing for protection of trademarks used in commerce and registered with the USPTO.⁷ It created legal procedures to assist registrants in enforcing rights and first allowed for registration of service, certification, and collective marks.⁸ While amended several times since enactment, the Lanham Act remains the primary federal trademark statute in the United States. The Lanham Act establishes two registers at the USPTO: the Principal Register and the

⁵ In the United States, trademarks are comparable to copyrights in that rights arise from actual use of the mark rather than registration. This contrasts with the patent system where the right to exclude others from making, using, offering for sale, or importing an invention is conferred by the patent grant itself. Many foreign jurisdictions maintain civil law trademark systems where an entity can establish trademark rights through registration alone.

⁶ *The Trade-Mark Cases*, 100 U.S. 82 (1879).

⁷ 15 U.S.C. § 1051.

⁸ See 15 U.S.C. § 1127. We follow common practice and use "trademark" and "mark," interchangeably, for all marks. The Lanham Act uses "trademark" to refer to marks for goods, "service mark" for services, "certification mark" for certifications, and "collective mark" for collective groups.

Supplemental Register.⁹ A trademark registered on the Principal Register is entitled to all rights provided by the Lanham Act. Certain marks ineligible for registration on the Principal Register may be registered on the Supplemental Register.¹⁰ Throughout this paper, we refer to registration on the Principal Register unless otherwise indicated.

Registration on the Principal Register affords a mark owner additional, significant benefits not available under common law. A federal trademark registration provides prima facie evidence of mark ownership and exclusive right to use the mark nationwide on the goods and services listed in the registration.¹¹ It provides an evidentiary presumption of an exclusive right to prevent unauthorized third parties from using the same or similar mark in a manner likely to cause consumer confusion, mistake, or deception as to the source of the goods and services.¹² Federally registered trademarks are national in scope, regardless of actual geographic use. By contrast, common law trademark rights are limited to the geographic region in which the mark is used. Owners of federally registered trademarks may file an action concerning the mark in federal court and, under certain circumstances, recover profits, statutory damages, attorney fees, and treble damages for infringement.¹³ Registered mark owners are also afforded benefits that may deter third parties from adopting confusingly similar marks, such as use of the ® symbol with the mark. Listing in USPTO online databases also improves ease of discovery. Lastly, owners may record the registration with the U.S. Customs and Border Protection Service to block the importation of goods bearing an infringing mark.¹⁴

Trademarks can be categorized along a spectrum of distinctiveness. Where a mark falls on this spectrum determines both the eligibility for and the scope of trademark protection.¹⁵ On one end of the spectrum are generic terms which consumers understand primarily as the common name of a good or service. For example, “E-TICKET” is considered a generic term for computerized reservation and ticketing of transportation services.¹⁶ Generic terms are ineligible for trademark protection because they are incapable of distinguishing one source of goods or services from any

⁹ See 15 U.S.C. §§ 1052 and 1091.

¹⁰ See TMEP §801.02(b). The Supplemental Register is for proposed marks that are capable of functioning as a source identifier but have not yet acquired distinctiveness. Registrations on the Supplemental Register will appear in examination searches and, thereby, prevent a third party from registering a confusingly similar mark. Owners may seek a Supplemental Registration to register their mark in a foreign country requiring home-country registration. Applications for the Supplemental Register follow the same general procedure as those for the Principal Register but are not subject to opposition. Registrations on and applications for the Supplemental Register are rare in our dataset, comprising only about 2.4 percent of observations.

¹¹ See 15 U.S.C. §§ 1057(b) and 1115(a).

¹² See 15 U.S.C. §§ 1115(a) and 1125(a).

¹³ See 15 U.S.C. §§ 1121 and 1117.

¹⁴ See 15 U.S.C. § 1124.

¹⁵ See *McGregor-Doniger Inc. v. Drizzle Inc.*, 599 F.2d 1126, 1131 (2d Cir. 1979).

¹⁶ *Continental Airlines Inc. v. United Airlines Inc.*, 53 USPQ2d 1385 (TTAB 1999) (U.S. Serial No. 74606609 for “airline transportation services”).

other source and must remain available for universal use.¹⁷ On the other end of the spectrum are fanciful or arbitrary terms that are the most distinctive and generally afford the broadest scope of trademark protection.¹⁸ Fanciful marks are made up terms adopted solely to function as a mark, such as “KODAK”.¹⁹ Arbitrary marks are ordinary terms that, when used on specific goods or services, do not suggest or describe a significant ingredient, quality, or characteristic of those goods or services. For example, “APPLE” is an arbitrary term for computers.²⁰ A suggestive mark implies something about the good or service on which it is used, but requires imagination, thought, or perception for consumers to associate the mark with that good or service. “SPEEDI BAKE” was considered a suggestive mark for “FROZEN DOUGH” because it vaguely suggests a desirable characteristic of the good.²¹ Fanciful, arbitrary and suggestive terms are considered “inherently distinctive,” meaning that they are immediately eligible for trademark protection because they can distinguish the source of goods or services from those of another undertaking. In contrast, descriptive terms are not immediately capable of identifying source because they convey something about the goods or services, such as an ingredient, quality, characteristic, function, or purpose. For example, “BED & BREAKFAST REGISTRY” was found to be merely descriptive of lodging reservation services.²² Merely descriptive terms fall on the non-distinctive side of the spectrum and are not eligible for trademark protection so that they remain free for competitors to use to describe their own goods and services. However, descriptive terms used exclusively and continuously over a period of time by a single source may acquire sufficient distinctiveness in the marketplace to render them eligible for trademark protection (see Section 4.1.4.2).

The type of mark an owner selects directly affects the scope of trademark rights. Generally, inherently distinctive marks fall on the strong end of the spectrum and are afforded a broader scope of protection against use of the same or similar marks. Non-distinctive or inherently weak marks may become strong and receive a broader scope of protection if they acquire distinction among consumers through commercial success and prominent use.²³ Accordingly, trademark rights are not static and the scope of protection may change over time as a mark’s distinctiveness and strength evolve based on consumer perception as well as the mark’s use. Mark owners have

¹⁷ For more information on generic terms, see TMEP § 1209.01(c).

¹⁸ See *Abercrombie & Fitch Co. v. Hunting World, Inc.*, 537 F.2d 4, 9 (2d Cir. 1976).

¹⁹ TMEP § 1209.01(a). The dataset contains 22 live registrations across multiple goods and services classes for “KODAK”, including a standard character mark registered for “PHOTOGRAPHIC PRINTS AND ENLARGEMENTS” (U.S. Reg. No. 195218).

²⁰ *Id.* There are seven live registrations in the dataset for “APPLE”, including one standard character mark registered for “COMPUTERS AND COMPUTER PROGRAMS RECORDED ON PAPER AND TAPE” (U.S. Reg. No. 1078312).

²¹ *Id. In re George Weston, Ltd.*, 228 USPQ 57 (TTAB 1985) (U.S. Reg. No. 1383561).

²² TMEP § 1209.01(b). *In re Bed & Breakfast Registry*, 791 F.2d 157, 229 USPQ 818 (Fed. Cir. 1986) (U.S. Serial No. 73392878 for “LODGING ACCOMMODATIONS AND BREAKFAST FOR OTHERS IN PRIVATE HOMES”).

²³ See, e.g., *E. Remy & Co., S.A. v. Shaw Ross Int’l Imports, Inc.*, 756 F.2d 1525, 1533 (11th Cir. 1985).

an affirmative obligation to protect their trademark assets from misuse.²⁴ If an owner fails to proactively police use of the mark by competitors, consumers, licensees, and the public and enforce its trademark rights against violators, the strength of the mark and scope of protection will diminish.²⁵ Widespread use by unauthorized third parties may erode distinctiveness and result in trademark rights being severely weakened or lost altogether.²⁶ Notable examples of inherently distinctive terms that were once registered trademarks but became generic and fell into the public domain include “escalator”²⁷ for movable staircases and “yo-yo”²⁸ for a spinning toy on a string.²⁹

4 Registered trademark lifecycle

Because the Trademark Case Files Dataset is derived from USPTO administrative records, it is important for users to understand the lifecycle of a federally registered trademark. In general, that lifecycle begins when an owner files an application to register their mark with the USPTO. The application then flows through examination and publication for opposition. If the application satisfies legal requirements, the trademark is registered, and the registration must be maintained and renewed to remain live. The Trademark Case Files Dataset includes information recorded in USPTO administrative databases at each stage of this lifecycle. USPTO administrative databases have undergone various conversions and adaptations over the time period our dataset covers. For simplicity, we will refer only to the current administrative database, the Trademark Reporting and Application Monitoring (TRAM) system.

An owner may file an application to register a mark with the USPTO electronically or on paper. Upon arrival, the USPTO verifies that the application includes the following basic requirements to obtain a filing date: (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.³⁰

Applications meeting these requirements are entered into TRAM and proceed to examination. To obtain registration, the applicant must provide, in the original application or later, applicant’s citizenship or state of incorporation, applicant’s address, a legal basis for filing, an affidavit or

²⁴ See generally, 2 J. Thomas McCarthy, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 11:91 (4th ed. 2010) (“McCarthy”); see also 1 McCarthy § 2:15.

²⁵ See 2 McCarthy § 11:91; see also *Morningside Group Ltd. v. Morningside Capital Group, L.L.C.*, 182 F.3d 133, 139 (2d Cir. 1999).

²⁶ See generally 3 McCarthy § 17:8.

²⁷ *Haughton Elevator Co. v. Seeberger*, 85 USPQ 80 (Comm. Pat. 1950).

²⁸ *Donald F. Duncan, Inc. v. Royal Tops Mfg Co., Inc.*, 343 F.2d 655 (7th Cir. 1965).

²⁹ Neither registration is present in the dataset because both were cancelled prior to electronic recordkeeping (see Section 5.1). The dataset includes registrations for marks containing the terms “ESCALATOR” and “YO-YO” for use on goods other than those for which they have become generic (e.g. U.S. Reg. No. 2979944 for “YO-YO” on “Fireworks and sparklers”).

³⁰ 37 C.F.R. § 2.21(a).

declaration of use, a specimen of the mark in use, and an applicant signature.³¹ In this Section, we discuss registration requirements and processes in more detail and briefly treat post-registration procedures. In Section 5, we describe our dataset's structure and provide a first look at the data therein.

4.1.1 Depiction of the mark

An applicant may submit a mark depiction in the form of text, images, or a combination thereof. For each depiction, the USPTO assigns, and records in TRAM, a mark drawing code that specifies whether the mark contains standard characters, stylized text, and/or designs or cannot be depicted in a drawing. A standard character mark consists only of non-stylized text, without any design element.³² An applicant seeking to register a standard character mark does not claim protection for the characters in any particular font, stylization, size, or color. The owner of a standard character mark may change the mark's display at any time because rights reside in the wording itself and not in any particular form.³³ Thus, standard character marks afford owners greater flexibility and potentially broader protection than a stylized mark or a mark with a design element. Accordingly, trademark applications or registrations with standard character drawings are the most prevalent in our dataset, comprising 64.2 percent of observations (see Table 2, below).

By contrast, applications for logos or marks with design or stylized elements may claim protection for the design image or the stylization as well as any wording. Applicants must submit a special form drawing to register marks containing stylized characters, a design element, or designs in combination with characters. They must also supplement special form drawings with a description that specifically identifies the claimed elements of the mark, such as shapes, fonts, or colors. Applicants may claim three-dimensional design elements, such as recognizable product packaging, or "trade dress," that distinctively identify the product's source.³⁴ For example, the special form drawing in Figure 1 depicts a registered trademark for "SOFT DRINKS" that

³¹ 37 C.F.R. § 2.32.

³² A standard character drawing was formerly referred to as a typed drawing. An applicant seeking to register a mark without any claim as to the manner of display must submit a depiction meeting the requirements for standard character drawings. *See* 37 C.F.R. § 2.52(a).

³³ *See In re Viterra*, 671 F.3d 1358, 1363 (Fed. Cir. 2012); 37 C.F.R. § 2.52(a).

³⁴ Trade dress is usually defined as the "total image and overall appearance" of a product, or the totality of the elements, and "may include features such as size, shape, color or color combinations, texture, or graphics." *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 764 n.1, 23 USPQ2d 1081, 1082 n.1 (1992). The eligibility of trade dress and other non-traditional proposed marks (e.g., sound, color, and flavor) for trademark protection is determined based on two substantive issues: functionality and distinctiveness. Generally, a proposed mark must be non-functional and be inherently distinctive or have acquired distinctiveness to be a trademark and eligible for registration. For more information on trade dress registration and the functionality doctrine, including the role of utility and design patents in assessing functionality, *see* TMEP §1202.02.

“...CONSISTS OF THE DISTINCTIVELY SHAPED CONTOUR, OR CONFIRMATION, AND DESIGN OF THE BOTTLE AS SHOWN”.

Where a drawing of the mark is not possible, as with non-visual marks such as sounds or smells, an applicant is not required to submit a drawing but must provide a detailed description.³⁵ The following is a sample description for a sound trademark: “The mark consists of the sound of a childlike human giggle which represents the Pillsbury Doughboy giggle”.³⁶

Figure 1: U.S. Reg. No. 696147



The USPTO enters the text of standard character marks and any words from special form drawings in TRAM. Thus, registered marks that differ in appearance or form may have the same identifying characters entered in TRAM. This is also apparent in our dataset. For marks with design elements, the USPTO assigns, and enters into TRAM, one or more design search codes according to a numerical classification index. Examining attorneys use these codes during substantive examination to search for any previously registered marks with similar design elements or appearance. The public can also use the codes for searching marks. The index codifies design elements into a “category,” “division,” and “section.” For example, one design search code assigned to Figure 1 is 19.09.06, indicating category 19 for “Baggage, containers and bottles” and division 9 for “Bottles, jars, flasks”. Section 6 under this category and division is “Bottles, jars or flasks with ribbing or other surface relief”. The USPTO *Design Search Code Manual* provides detailed information on design search codes, including sample images and searching capabilities.³⁷ Design search codes are administrative tools used in examination only and have no legal significance. We discuss examination and searching in more detail in Section 4.1.4.

4.1.2 Goods and services

4.1.2.1 Identification

Each applicant must clearly and concisely specify the particular goods and services on or in connection with which it uses or intends to use the mark.³⁸ The applicant must identify goods and services in a manner meeting the requirements of U.S. law and USPTO requirements for specificity.³⁹ The USPTO *Acceptable Identification of Goods and Services Manual* contains a

³⁵ 37 C.F.R. § 2.52(e).

³⁶ U.S. Reg. No. 2692077. For a specimen, *see* <http://tsdr.uspto.gov/documentviewer?2692077/MRK20090309171020/Mark/1/Nov.%2010%2C%202000/rn/true#p=1>

³⁷ *See* <http://tess2.uspto.gov/tmdb/dscm/index.htm>

³⁸ 15 U.S.C. §§ 1051(a)(2) and 1051(b)(2).

³⁹ *See* TMEP § 1402.

detailed listing of acceptable goods and services identifications.⁴⁰ The USPTO will accept any of the over 37,000 active identifications in the Manual.⁴¹ These identifications can be specific (“Passenger and light truck tires”) or more general (“Tires”). Applicants may also compose their own goods and services identification as long as it satisfies specificity requirements. The USPTO generally accepts the common commercial or generic name for a product or service. Where there is no common commercial name, the applicant must describe the product and its intended use. The USPTO generally does not accept terminology that is overly broad or spans multiple goods and services classes.⁴² Specificity requirements serve to support proper classification of listed goods and services as well as to provide notice to third parties regarding the scope of an applicant’s rights in a mark.

4.1.2.2 Classification of trademark and service mark goods or services

The USPTO uses identifications to assign the appropriate classification to the goods and services listed in the application for registration. Typically, the applicant initially designates the class number(s) he deems appropriate for the identified goods and services.⁴³ If the applicant fails to designate a class or indicates an improper class, the USPTO will change the classification prior to or during examination.⁴⁴ Since September 1, 1973, the USPTO has classified goods and services according to the International Classification of Goods and Services under the Nice Agreement (the so-called “Nice Classification”). There are currently 45 classes, including 34 goods classes and 11 services classes. Classes have broad coverage. Goods class 9 “Electrical and scientific apparatus” includes instruments for scientific research in laboratories, instruments for controlling ships, protractors, and all computer programs and software. Services class 35 “Advertising and business” covers services related to advertising, business management, business administration, or office functions, which may encompass everything from retail stores and websites to compilation of mathematical or statistical data. The international classification system is periodically revised. Classification of goods or services registered in one period may not be directly comparable to a later classification.⁴⁵ Registrations remain classified according to the classification system in force at the time of registration unless the owner requests

⁴⁰ See <http://tess2.uspto.gov/netahtml/tidm.html>.

⁴¹ TMEP § 1402.04.

⁴² TMEP § 1402.01(a).

⁴³ 37 C.F.R. § 2.32(a)(7).

⁴⁴ See TMEP § 1401.03(b).

⁴⁵ The WIPO Committee of Experts of the Nice Union decides on all changes to the international classification system. The current 10th edition of the Nice Classification entered into force on January 1, 2012. Prior editions became effective as follows: 3rd edition on February 1, 1981; 4th edition on June 1, 1983; 5th edition on January 1, 1987; 6th edition on January 1, 1992; 7th edition on January 1, 1997; 8th edition on January 1, 2002; and 9th edition on January 1, 2007. For information on prior editions, see http://www.wipo.int/classifications/nice/en/nice_archives.html.

reclassification.⁴⁶ Prior to 1973, the United States used its own classification system. The U.S. class remains the primary class for many older registrations still in force.⁴⁷ The USPTO continues to maintain U.S. classification as a secondary system.⁴⁸

While an applicant may amend the goods and services listed during examination, they may not add goods and services. To expand protection of the mark for use on other products, the owner must apply for a new registration of the same mark

identifying the additional goods and services. Accordingly, there may be multiple registrations for the same mark within and across classes. For example, the oldest live registration in our dataset for “FORD” is the stylized character mark in Figure 2, issued July 20, 1909 for “AUTOMOBILES AND THEIR PARTS” in the goods class for vehicles.⁴⁹

Figure 2: U.S. Reg. No. 74530



We identified 23 additional live registrations for the same mark issued between 1917 and 1997 in 19 unique and 24 total classes.⁵⁰ Figure 3 shows all live registrations for the “FORD” mark (appearing in Figure 2) per international class by registration year. USPTO records show that the mark has four live registrations in the vehicles goods class issued between 1909 and 1990, reflecting expanded use of the mark on related goods within the same class, such as chassis, gasoline tanks, and tire covers.⁵¹

Figure 3: Registrations per class for first “FORD” mark (appearing in Figure 2)

⁴⁶ An owner requesting reclassification must comply with the current edition for all goods and services listed in the registration and pay fees for any added class(es) resulting from reclassification. 37 C.F.R. § 2.85(e)(2).

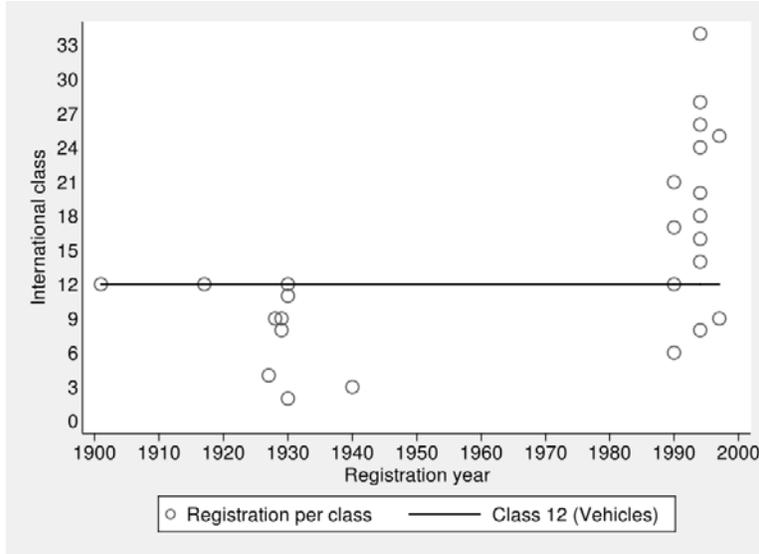
⁴⁷ For statutory purposes, the prior United States classification remains valid for applications filed on or before August 31, 1973 unless the owner requests reclassification under the international system. For registrations with a primary U.S. class, the USPTO will list one or more international classes in TRAM based on the international classes most frequently associated with that U.S. class. *See* 37 C.F.R. § 6.1.

⁴⁸ While the international class is the primary class for all applications in process on or after September 1, 1973, the USPTO continues to assign these applications one or more U.S. classes.

⁴⁹ U.S. Reg. No. 74530 with U.S. Class 19 (Vehicles) as primary classification and Nice Class 12 (Vehicles) listed for international classification.

⁵⁰ We identified live registrations for the same mark based on matching owner name (“FORD MOTOR COMPANY”, mark drawing code (“4” if filing date prior to November 2, 2003 or “5”), and identifying characters (“FORD”) and including only junior registrations that claim U.S. Reg. No. 74530 as a prior registration of related property owned by the applicant. We made our best effort to convert registrations with primary U.S. Class(es) to the Nice Class(es) listed. Alternative methods may yield different results.

⁵¹ U.S. Reg. No. 119956 issued December 25, 1917; U.S. Reg. No. 266453 issued January 21, 1930; and U.S. Reg. No. 1577668 issued January 16, 1990.



Likewise, multiple interclass registrations suggest expanded use of the mark into complementary markets or on promotional or collateral products. The number of classes covered by registrations in Figure 3 may reflect widely expanded use of the “FORD” mark over time. In 1994 alone, the mark was registered in nine different classes for use on such goods as pocket knives, watches, stationery, travel bags, novelty buttons, cloth flags, belt buckles, toy vehicles, and ashtrays.⁵² Use of a mark on collateral goods and services potentially indicates strategic behavior by owners for such purposes as creating licensing opportunities, intensifying consumer associations and confidence in a brand, or easing entry into new product marks by leveraging consumer brand associations.⁵³

Expanded coverage across classes may also reflect changes to the classes themselves. Recent revisions to the international classes largely involve transferring a specific good or service from one class to another. For example, prior to January 1, 2007, goods made of precious metals were included in Class 14 (Jewelry). For applications filed after that date, per the 9th edition of the Nice Agreement, goods made of precious metals were classified according to their function.⁵⁴ The 8th edition of the Nice Agreement restructured international services classes. Prior to January 1,

⁵² U.S. Reg. No. 1861632 in Class 8 (Hand tools); U.S. Reg. No. 1858536 in Class 14 (Jewelry); U.S. Reg. No. 1863707 in Class 16 (Paper goods & printed matter); U.S. Reg. No. 1862507 in Class 18 (Leather goods); U.S. Reg. No. 1861820 in Class 20 (Furniture & goods not otherwise classified); U.S. Reg. No. 1862563 in Class 24 (Fabrics); U.S. Reg. No. 1862593 in Class 26 (Fancy goods); U.S. Reg. No. 1836944 in Class 28 (Toys & sporting goods); and U.S. Reg. No. 1863889 in Class 34 (Smokers’ articles).

⁵³ On trademark licensing, *see, e.g.* John W. Schlicher, *Licensing Intellectual Property: Legal, Business, and Market Dynamics* (1996). On the potential benefits of brand association trademarks, *see, e.g.* Krasnikov et al. (2009).

⁵⁴ The 9th edition also transferred aquaria and related goods from Class 16 (Paper goods and printed matter) to Class 21 (Housewares and glass). *See* TMEP §1401.10.

2002, Class 42 served as a catch-all for “services that cannot be classified in other classes”. The 8th edition limited Class 42 to include only computer, scientific, and legal services and created Class 43 (Hotels and restaurants), Class 44 (Medical, beauty and agricultural), and Class 45 (Personal) to cover services previously classified in Class 42.⁵⁵

4.1.2.3 Classification of certification and collective marks

There is no separate international classification for certification and collective marks. Other countries classify these types of marks in regular international classes.⁵⁶ In general, a certification mark is used by a person other than the owner to certify that goods or services originate in a specific geographic region, meet certain quality, materials, or mode of manufacturing standards, or resulted from work performed by a member of a union or other organization.⁵⁷ The USPTO assigns Class A to certification marks for goods and Class B to certification marks for services. To register a certification mark, the applicant must provide a statement describing the characteristic, standard, or other feature of the good or service that is certified or intended to be certified by the mark.⁵⁸ For example, the certification mark “GROWN IN IDAHO” in Figure 4 is registered in Class A for “POTATOES” and states “...CERTIFIES REGIONAL ORIGIN”.⁵⁹

Figure 4: U.S. Reg. No. 631499



Collective membership marks are used by members of a cooperative, association, or other collective group to identify and distinguish membership.⁶⁰ For instance, the standard character mark “PGA PROFESSIONAL” is a collective membership mark “indicating membership in an association of golf professionals.”⁶¹ The USPTO applies Class 200 to collective membership marks. Classes A, B, and 200 are unique to the U.S. classification system and exist both before and after the shift to the international classification system.

Collective marks that membership groups use to identify their goods and services are called “collective trademarks” and “collective service marks,” respectively. The USPTO classifies these marks in the same manner as trademarks and service marks. For example, the standard character mark “REALTORS” is a collective service mark registered in U.S. Class 102 (Insurance and financial services) for “BROKERAGE OF REAL ESTATE, INDUSTRIAL BROKERAGE,

⁵⁵ The 9th edition transferred all legal services from Class 42 to Class 45. *See* TMEP § 1401.09.

⁵⁶ For example, other countries would use Class 31 for a certification mark for potatoes.

⁵⁷ For more detailed information on certification marks, *see* TMEP § 1306.06.

⁵⁸ *See* 37 C.F.R. § 2.45.

⁵⁹ U.S. Reg. No. 631499.

⁶⁰ For more detailed information on collective membership marks, *see* TMEP § 1302-5.

⁶¹ U.S. Reg. No.1740430.

FARM BROKERAGE, MORTGAGE BROKERAGE, IN APPRAISAL OF REAL ESTATE, MANAGEMENT OF REAL ESTATE....”⁶²

4.1.2.4 Fees

Classification is used only for administrative purposes and does not extend or limit rights. Registration filing, maintenance, and renewal fees are based on the number of primary classes. The current application fee is \$275 or \$325 per class for filing an electronic application, \$100 per class for filing a statement of use affidavit, and \$400 per class for filing a renewal application.⁶³ Mark owners may face additional fees for filing an amendment to a registration, filing a declaration of use or renewal application during the six-month grace period after a maintenance or renewal deadline, or correcting a deficiency in a submitted document. We do not discuss USPTO trademark fees in more detail in this document because our dataset excludes any information on fee payments.⁶⁴

4.1.3 Basis and use in commerce

To file for registration, an applicant must state a legal basis for filing for each class. The principal bases are “use in commerce” and “intent to use in commerce.” To file under the “use” basis, the owner must submit a declaration stating that, as of the filing date, the mark is used in commerce that Congress can regulate, i.e., interstate commerce or commerce between the United States and foreign nations.⁶⁵ We follow common practice and refer to use in commerce that Congress can regulate simply as “use in commerce” throughout this document.

Under the “intent to use” basis, applicants must file a declaration stating that they have a bona fide intent to use the mark in commerce.⁶⁶ Intent-to-use applications are relatively new, originating in 1989 as a result of the Trademark Law Revision Act of 1988.⁶⁷ According to Congress, the intent to use must be “in the ordinary course of trade” and not merely to reserve a right in a mark, and there must be a bona fide intent to use the mark on each of the goods or

⁶² U.S. Reg. No.515200.

⁶³ The application fee is \$325 per international class for filing an electronic application, \$275 for electronic applications with certain conditions, and \$375 for paper applications. Presently, almost all applications are filed electronically. For the current fee schedule, *see* <http://www.uspto.gov/web/offices/ac/qs/ope/fee092611.htm#tm>

⁶⁴ For more information on USPTO fees, *see* <http://www.uspto.gov/about/offices/cfo/finance/fees.jsp>

⁶⁵ The requirement for use in commerce derives from the Commerce Clause of the Constitution. For the purposes of the Lanham Act, this requirement is interpreted as use that would affect commerce that Congress can regulate. For example, a mark for restaurant services where the restaurant is located in one state but advertises across state lines and attracts out of state customers is federally registrable based on use in commerce. For additional background on this subject, *see* TMEP § 901.03.

⁶⁶ 15 U.S.C § 1051(b).

⁶⁷ Before intent-to-use applications were implemented on November 16, 1989, applicants occasionally engaged in “token” uses solely to establish a legal basis for registration.

services listed in the application.⁶⁸ While a relatively new option, intent-to-use applications currently comprise the majority of new filings to the USPTO each year. We discuss trends in application volumes by filing bases below in Section 5.2.1.3.

An applicant filing based on intended use cannot obtain registration until (a) the mark is actually used in commerce, (b) a verified statement or declaration to that effect is filed, and (c) a specimen of use is submitted. The applicant can establish use by filing an amendment to allege use before the mark is approved for publication.⁶⁹ Otherwise, if the USPTO completes examination and issues a Notice of Allowance (NOA), the applicant has six months to file a statement of use (SOU).⁷⁰ Prosecution event data in our dataset indicate that most applicants filing based on intended use opt for the latter course. Of the 2.5 million intent-to-use applications no longer pending in our dataset, about 67.3 percent were issued a NOA prior to establishing use. Only about 4.3 percent filed an accepted amendment to allege use prior to being approved for publication.⁷¹

Once issued a NOA, the applicant may request up to five six-month extensions for filing the SOU, making the effective deadline for establishing use 36 months from the NOA issuance date.⁷² If the owner fails to establish use, the application is treated as abandoned. Our prosecution event data show that most intent-to-use applications issued a NOA are disposed of (by establishing use or abandoning) without an extension. For those intent-to-use applications issued a NOA and no longer pending, about 38.3 percent received at least one extension. Only about 6.6 percent received all five extensions.⁷³ We also observe abandonment rates increasing with the number of extensions from 45.8 percent for applications with no or one extension to 71.2 percent for applications with five extensions. We discuss trends in abandonment rates for applications filed based on intended use below in Section 5.2.1.1.1.

⁶⁸ S. Rep. No. 100-515, at 25 (1988). The USPTO generally will not evaluate the good faith of an applicant in *ex parte* examination. Generally, the applicant's sworn statement is sufficient evidence of good faith unless evidence clearly indicates that the applicant does not have a bona fide intention to use the mark in commerce. *See* TMEP § 1101.

⁶⁹ 37 C.F.R. § 2.76(a). The applicant may not file an allegation of use during the period after approval of the mark for publication and before issuance of the NOA. *See* TMEP § 1104.

⁷⁰ 15 U.S.C. § 1051(d).

⁷¹ The remaining non-pending intent-to-use applications in the data were largely abandoned prior to establishing use. Some were registered, but due to limited prosecution event-data coverage, it is unclear whether the applicant established use through a use amendment prior to publication or a SOU following issuance of a NOA. *See* Section 5.1.

⁷² The first six-month extension may be requested without a showing of good cause. Additional extensions beyond that require a showing of good cause. *Id.* For each extension of time requested, the applicant must include a verified statement of continued bona fide intention to use the mark in commerce on the goods and services identified in the notice of allowance. 37 C.F.R. §§ 2.89(a)(3) and (b)(3). For additional background on this subject, *see* TMEP § 1108.

⁷³ For the 644,417 observations with an extension, the mean number of granted extensions during prosecution is 2.3.

For each goods and services class in an application, the USPTO records the dates the mark was first used anywhere in the world and first used in U.S. commerce. For marks first used within the United States, the dates may be the same because most commerce can be regulated by Congress today. Indeed, the dates differ for only 2.6 percent of all applications and registrations in the dataset and 4.5 percent of the 4.4 million class-level observations in which we observe both date fields.⁷⁴ We examine the time from the date a mark was first used to the registration date in Section 5.2.4.1.

Applicants may also use a prior application or registration in a foreign jurisdiction as the legal basis for filing a U.S. application. This requires that the applicant file a declaration of intent to use the mark in U.S. commerce. An application filed based on a foreign registration is registrable without actual use in U.S. commerce. However, the owner must file a declaration of use in the sixth year after the registration date to maintain the registration.⁷⁵ We discuss registration maintenance and renewal in more detail below in Section 4.2.

4.1.4 Examination and grounds for refusal

The USPTO assigns applications meeting administrative requirements to an examining attorney for *ex parte* examination. In general, applications are randomly assigned to examining attorneys and examined in the order in which they are received by the USPTO.⁷⁶ Currently, there are approximately 400 trademark examining attorneys at the USPTO, organized into 17 law offices. While law offices specialized in goods and services prior to November 3, 2002, since then they are merely organizational and do not specialize in particular subject matter.⁷⁷

Examining attorneys review applications to determine whether federal law permits registration. 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. Other grounds for refusal include, among other possible grounds, that the proposed mark is generic or merely descriptive, geographic, a surname, deceptive, a municipal, state or national insignia, or the name, likeness, or signature of a living person used without their consent.⁷⁸ We now turn to discussing only the most common grounds for refusal – likelihood of confusion and descriptiveness – and relevant exceptions.⁷⁹

⁷⁴ For those class-level observations with differing dates, the median lag from first use anywhere to first use in commerce is 13 months. While some date fields differ due to typographical errors (e.g. years after 2012), most do not appear to be in error.

⁷⁵ For additional information on applications claiming foreign priority, *see* TMEP § 1000.

⁷⁶ Occasionally, applications are specially assigned and examined out of the usual order for such reasons as to ensure consistent handling of co-pending applications from the same owner. *See* TMEP § 702.

⁷⁷ For a listing of trademark law offices by class specialization as of August 1, 2001, *see* <http://www.uspto.gov/web/offices/com/sol/og/2001/week40/patcond.htm>.

⁷⁸ 15 U.S.C. § 1052.

⁷⁹ For detailed information on all potential grounds for refusal, *see* TMEP § 1200.

4.1.4.1 Likelihood of confusion

During examination, attorneys search for similar federally registered marks based on the identifying characters, design search codes, or other design elements of the applicant's mark. While the USPTO records the searches made during substantive examination, this information is not available in our database.⁸⁰ Examining attorneys search existing registrations on the Principal Register and Supplemental Register and pending applications in the USPTO database only. State registrations and common law marks are not within the scope of examining attorney consideration.

When an examining attorney identifies a similar registered mark, they assess whether use of the applicant's mark on the goods and services listed in the application is likely to cause confusion in the marketplace.⁸¹ Examining attorneys apply a set of factors set out in *In re E.I. du Pont de Nemours & Co.* 476 F.2d 1357, 177 USPQ 563 (CCPA 1973), termed the *du Pont* factors, when making a likelihood-of-confusion determination. The key factors of consideration are the degree of similarity between marks in appearance, sound, connotation, or commercial impression and the degree of relatedness between the goods and services listed.⁸² In general, the more (less) similar the marks, the less (more) related the goods and services need to be for an examining attorney to find a likelihood of confusion and refuse registration of the applicant's mark.⁸³

If examining attorneys identify conflicting marks in two pending applications, they will suspend examination of the later filing rather than reject it. Once the earlier application is disposed of through registration or abandonment, the examining attorney can determine whether the mark in the later filing is registrable.⁸⁴ Suspensions occur during prosecution for about 5.5 percent of the 5.9 million observations in our dataset with prosecution event-data coverage.⁸⁵

⁸⁰ Examining attorneys' search strategies are available through the USPTO's Trademark Status and Document Retrieval (TSDR) system. All correspondence related to a particular application or registration is made available to the public through TSDR.

⁸¹ 15 U.S.C. § 1052(d).

⁸² Other *du Pont* factors examining attorneys may consider include: the likelihood that the senior user may expand its business to the goods/services in the junior user's market; the similarity of trade and marketing channels; whether consumers of the particular goods/services make purchases on impulse or after careful reflection; the variety of goods/services on which each mark is used; the number and nature of similar marks in use on similar goods/services; the nature and extent of any actual confusion; the length of time and conditions under which there has been concurrent use without evidence of actual confusion; the junior user's intent in adopting the mark (good or bad faith); and the strength or fame of the senior mark. The *du Pont* factors are taken together and considered as a whole. Attorneys may not consider all factors in each case, and any one factor may dominate in a particular case.

⁸³ For detailed information on refusal based on likelihood of confusion, see TMEP § 1207.

⁸⁴ See 37 C.F.R. § 2.83 and TMEP § 1208.

⁸⁵ An examining attorney has discretion to suspend an application "for good and sufficient cause." 37 CFR § 2.67. Common reasons for suspension include the existence of a conflicting mark in a pending application, the applicant petitioning to cancel a conflicting registration, the examining attorney awaiting

Likelihood of confusion should only bar registration when the earlier mark is owned by an entity other than applicant. An owner may register the same mark for different goods and services or a similar mark with different design elements. To help examining attorneys identify applicant-owned registrations that would otherwise block registration, applicants should claim ownership of prior registrations for the same or similar marks in the application.⁸⁶ Although applicants generally list prior registrations of similar marks, this is not mandatory.⁸⁷ Applicants do not need to list all prior registrations but typically identify the most relevant registrations based on similarity of marks and relatedness of goods and services.⁸⁸ If USPTO records do not indicate the applicant owns the prior registration, the applicant must establish ownership to overcome a refusal.⁸⁹

Under certain limited circumstances, a mark may be registrable even if there is a conflicting mark owned by an unrelated party. The Lanham Act permits registration of a mark, otherwise confusingly similar to an existing mark, if some limitation allows for concurrent use of the marks.⁹⁰ Generally, the applicant must file a concurrent use application with the USPTO and obtain a Trademark Trial and Appeal Board (TTAB) determination that a concurrent use registration is warranted.⁹¹ The TTAB is a USPTO administrative board that hears and decides on both *ex parte* appeals and *inter partes* proceedings (see Sections 4.1.4.4 and 4.1.5).⁹² In most concurrent use applications, the mark owner is requesting a geographically restricted registration and must specify the area of the United States for which protection is sought.⁹³ For example,

receipt of a copy of foreign registration for applications claiming foreign priority, and a pending *inter partes* or court proceeding relevant to the registrability of the applicant's mark. See TMEP § 716.

⁸⁶ See 37 CFR § 2.36. Some claimed prior registrations are printed on the registration certificate of the latter registration. Applicants may also claim ownership of pending applications for the same or similar marks in the application, but this is not necessary. Applicant-owned pending applications are not printed on the registration certificate.

⁸⁷ See TMEP § 812.

⁸⁸ Applicants may list a limited number of prior registrations and include "and others".

⁸⁹ If the applicant does not assert ownership of the cited registration at filing and USPTO records do not indicate the applicant owns the cited registration, the applicant must: (a) state for the record that the documents have been recorded in the Assignment Services Branch; (b) submit copies of documents evidencing the chain of title; or (c) submit a statement, supported by an affidavit or declaration under 37 C.F.R. § 2.20, that the applicant is the owner of the cited registration. TMEP § 812.01.

⁹⁰ An eligible applicant may request issuance of a registration based on rights acquired by concurrent use of its mark, either with the owner of a registration or application for or with a common-law users of a conflicting mark. 15 U.S.C. § 1052(d).

⁹¹ A concurrent use registration may be issued if the TTAB determines, in either a prior or to-be-instituted concurrent use proceeding, that the applicant is entitled to a concurrent registration or a court of competent jurisdiction renders a final determination of concurrent rights of the relevant parties to use the same or similar marks in commerce. See 37 C.F.R. § 2.99.

⁹² For more information on the TTAB, see *The Trademark Trial and Appeal Board Manual of Procedure* (TBMP) http://www.uspto.gov/trademarks/process/appeal/Preface_TBMP.jsp.

⁹³ For addition information on concurrent use application requirements, see TMEP § 1207.04(d).

registration of the standard character mark “BLUE BELL” is “RESTRICTED TO THE AREA COMPRISING THE UNITED STATES EXCEPT THE STATES OF OREGON, WASHINGTON, IDAHO, ALASKA AND MONTANA”.⁹⁴ Concurrent use applications and registrations are extremely rare. There are only 1,369 observations subject to concurrent use in our dataset (see Table 2, below).

4.1.4.2 Descriptive terms and acquired distinctiveness

To be eligible for registration on the Principal Register, a mark must indicate the source of the goods and services of the owner. Generally, examining attorneys will refuse registration of descriptive terms because they are not inherently capable of identifying the source of the goods or services and, therefore, are not eligible for trademark protection.⁹⁵ However, descriptive matter may become capable of distinguishing the goods and services of one enterprise from those of another over time through exclusive and continuous use by the owner. An applicant may register a descriptive term as a mark or part of a mark if he can demonstrate that it has acquired distinctiveness or “secondary meaning” among consumers as a source identifier for the goods or services.⁹⁶ For example, “SOFTSOAP” is descriptive of liquid soap, but the owner has successfully shown acquired distinctiveness to register the term as a trademark.⁹⁷ Applicants may establish acquired distinctiveness by submitting affidavits from the trade or public, advertising expenditures, or other appropriate evidence showing the duration, extent, and nature of the mark’s use.⁹⁸ Exclusive commercial use of the mark for five years or ownership of a prior registration may be sufficient to establish acquired distinctiveness.⁹⁹ Only about 2.3 percent of observations in our dataset have established acquired distinctiveness in full or in part (see Table 2, below).

4.1.4.3 Disclaimers

Examining attorneys may refuse registration if a mark contains an element that is not registrable and appears to grant the owner rights in that element. In such cases, an applicant may disclaim rights to the unregistrable component(s) of a mark at filing or through amendment during examination.¹⁰⁰ The purpose of a disclaimer is to permit registration of a mark that is registrable as a whole but contains some element that would not be registrable by itself, without creating a

⁹⁴ U.S. Reg. No. 972517 issued November 6, 1973; *Concurrent Use Proceeding No. 852 with Sunshine Biscuit, Inc.*

⁹⁵ 15 U.S.C. § 1052(e)(1).

⁹⁶ 15 U.S.C. § 1052(f). *See Ralston Purina Co. v. Thomas J. Lipton, Inc.*, 341 F. Supp. 129, 133, 173 USPQ 820, 823 (S.D.N.Y. 1972) (To establish secondary meaning, it must be shown that the primary significance of the term in the minds of the consuming public is not the product but the producer.)

⁹⁷ *In re Minnetonka Inc.*, 3 U.S.P.Q.2d 1711, 1713 (TTAB 1987); TMEP § 1212.10 (U.S. Reg. No. 1457886 and U.S. Reg. No. 2098824).

⁹⁸ *See* 37 C.F.R. § 2.41(a) and TMEP § 1212.

⁹⁹ *See* 37 C.F.R. § 2.41(b) and TMEP § 1212.

¹⁰⁰ 15 U.S.C. § 1056.

false impression of the extent of the registrant's rights to that element.¹⁰¹ Unregistrable components of an otherwise registrable mark include the generic term for the goods or services or matter that does not indicate source, is merely descriptive, or is primarily geographically descriptive.¹⁰² For example, the USPTO required a disclaimer of the term "ROUGE" in the standard character mark "GALA ROUGE" because it is descriptive of the goods, "Alcoholic beverages, namely, wines".¹⁰³ We observe some disclaimer to registration filed in about 19.6 percent of the applications and registrations in our dataset.

4.1.4.4 Office Actions

An examining attorney must perform a complete examination of an application to determine whether the applicant's mark is eligible for registration. A complete examination includes a search for conflicting marks in the USPTO database and an examination of the written application, any preliminary amendments, the drawing, and any specimen(s) or foreign registration(s).¹⁰⁴ If, after the initial examination, the examining attorney finds that the mark meets statutory registration criteria, he will approve the application for publication. Otherwise, he will issue an office action to the applicant explaining the grounds for refusal and, where appropriate and/or possible, options for responding to the refusal.¹⁰⁵ For example, the examining attorney may require the applicant to amend the goods and services identification to be more specific¹⁰⁶ or to disclaim an otherwise unregistrable component of the mark.¹⁰⁷ Office actions can take various forms, including an examiner amendment, a priority action, an examiner amendment combined with a prior action, or a non-final or final action consisting of a letter explaining the bases for refusal(s) or requirement(s).¹⁰⁸

¹⁰¹ TMEP § 1213. *See Sprague Electric Co. v. Erie Resistor Corp.*, 101 USPQ 486, 486-87 (Comm'r Pats. 1954) (As used in trade mark registrations, a disclaimer of a component of a composite mark amounts merely to a statement that, in so far as that particular registration is concerned, no rights are being asserted in the disclaimed component standing alone, but rights are asserted in the composite; and the particular registration represents only such rights as flow from the use of the composite mark.)

¹⁰² TMEP § 1213.03(a).

¹⁰³ *In re Brown-Forman Corp.*, 81 USPQ2d 1284 (TTAB 2006) (U.S. Reg. No. 3233488).

¹⁰⁴ A complete examination also includes determining whether all required fees have been paid. *See* TMEP § 704.01.

¹⁰⁵ 37 C.F.R. § 2.61(a).

¹⁰⁶ The applicant may amend the application to clarify or limit, but not to broaden, the identification of the goods and services. 37 C.F.R. § 2.71(a).

¹⁰⁷ 15 U.S.C. § 1056.

¹⁰⁸ The USPTO encourages the use of examiner's amendments and priority actions whenever appropriate to expedite examination. An examining attorney may issue an examiner's amendment when the required amendment does not require applicant verification, e.g., to amend the goods/services identification, enter a disclaimer, add the state of incorporation, or amend from the Principal to the Supplemental Register. Examiner amendments requiring prior applicant approval include changes to classification and corrections of obvious typographical error(s) in the goods/services identification or mark description. They may not be used to amend dates of use and are generally not used when there are statutory refusals. *See* TMEP § 707.

We observe that, for most of the 5.9 million observations in our dataset with prosecution event-data coverage, at least one office action is issued during examination. Non-final actions are the most common. We identify at least one non-final action for about 60.8 percent observations with prosecution event-data coverage.¹⁰⁹ Only about 24.0 percent were issued an examiner amendment.¹¹⁰ Priority actions issued alone or in combination with an examiner amendment are rare, occurring in only 1.5 percent of observations.¹¹¹

In response to an office action, the applicant may attempt to convince the examining attorney that the refusal is in error or amend the application to overcome the refusal. The examining attorney will reexamine the application based on any applicant response.¹¹² At this point, most applications are amended and approved for publication. Of the 3.4 million non-pending applications issued a non-final action, about 56.3 percent were approved for publication without receiving a final refusal.

The examining attorney will issue a final refusal after all requirements or refusals have been raised and the applicant has had an opportunity to respond.¹¹³ We observe a final refusal issued for about 8.3 percent of observations with prosecution event-data coverage.¹¹⁴ After a final refusal, the applicant may still amend the application to comply with any requirement. Otherwise, the applicant may request that the examining attorney reconsider the refusal, appeal it, or both.¹¹⁵

A priority action is issued following an interview or email communication in which the examining attorney and applicant discuss what actions the applicant must take to render the application eligible for publication or registration. A priority action is generally used when the action requires applicant verification. *See* TMEP § 708.

¹⁰⁹ For these 3,576,311 applications and registrations, the median number of non-final actions recorded during prosecution is 1.

¹¹⁰ About 12.5 percent of all observations with prosecution event-data coverage were issued both an examiner amendment and a non-final action. For the 1,410,865 applications and registrations issued an examiner amendment, the median number of such events recorded during prosecution is 1.

¹¹¹ Priority actions issued alone or in combination with an examiner amendment are observable in the prosecution data starting with applications filed in the late 1990s. For the 46,205 applications and registrations with a priority action observable, the median number of such actions recorded during prosecution is 2. For the 43,697 applications and registrations with a priority action/examiner amendment observable, the median number of such actions recorded during prosecution is 2.

¹¹² 37 C.F.R. § 2.63(a). An applicant may respond to any requirement or refusal raised during reexamination that the examining attorney does not state as final. *See* TMEP § 713. After reexamination, the applicant may respond by filing a timely petition to the Director for relief from a formal requirement under certain circumstances. *See* 37 C.F.R. § 2.63(b). Substantive issues, such as refusals, may be appealed to the TTAB.

¹¹³ 37 C.F.R. § 2.64. *See* TMEP § 714.

¹¹⁴ For the 487,901 applications and registrations with a final refusal observable, the median number of such actions recorded during prosecution is 1. Note that, due largely to varying data coverage, final refusals are observable in an application's prosecution history without a proceeding office action. Coverage improves for more recent applications. *See* Section 5.1.

¹¹⁵ 37 C.F.R. § 2.64(a) and (b). *See* TMEP § 715.03 regarding reconsideration after final action.

Most applications with a final refusal in our data were published without appeal or abandoned by the applicant. Of those applications issued a final refusal and no longer pending in our dataset, about 48.2 percent were approved for publication without appeal and 36.0 percent were abandoned by the applicant.

An applicant may appeal any final refusal to the TTAB within six months of the date the action was issued and upon payment of prescribed fees.¹¹⁶ Appeals are rare in our dataset. We observe an *ex parte* appeal instituted for only about 0.8 percent of observations with prosecution event-data coverage.¹¹⁷ Even if an appeal is instituted, the TTAB does not always render a decision. Most observations in our data with an *ex parte* appeal instituted are dismissed or the application is returned to the examining attorney's jurisdiction.¹¹⁸ The data indicate that a final refusal was reversed for about 19.0 percent of observations in which an appeal was decided on the merits.¹¹⁹

The applicant has a six-month statutory period to respond to an office action.¹²⁰ If the applicant fails to respond or provides an incomplete response within the statutory period, the application is deemed abandoned.¹²¹ An applicant may also expressly abandon an application through written request.¹²² We discuss abandonment trends in our data in Section 5.2.1.1.1 and the entire prosecution event flow in Section 5.2.2.

In general, our dataset does not contain data on grounds for refusal. While the prosecution event data indicates when an examining attorney issues an office action, the grounds for refusal are not captured. Information on the grounds for refusal for individual applications can be found in the electronic file history of the application available on Trademark Status and Document Retrieval (TSDR) system (see Section 5.2).

¹¹⁶ 15 U.S.C. § 1070; 37 C.F.R. § 2.141. For more information on *Ex Parte* Appeals, see TMEP § 1501 and TBMP § 1202.

¹¹⁷ This includes 3,228 applications still pending as of the data file generation date.

¹¹⁸ An appeal may be dismissed because, among other reasons, the applicant files an amendment that overcomes the refusal or complies with the requirement, which permits the examiner to withdraw the final refusal. See TMEP § 1501. The TTAB may, in response to an examining attorney's request, on its own initiative, or upon an applicant's request, suspend the appeal and remand the application to the examining attorney's jurisdiction. See TMEP § 1504.02.

¹¹⁹ Figure includes only those observations with an appeal instituted and a reversal or affirmation event observed in the prosecution event data.

¹²⁰ 15 U.S.C. § 1062(b).

¹²¹ 37 C.F.R. § 2.65(a). An examining attorney has discretion to give the applicant additional time to perfect a response under certain circumstances. Applicants may also file a petition with the USPTO to revive abandoned applications if failure to timely respond was unintentional. See TMEP § 718.

¹²² 37 C.F.R. § 2.68.

4.1.5 Publication and opposition

If the examining operation determines the mark appears registrable on the basis of use or intended use in commerce, the USPTO will publish the mark for opposition.¹²³ The opposition period is the first opportunity for a third party to directly oppose or object to the prospective registration.¹²⁴

During this thirty-day period after publication, a third party may file a notice of opposition to the mark's registration with the TTAB stating the grounds for opposition.¹²⁵ All factors considered during examination are potential grounds for opposition. When an opposition is filed, the owner of the opposed application has thirty days to file an answer with the TTAB. Thereafter, an *inter partes* opposition proceeding is held before the TTAB. An *inter partes* proceeding is similar to a civil litigation in Federal court, however, it is primarily conducted in writing, and TTAB's action is generally based on the written record.¹²⁶ If the applicant fails to timely file an answer, the application is treated as abandoned. Parties may resolve the opposition through a separate settlement agreement.¹²⁷

If no opposition is filed or the applicant successfully overcomes an opposition, the mark proceeds to registration. The vast majority of published applications proceed directly to registration without any opposition. We observe an opposition proceeding instituted for only 2.8 percent of 4.0 million published applications with prosecution event-data coverage. For those applications no longer pending, the data indicate that the opposition was sustained in about 44.8 percent of observations in which an opposition was instituted.¹²⁸

Sections 4.1.4 and 4.1.5 detail the prosecution process for applications filing for registration on the basis of use and intended use in commerce. The process differs for applications filed on the bases of foreign registration, foreign application, or international registration. Such applications

¹²³ 15 U.S.C. § 1062. Marks are published in the USPTO *Trademark Official Gazette*. See http://www.uspto.gov/news/og/trademark_og/index.jsp

¹²⁴ The "letter of protest" provides an earlier informal opportunity for third parties to bring to the USPTO's attention evidence bearing on the registrability of a mark. It does not allow third parties to directly participate in the examination process. See TMEP § 1715. We observe an accepted letter of protest in the prosecution event data for only 4,544 applications.

¹²⁵ 15 U.S.C § 1063(a). Time for filing an opposition may be extended for an additional 30 days upon written request from a third-party prior to expiration of the initial 30-day period. See TMEP § 1503.04 and TBMP § 200. We observe an extension of time to oppose received for 168,392 applications.

¹²⁶ TBMP § 102.03

¹²⁷ For more detailed information on settlement agreements in *inter partes* proceedings before the TTAB, see TBMP § 605.

¹²⁸ Figure includes only those observations with an opposition instituted and an opposition sustained or dismissed event observed in the prosecution event data. Dismissed events include oppositions that were settled without a final decision on the merits.

comprise only about 5.9 percent of our dataset. For the sake of brevity, we do not discuss the prosecution process for these types of applications in this document.¹²⁹

4.2 Maintenance, renewal, and cancellation

Prior to November 16, 1989, registrations were issued or renewed for a twenty-year term and permitted to retain the twenty-year term until the first renewal event after 1989. Thereafter, registrations were issued or renewed for a ten-year term.¹³⁰

In the sixth year after registration, to maintain the registration and avoid cancellation, the owner must file an acceptable affidavit or declaration of continued use (§8 affidavit) or excusable nonuse with the USPTO.¹³¹ When the registrant files the required documents and pays the prescribed fees, the registration is maintained through a ten-year term from the date of registration.¹³² Since November 16, 1989, at each successive ten-year period after registration, the registrant is again required to file a §8 affidavit.¹³³ If the six-year or ten-year §8 affidavit is not filed within the time periods set by statute,¹³⁴ or if the §8 affidavit is timely filed but unacceptable because it does not meet the statutory requirements, the registration is “cancelled.”¹³⁵

Since November 16, 1989, registrations may be renewed at the end of each successive ten-year period following the date of registration by filing a renewal application (§ 9 renewal application) and paying the prescribed fees.¹³⁶ If the renewal application is not filed within the time periods set

¹²⁹ For useful diagrams depicting timelines for such applications, *see* http://www.uspto.gov/trademarks/process/tm_timeline.jsp.

¹³⁰ *See* 15 U.S.C. § 1058(a) (“Each registration shall remain in force for 10 years . . .”) and 15 U.S.C. § 1059(a) (“[E]ach registration may be renewed for periods of 10 years at the end of each successive 10-year period following the date of registration . . .”).

¹³¹ 15 U.S.C. §§ 1058(a)(1) and (a)(3). This requirement applies to registrations issued under §1 and §44 of the Lanham Act or under the Trademark Acts of 1881 and 1905 for which the owner has claimed the benefits of the Lanham Act under §12(c). *See* TMEP § 1604.01. With any §8 affidavit filing, the owner must provide specimen(s) depicting use of the mark for the listed goods and services. If the §8 affidavit does not cover all goods and services, it must specify those for which the mark is no longer in use to be deleted from the registration. To claim excusable nonuse for particular goods or services, the affidavit or declaration must indicate when use stopped and is expected to resume and show that nonuse is due to special circumstances. *See* 37 CFR § 2.161.

¹³² 15 U.S.C. § 1058(a).

¹³³ 15 U.S.C. §§ 1058(a)(2).

¹³⁴ For the sixth-year and each ten-year deadline, there is a six-month grace period during which registrants may file a §8 affidavit for an additional fee. 15 U.S.C. § 1058(a)(3). The current fee for filing a §8 affidavit during the grace period is \$100 per class.

¹³⁵ 15 U.S.C. § 1058(a); 37 C.F.R. § 2.160.

¹³⁶ 15 U.S.C. § 1059. Section 9 does not apply to Extensions of Protection of International Registrations to the United States. Renewals of international registrations must be made at the International Bureau of the World Intellectual Property Organization, in accordance with Article 7 of the Madrid Protocol. 37 C.F.R. § 7.41(a).

by statute,¹³⁷ or if it is timely filed but unacceptable because it does not meet the statutory requirements, the registration “expires” as of the end of its term.¹³⁸

Because the deadline for filing a §9 renewal application coincides with the deadline for filing the ten-year §8 affidavit—both are due at the end of each successive ten-year period following the date of registration—registrants generally file a combined §8 declaration of use and/or excusable nonuse and a §9 application for renewal. The registration can be maintained and renewed at consecutive ten-year periods indefinitely, so long as the mark remains in use in commerce for the listed goods and services and the statutory requirements are met.

Failure to maintain and/or renew a subset of classes in a multiple class registration or a subset of goods or services within a class is treated as a partial cancellation. A registration may also be cancelled due to voluntary surrender by the registrant¹³⁹, by court order¹⁴⁰, or action by the USPTO Director following a cancellation proceeding.¹⁴¹

A cancellation proceeding is a post-registration *inter partes* proceeding where a third party petitions the TTAB to cancel an existing registration it believes is damaging to the third party’s mark(s). The petitioner may file on any grounds considered during examination as well as some additional grounds, such as dilution. We observe a cancellation proceeding instituted for only about 1.1 percent of the 3.4 million registrations with prosecution event-data coverage. For those registrations with proceedings no longer pending, the data indicate that a cancellation was granted in about 44.9 percent of observations in which a cancellation proceeding was instituted.¹⁴²

A registrant may apply for incontestability of a registration to limit the grounds on which a third party may challenge it.¹⁴³ A registration can become incontestable if the owner files an affidavit (§15 affidavit) stating that the mark has been exclusively and continuously used for five years and no litigation regarding the mark is pending or has been adversely concluded. About 25.3 percent of registrations in our dataset reflect a §15 affidavit acknowledged by the USPTO (see Table 2, below), though note that not all registrations are eligible for such a filing.¹⁴⁴

¹³⁷ There is a six-month grace period during which registrants may file a §9 renewal application for an additional fee. 15 U.S.C. § 1059(a). The current fee for filing a §9 application during the grace period is \$100 per class.

¹³⁸ 37 C.F.R. §§ 2.182-2.186.

¹³⁹ 15 U.S.C. § 1057(d).

¹⁴⁰ 15 U.S.C. § 1119.

¹⁴¹ 15 U.S.C. §§ 1068 and 1092.

¹⁴² Figure includes only those observations with a cancellation proceeding instituted and a cancellation granted or dismissed event observed in the prosecution event data. Dismissed events include oppositions that were settled without a final decision on the merits.

¹⁴³ 15 U.S.C. § 1065. *See* TMEP § 1605.

¹⁴⁴ Among others, marks registered on the Supplemental Register are not eligible for the benefits of §15, *see* TMEP § 1605.01.

4.3 Assignment

An owner may transfer trademark rights to another party through an assignment. Generally, an assignment involves the complete or partial transfer of the right, title, and interest in a registered mark or mark for which an application is pending. In the United States, a trademark must be assigned with the corresponding goodwill it symbolizes.¹⁴⁵ The rationale for this requirement is that the mark itself has no *per se* value apart from value and name recognition associated with its use in commerce.¹⁴⁶ Requiring the transfer of corresponding goodwill is meant to ensure that the assignee provides the goods or services at the same quality and nature as the assignor and protect the public from potential deception.¹⁴⁷ Similarly, use in commerce is a prerequisite for assigning pending applications. An intent-to-use application generally cannot be assigned prior to establishing use.¹⁴⁸

There is no legal requirement for parties to record an assignment with the USPTO. However, an assignee must record the assignment to make legal claims or take action on an application or registration at the USPTO. This includes claiming ownership of prior registrations when applying to register a similar mark and filing a §8 affidavit to maintain or §9 renewal application to renew a registration.¹⁴⁹ Recordation itself is a ministerial act and not a determination of the document's validity or effect on title. The USPTO will determine the effect of a recorded document only when the assignee attempts to take action on the application or registration.¹⁵⁰

When an assignment is filed with the USPTO, it is recorded with the USPTO Assignment Recordation Branch in an assignment database maintained separate from TRAM. Prior to November 2, 2003, recording a document in the assignment database did not automatically change the ownership record in TRAM. Since only the mark's owner of record in TRAM can take action on an application or registration, the assignee had to separately notify USPTO

¹⁴⁵ This requirement arises from common law (*see, e.g., Mr. Donut of America, Inc. v. Mr. Donut, Inc.*, 418 F.2d 838 (9th Cir. 1969).) and subsequent codification in statute (15 U.S.C. § 1060(a)(1). *See* 3-10 GILSON ON TRADEMARKS §10.02

¹⁴⁶ *See, e.g., United Drug Co. v. Rectanus Co.*, 248 U.S. 90 (1918). Interpretation of this rule has evolved over time. The traditional interpretation required full transfer of business ownership including tangible assets to constitute a valid trademark assignment (*see, e.g., MacMahan Pharmacal Co. v. Denver Chem. Mfg. Co.*, 113 F. 468 (8th Cir. 1901).) The courts have since relaxed the rule, first accepting the transfer of only business assets necessary to produce the same goods (*see, e.g., Mulhens & Kropff, Inc. v. Ferd. Muelhens, Inc.*, 43 F.2d 937 (2d Cir. 1930)) and later allowing for transfer without tangible assets so long as the assignee's products were similar in kind (*see, e.g., Hy-Cross Hatchery, Inc. v. Osborne*, 303 F.2d 947 (C.C.P.A. 1962)). The law currently requires a transfer of goodwill without any transfer of tangible assets. *See generally* Irene Calboli, *Trademark Assignment "With Goodwill": A Concept Whose Time Has Gone*, 57 FLORIDA L. REV. 771 (2005).

¹⁴⁷ *See* McCarthy, § 18:3.

¹⁴⁸ *See* 15 U.S.C. § 1060(a)(1) and TMEP § 501.01(a).

¹⁴⁹ *See* 15 U.S.C. § 1060(a)(4).

¹⁵⁰ The courts have authority over contested ownership claims. 37 C.F.R. § 3.54; TMEP § 503.01(c).

Trademark Operations to update TRAM.¹⁵¹ In general, as of November 2, 2003, the USPTO will automatically update owner records in TRAM when the filer properly indicates an assignment of the entire interest and goodwill, merger, or name change when filing with the Assignment Recordation Branch.¹⁵² We observe at least one automatic update of assignment of ownership for 5.2 percent of observations with prosecution event-data coverage.¹⁵³ We discuss how the nature of conveyance in an assignment is captured in our data below in Section 5.2.3.3.

While the separate assignment database may include owners not captured by TRAM, for registrations that are ultimately renewed, the assignee will eventually appear in the owner log of TRAM. In addition, because assignees are not required to record assignments, even the assignments database may not fully capture ownership.

5 Data sources and contents

The Trademark Case Files Dataset is derived from the USPTO main database for administering trademark application, registration, maintenance, and renewal. The USPTO releases this information to the public in daily-updated XML files.¹⁵⁴ The original audience for the daily files was comprised of commercial database companies that used the compressed XML files to create proprietary trademark search tools.

The daily-updated XML files, as released, are structured hierarchically. There is a root XML element, which contains case file-specific information for each mark application or registration, such as the application *filing date* and *serial number*. There are then multiple nested child elements for each case file, such as the log of owners or prosecution events. We converted these hierarchically-structured files into non-nested, rectangular data files in comma-separated values (CSV) and Stata dataset (DTA) formats to be more compatible with statistical software used by researchers. We fully replicated the data contained in the XML files, making no attempt to correct entry, miscoding or typographical errors. Such errors will be apparent to users of the dataset, notably in fields containing dates.

¹⁵¹ 37 C.F.R. § 3.85.

¹⁵² In general, the ownership record in TRAM is automatically updated regardless of whether the assignment records show a clear chain of title transferring ownership to the last recorded owner. TRAM is not updated automatically if: a) the execution date conflicts with a previously recorded document; b) the assignee files multiple assignments with the same execution date on the same day; or c) recordation occurs during specific blackout periods in prosecution when ownership of pending applications cannot be updated. See TMEP § 504.01. Automatic updating also may not occur if the system reaches a maximum number of recordations for the particular application or registration.

¹⁵³ For these 270,338 registrations and 37,165 applications, the median number of automatic update of assignment of ownership events in prosecution history is 1.

¹⁵⁴ For more information on USPTO electronic data products, see <http://www.uspto.gov/products/catalog/index.jsp>. For USPTO trademark data products, see <http://www.uspto.gov/products/catalog/trademarks.jsp>.

Figure 5: Trademark Case Files Dataset organizational structure

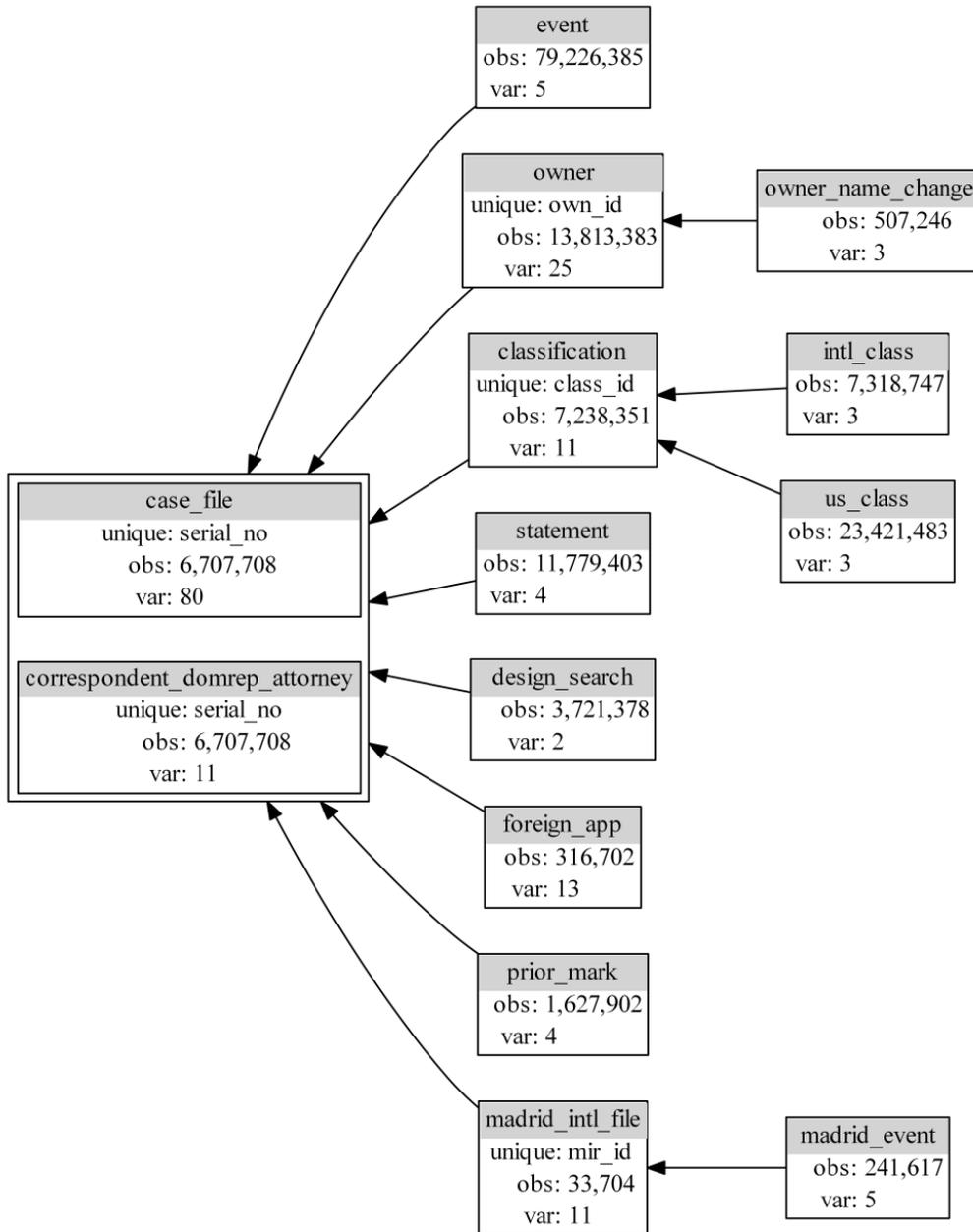


Figure 5 displays the organizational structure of the database. There is one primary data file, we refer to as **case_file**, which contains a single observation for each mark registration or application in the database. The **case_file** data file comprises the most current record of each registration or application as of the XML file generation date. The application *serial number* uniquely identifies each application or registration in **case_file**, and we use *serial number* as the primary matching

key to other files in the dataset.¹⁵⁵ Users should use *serial number* to link observations in **case_file** to the secondary data files.

There are eight secondary data files containing information from the nested child elements of the XML files. These files may include multiple observations per *serial number*. For example, the **event** data file contains an observation for each event recorded during prosecution of each *serial number*, including office actions as well as post-registration maintenance and renewal events (see 5.2.2).

Finally, there are tertiary data files for the **owner**, **classification**, and **madrid_intl_file** secondary data files. These tertiary data files contained nested child elements of the relevant secondary data file. We generated sequential identifiers to facilitate linking between secondary and tertiary data files. For example, we generated a unique *owner identification number* for each observation in the **owner** data file. Users should use the *serial number* and *owner identification number* to link observations in **owner** to the **owner_name_change** data file. The sequential identifiers are present in the data solely to enable users to link these files and have no other significance.

5.1 Data coverage

The Trademark Case Files Dataset contains data on 6,707,708 mark registrations and applications with filing dates from January 1, 1870¹⁵⁶ to January 6, 2012 and registration dates from October 25, 1870 to January 10, 2012. The dataset does not encompass all registrations ever issued. The USPTO issued many registrations prior to implementing electronic recordkeeping, and converted records for such registrations to electronic form only upon their renewal. Thus, the dataset includes only registrations that remained live as of the file generation date in force or were cancelled or expired after electronic recordation began. Registrations that were cancelled or expired prior to electronic recordation are not included in the data. Likewise, the dataset excludes older applications that were never registered. Data coverage is limited for older registrations and applications. A field regularly populated for applications filed in later years (such as 2005) will not necessarily be populated for applications filed in early years (such as 1975). Accordingly, we investigated and were able to identify four eras in which data coverage differs systematically (see Table 1):

- (1) For registrations issued before 1962, there is little data coverage. The data files containing goods and services **classification**, prosecution **event** history, and **owner** records are only

¹⁵⁵ All observations in data have an eight-digit *serial number* comprised of a two-digit series code and six additional numbers assigned by order of filing within the series code. Generally, the series codes correspond to significant changes to the federal registration system. For example, the USPTO began assigning a new series preceded by “73” for applications filed on September 4, 1973, the first day of mail receipt after adoption of Nice Classification on September 1, 1973. See TMEP § 401.02

¹⁵⁶ While there are several records having filing dates that appear to pre-date January 1, 1870, other evidence in the records, and legal realities, show that these dates are typographical errors.

populated for about 16.0 percent of *serial numbers* with *registration dates* prior to 1962 (Column 1).

- (2) For registrations issued between 1962 and 1977 (i.e. at hazard of being renewed or cancelled/expired between 1982 and 1997), data coverage improves considerably. **Classification** and **owner** data are populated for 72.4 percent of *serial numbers* with *registration dates* during this time period (Column 2).
- (3) The third era includes *serial numbers* with *registration dates* after 1977 and *filing dates* prior to 1982. While the data are much more complete for these observations, applications filed prior to 1982 that are not registered, but abandoned, are largely absent from the dataset. Registrations comprise the vast majority of observations (Column 3).
- (4) The fourth era includes all *serial numbers* with *filing dates* from 1982 through 2012. Applications that are not registered, but abandoned, are fully observable in this fourth era. It is the largest, comprising nearly 80 percent of *serial numbers* in the dataset, and has the most complete data coverage (Column 4).

Table 1: Data coverage eras by registration/filing year

	(1)	(2)	(3)	(4)	(5)
	Registered before 1962	Registered 1962-1977	Registered after 1977 & filed before 1982 ¹	Filed 1982-2012	Total ²
case_file observations	639,957	356,547	201,733	5,291,476	6,707,708
application entry/exit observable ³	n/a	n/a	Limited	Yes	
Percent of observations with data coverage:					
mark type case_file indicators ⁴	0.160	0.634	0.923	1.000	0.867
legal basis case_file indicators ⁴	0.158	0.634	0.919	0.997	0.865
classification	0.160	0.724	0.925	1.000	0.872
owner	0.157	0.724	0.921	1.000	0.872
event	0.160	0.818	0.898	1.000	0.877
statement	0.160	0.643	0.924	1.000	0.868

Note: Observations with no registration date but a populated filing date are included in eras based on filing date

1) Observations registered after 1997 but not otherwise included in column 4

2) Total includes 217,995 observations not in eras because neither filing date nor registration date populated

3) Abandoned applications observable

4) At least one non-zero indicator observable

5.2 Data files

Below, we discuss the individual data files and the associated variables. Because variables are numerous, we discuss only a subset that appears most relevant for research purposes. In addition, we include tables in Appendix I that list all variables in each data file. For those requiring more primary information, it is important to note two valuable reference tools for users of the dataset. First, the *USPTO Trademark Applications Documentation* (TAD) (2005) is the principal data

Table 2: Summary statistics for case_file indicators

	(1) count	(2) mean
Mark registration	4,007,943	0.598
Live registration	1,763,364	0.263
Cancelled registration ¹	1,361,966	0.203
Expired registration ²	257,336	0.038
Mark application	2,699,765	0.402
Abandoned application	2,077,882	0.310
Pending application	417,749	0.062
Indifferent/dead-backfile status ³	829,411	0.124
Supplemental register	158,671	0.024
Trademark ⁴	3,988,072	0.595
Service mark ⁴	2,102,587	0.313
Certification mark ⁴	9,581	0.001
Collective membership mark ⁴	7,456	0.001
Collective trademark ⁴	590	0.000
Collective service mark ⁴	426	0.000
Mark includes text	5,657,406	0.843
Standard character drawing	4,306,822	0.642
Use basis at filing ⁵	2,837,358	0.423
Intent to use basis at filing ⁵	2,782,273	0.415
Foreign app/reg basis at filing ⁵	285,681	0.043
International registration basis at filing ⁵	107,183	0.016
Intent to use amend to use	981,368	0.146
Foreign application priority claimed	176,987	0.026
International registration	107,040	0.016
Incontestability acknowledged	1,015,222	0.151
Acquired distinctiveness ⁶	155,099	0.023
Republication	19,165	0.003
Opposition proceeding pending	10,538	0.002
Cancellation proceeding pending	3,555	0.001
Subject to concurrent use	1,369	0.000
Observations	6,707,708	

1) Includes 83 observations with registration number but abandoned status assumed inactive.

2) Includes 222 registrations in expired status but with regulation cancellation code populated.

3) Observations with efb status code of 618, 622, 626, 632, 716, or 970 (see Section 5.2.1.1). This includes 625,277 registrations omitted from active, expired and cancelled registration counts and 204,134 applications omitted from abandoned and pending application counts.

4) Mark types are not mutually exclusive

5) Legal bases at filing are not mutually exclusive

6) Includes in full and in part

documentation for the original XML files.¹⁵⁷ The TAD contains detailed information on each variable and definitions for all codes, and indeed we cite relevant sections of the TAD in the discussions of each data file below. Second, a searchable database of trademark case files exists called TSDR.¹⁵⁸ This source is useful for viewing data on individual applications or registrations in a readable format and can aid in understanding how the USPTO intended for particular fields to be interpreted. It also contains valuable information not available in our dataset, including all documents issued by the examining attorney to the applicant, mark depictions and specimens of use.

5.2.1 Case_file

The **case_file** data file contains basic information for each mark registration or application in the dataset, including *mark type*, *identifying character text*, *legal basis for filing*, *current status* and *filing*, *publication*, *registration* and *renewal dates*. For those researchers familiar with the patent data, the data in **case_file** are analogous to the bibliographic or “front page” data for patents. Table 2 presents summary statistics for the indicator variables in **case_file** that we discuss in more detail below.

Each observation in **case_file** has a unique *serial number*. Only registrations have a seven-digit *registration number*.¹⁵⁹ **Case_file** contains some record for about 4.0 million registrations and 2.7 million applications abandoned or still pending as of the file generation date. About 44.0 percent of registrations in the dataset remained live as of January 2012. Figure 6 shows the distribution of live registrations in the dataset by registration year. Since registrations can be renewed indefinitely, the dataset includes some long-standing marks. The oldest live registration was issued in 1884 for a “SAMSON” logo.¹⁶⁰ As evident in Figure 6, more recently issued registrations make up the vast majority of live registrations, largely because registrations issued within the last six years have yet to face cancellation for failure to file a §8 affidavit. Accordingly, any sample of live marks necessarily includes many registrations that will be cancelled in the next six years.

¹⁵⁷ <http://www.uspto.gov/products/tmdailyapp-documentation.pdf>

¹⁵⁸ <http://tsdr.uspto.gov/>

¹⁵⁹ Pending or abandoned applications will have “000000” in the *registration number* field. A populated *registration date* does not necessarily indicate a registration. There are 784 observations in **case_file** with a *registration date* but no *registration number*. The vast majority of these observations involve applications scheduled to register within weeks of the data upload date and the *registration date* was assigned in advance.

¹⁶⁰ U.S. Reg. No. 11210 for “CORDS, LINES, AND ROPE.”

Figure 6: Live registrations in case_file by registration year

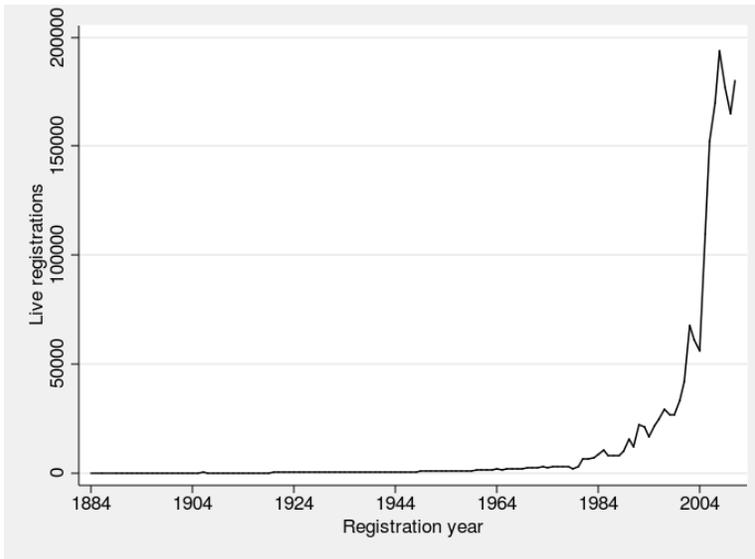
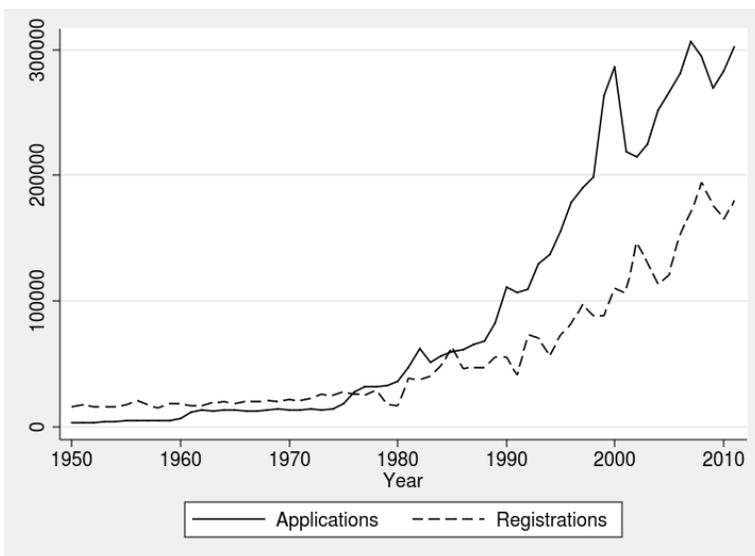


Figure 7 shows annual filings and registrations and indicates that both have increased geometrically over time. While analysis of long-term growth trends is limited, there has been dramatic growth in new filings and registrations since 1981, after which date data coverage is more complete. Annual applications have nearly tripled over the past two decades, consistent with broader economic growth but also suggesting intensified trademark use. Figure 7 shows new filings reflecting economic cycles, as evident by the considerable peak in applications around 1999-2000 (during the dot-com boom) and decline in 2009 (during the substantial recession). New registrations have increased by an order of four since 1991. In 2011 alone, new filings were over 300,000 and the USPTO issued about 180,000 new registrations.

Figure 7: New filings and registrations by year

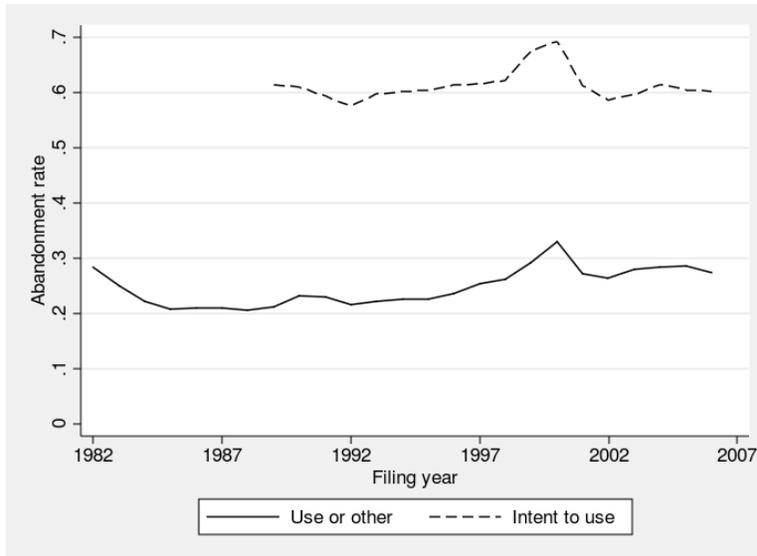


5.2.1.1 Dates and current status

The **case_file** date include dates for critical milestones in the life of a registered mark, including *filing date*, *publication date*, *registration date*, and *renewal date*. These date fields are populated based on the status of the application or registration as of the file generation date. Accordingly, pending or abandoned applications should not have a *registration date*. The *renewal date* field contains the date the registration was most recently renewed. Registrations cancelled prior to being at hazard of renewal or expired at the first renewal event should have no *renewal date*. For registrations renewed at least once prior to cancellation or expiration, the *renewal date* should contain the date the registration was last renewed.

The *case file header (cfh) status code* field contains a three-digit code signifying the last recorded status event (per the *cfh status date*) for the application or registration. There are 121 unique values for the *cfh status code* in **case_file**.¹⁶¹ Generally, this code will indicate whether, at the time this dataset was created, an application was abandoned or pending or a registration was live, cancelled, or expired.

Figure 8: Abandonment rate by filing year and basis at filing



5.2.1.1.1 Abandoned and pending applications

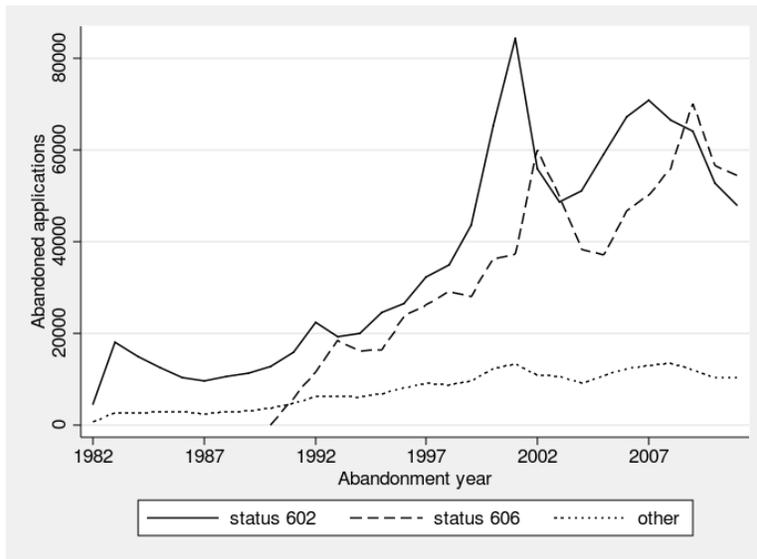
About 77.0 percent of the 2.7 million applications in **case_file** were abandoned by the applicant during prosecution (see Table 2). For these applications, the *cfh status code* will provide some indication as to the cause and/or timing of the abandonment. Generally, observations for abandoned applications will have a populated *abandonment date* indicating when the USPTO

¹⁶¹ For *cfh status code* definitions, see Table 1 of the TAD.

began treating the application as abandoned.¹⁶² Figure 8 shows abandonment rates by filing year cohort and legal basis at filing.¹⁶³ Abandonment rates of intent-to-use applications are more than double those of applications filed on a use or other basis, possibly due to the early, pre-use stage during which these applications arrive in the Office.

Figure 9 shows abandoned applications by exit year cohort and *cfh status code*. Most abandonments in the data occurred because the applicant failed to timely respond to an office action (status 602) or failed to file a SOU to establish use for an intent-to-use application (status 606). The peaks observed in abandonments in Figure 9 reflect lagged disposal of surges in new filings over time, as evident in Figure 7.

Figure 9: Abandoned applications by *cfh status* and abandonment year



Status 606 abandonments lag status 602 abandonments for applications filed in the same year because intent-to-use applications tend to involve lengthier prosecution. Figure 10 shows the distribution of years from filing to abandonment for abandoned applications based on legal basis at filing.¹⁶⁴ The median time to abandonment for applications filed based on use or other basis is about 1.1 year. The distribution is highly skewed by about 12,000 observations with abandonment

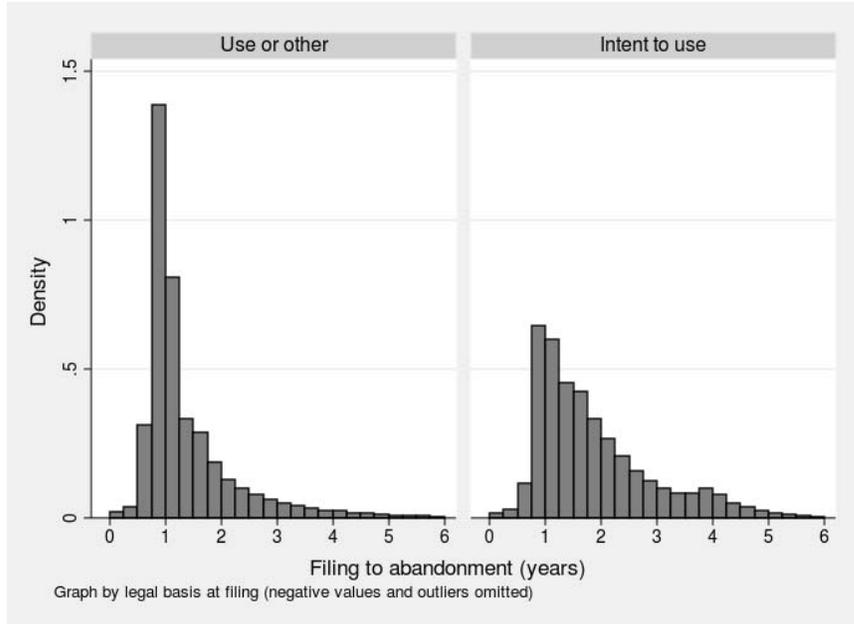
¹⁶² Note that the *abandonment date* in **case_file** may differ from the date an abandonment event is recorded in the prosecution **event** date file. We utilize the date fields in **case_file** throughout our analysis as the effective, rather than recorded, date for key events, including filing, publication, abandonment, registration, renewal, cancellation, and expiration.

¹⁶³ Figure 8 includes only filing year cohorts for which disposal via abandonment or registration is observable.

¹⁶⁴ We calculate time to abandonment based on the *abandonment date* where populated. We use the *cfh status date* if the *abandonment date* is not populated or appears to be erroneous (e.g. prior to the filing date). Applications filed based on use or other includes applications with multiple bases at filing.

dates that lag filing dates by more than five years.¹⁶⁵ The median time to abandonment for intent-to-use applications is 1.6 years. The distribution is less skewed for these applications, although time to abandonment tends to be longer.

Figure 10: Time to abandonment by legal basis at filing



There are 417,732 *serial numbers* in **case_file** for pending applications (see Table 2). For these observations, the *cfh status code* indicates the stage of prosecution occupied by the application as of the file’s generation date. About 17.8 percent had received but had yet to respond to a non-final action (status 641), and another 17.0 percent were new applications not yet assigned to an examining attorney (status 630). The remaining pending applications were dispersed across 74 different *cfh status* states as of the file generation date.

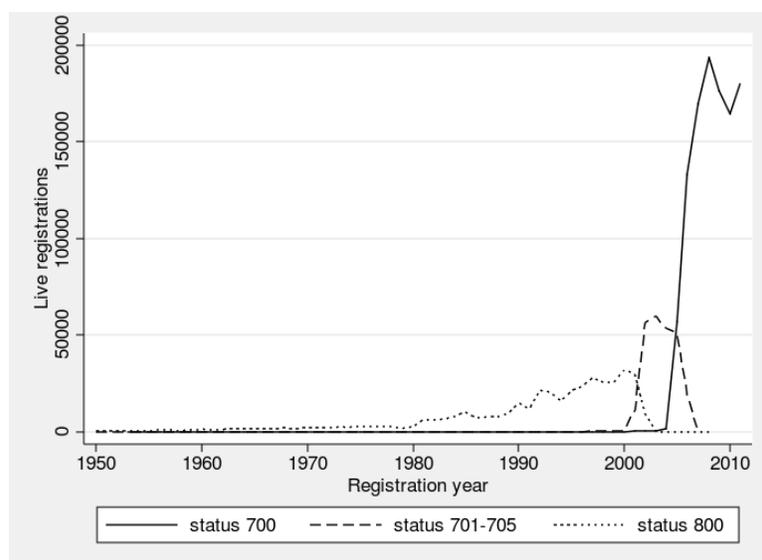
5.2.1.1.2 Live, expired and cancelled registrations

For the nearly 1.8 million live registrations in **case_file**, the *cfh status code* indicates whether the registration has yet to face a sixth year maintenance event, was maintained in the sixth year and has yet to face a ten-year renewal event, or was renewed at the last renewal event. Accordingly, data users may employ the *cfh status code* to group live registrations into cohorts based on age. Figure 11 shows live registrations by *cfh status code* and registration year. About 61.7 percent of live registrations in the dataset have a “Registered” *cfh status* (700). As an example, Figure 11 shows that live registrations in status 700 were predominantly issued after 2005 (i.e. at hazard of

¹⁶⁵ Most of these observations do not appear to be in error. Abandonments may occur over five years after filing, particularly if an *ex parte* appeals and/or *inter partes* opposition proceeding is instituted during prosecution. The median time to abandonment for applications with a TTAB event during prosecution (for all legal bases at filing) is 2.3 years.

six-year maintenance or cancellation starting in 2011).¹⁶⁶ This pattern is consistent with Figure 6 which shows more recently issued registrations comprising the majority of live marks in the dataset. Live registrations maintained in the sixth year, but yet to face a ten-year renewal event, have a *cfh status code* indicating that the registrant filed a §8 affidavit (status 701-705). Accordingly, Figure 11 shows that such registrations were largely issued between 2001 and 2006 (i.e. at hazard of renewal or cancellation/expiration between 2011 and 2016). Older live registrations are in “Registered and Renewed” status (800), reflected in Figure 11 as all having issued prior to 2001 (i.e. at hazard of renewal or cancellation/expiration starting in 2011). For live registrations in status 800, *case_file* will have a populated *renewal date*, which will correspond to only the most recent renewal event.

Figure 11: Live registrations by *cfh status* and registration year



There are 1.6 million “dead” registrations in *case_file*.¹⁶⁷ For these observations, the *cfh status code* indicates whether the registration expired or was cancelled under a specific section of the Lanham Act. Figure 12 shows expired and cancelled registrations by *cfh status code* and registration year. A registration is treated by the Office as expired (status 900) if the registrant fails to timely file a §9 renewal application for the last ten- or twenty-year renewal event. Generally, USPTO will not update records to show that the registration is expired until after the

¹⁶⁶ Note that registrations issued in 2005 and 2006 have faced cancellation for failure to file a §8 affidavit as of the file generation date but may remain live because the six-month grace period to file has not expired and/or updating of the USPTO’s records to reflect the cancellation lags the effective cancellation date.

¹⁶⁷ The dead registration is considered both cancelled and expired despite being coded as cancelled. Dead registrations that cancelled/expired for failure to meet both §8 maintenance and §9 renewal requirements can be identified using the prosecution event data (See Section 5.2.2). Such dead registrations should have a prosecution event indicating “CANCELLED SEC. 8 (10-YR)/EXPIRED SECTION 9.”

Figure 12: Dead registrations by *cfh status* and registration year

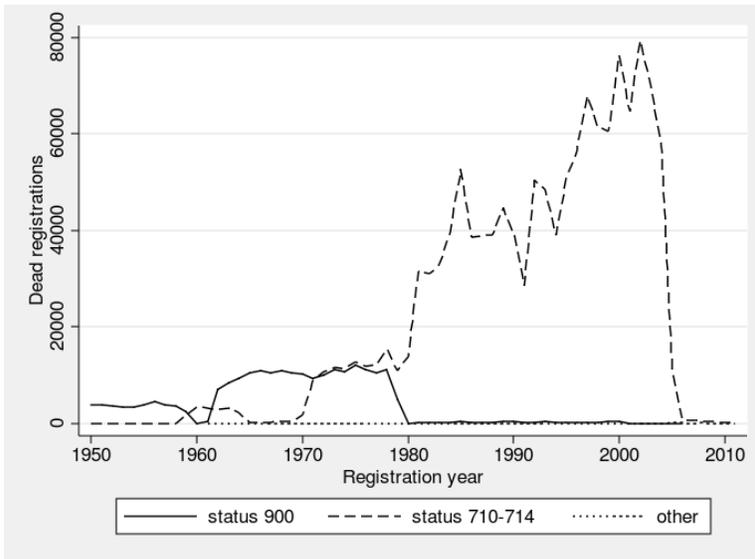
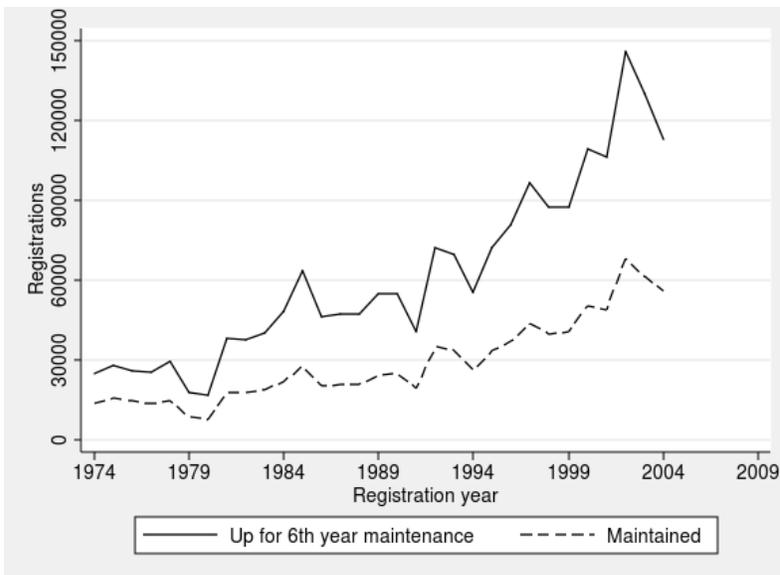


Figure 13: Registrations at hazard of sixth year maintenance or cancellation by registration year



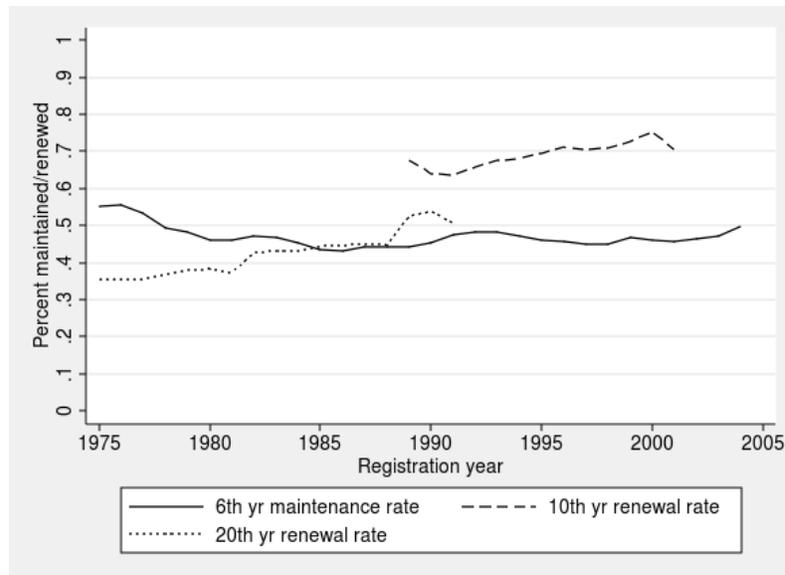
expiration of the grace period.¹⁶⁸ Registrations with expired status make up only about 6.4 percent of all registrations in the data and, as evident in Figure 12, were largely issued prior to 1980. Registrations with cancelled status are more frequent, comprising 34.0 percent of all registrations. This is in part because when a registration cancels/expires for failure to meet both §8 maintenance and §9 renewal requirements, the *cfh status code* is updated to show cancelled

¹⁶⁸ See TMEP § 1611(3).

status. Accordingly, Figure 12 shows nearly all dead registrations issued after 1980 in cancellation status (710-714).

Cancellations are also more common than expirations in the data because a sizeable share of registrants are cancelled in the sixth year for failure to timely file a §8 affidavit. Figure 13 presents the volume of registrations at hazard of sixth year maintenance or cancellation – and actually maintained – by registration year. For instance, of the 130,298 registrations issued in 2003 and at hazard of maintenance or cancellation in 2009, about 47.1 percent were maintained. The geometric growth in cancellations is consistent with rising registrations (see Figure 7) and suggests that maintenance rates have been reasonably stable over time. We examined maintenance rates and report these in Figure 14, showing that in fact sixth year maintenance rates have held at just below 50 percent since 1980 despite the rapid growth in new registrations. We also report tenth and twentieth year renewal rates in Figure 14, which reflect only the registrations in each issuance year cohort at hazard of renewal or cancellation/expiration in the tenth and twentieth year after registration, respectively. Accordingly, both rates are only observable for registrations issued in 1990.¹⁶⁹ About 63.9 percent of registrations in the 1990 cohort at hazard of renewal or cancellation/expiration in 2000 were renewed, while of those surviving to 2010, about 53.8 percent were renewed. Figure 14 suggests that tenth year renewal rates have trended up, with over 70 percent of registrations issued since 1998 and at hazard of renewal or cancellation/expiration in the tenth year being renewed.

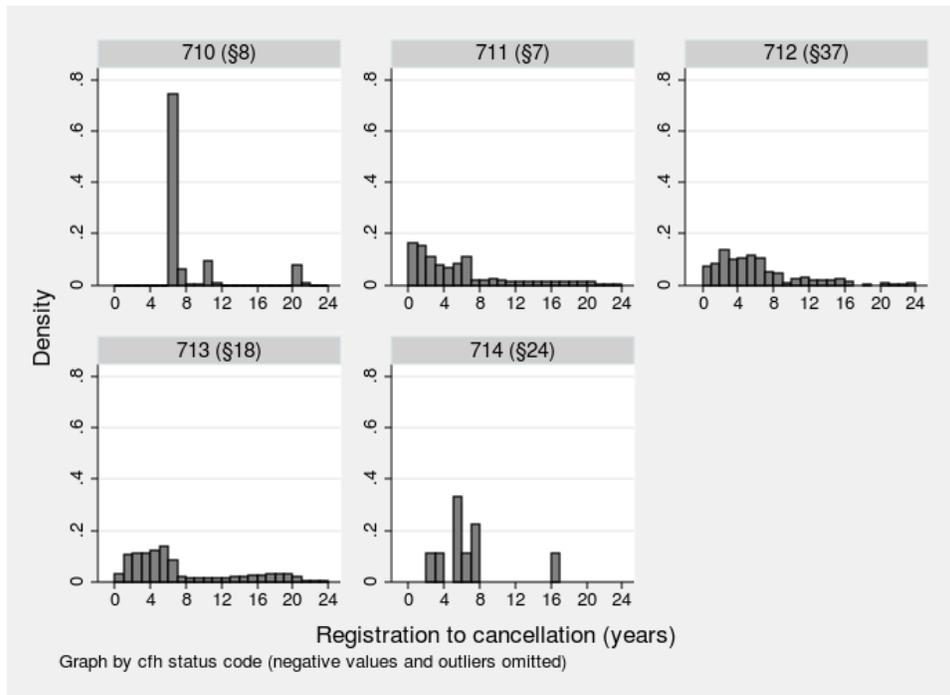
Figure 14: Sixth year maintenance and tenth and twentieth year renewal rates by registration year



¹⁶⁹ While Figure 14 shows both renewal rates for registrations issued in 1991, the twentieth year maintenance is not fully observable as of the file generation date due to potential delay in recording renewals in 2011.

Both *cfh status code* and *registration cancellation code* fields in **case_file** indicate under which section of the Lanham Act the registration was cancelled. Figure 15 shows the distribution of cancelled registrations by statute section and age at cancellation. The vast majority of cancelled registrations have *cfh status code* 710 and/or *registration cancellation code* 2 indicating cancellation under §8 of the Act (for failure to file §8 affidavit). Only about 1.1 percent of all cancelled registrations in the data were cancelled under §18 (status 713, for action taken by the USPTO Director following an *inter partes* proceeding). Another 0.8 percent was cancelled under §7 (status 11, for voluntary surrender by the registrant).

Figure 15: Time to cancellation by *cfh status* (statute under which cancelled) and registration year



For cancelled registrations, the *registration cancellation date* in **case_file** reflects when the cancellation was recorded. Figure 15 shows the distribution of years from issuance to cancellation for cancelled registrations by the statute under which they were cancelled.¹⁷⁰ As with expirations, the USPTO’s records are not updated to reflect a cancellation until after the expiration of the grace period.¹⁷¹ Accordingly, most §8 cancellations in the sixth year are not recorded until the seventh year after registration. The median time to cancellation for all §8 cancellations is 6.8

¹⁷⁰ We calculate time to cancellation based on the *registration cancellation date* where populated. We use the *cfh status date* if the *registration cancellation date* is not populated or appears to be erroneous (e.g. prior to the registration date). These dates are not the same as the effective cancellation date because, as indicated earlier, the USPTO’s records are not updated to reflect cancellation until after the expiration of the grace period for filing a §8 affidavit.

¹⁷¹ See TMEP § 1611(3).

years. As Figure 15 indicates, most cancellations are recorded within eight years of issuance, regardless of the statutory provision under which they were cancelled in the federal system.¹⁷²

We observe partial cancellations for about 1.0 percent of live registrations in **case_file**. For these observations, the *cfh status code* reflects the status of the class(es) that remain live. The *registration cancellation code* indicates under which section of the Lanham Act the partial cancellation occurred. For example, a *registration cancellation code* of B indicates cancellation under “Section 8 – Class(es) in multiple class Registration.” The *registration cancellation date* will generally reflect when the partial cancellation was recorded.

5.2.1.2 Mark type

Case_file includes a set of indicators for each mark type: *trademark*, *service mark*, *certification mark*, and *collective (trade, service or membership) marks*. As Table 2 indicates, most *serial numbers* in **case_file** are for trademarks. Service marks make up over a third of the observations in the data file. Collective and certification marks remain a minor share of applications and registrations. Together, *serial numbers* for these marks comprise only about 0.3 percent of the dataset. Note that an application may be filed with only a goods class or only a service class listed but, through amendment during prosecution, be registered in both goods and services classes as both a trademark and a service mark. However, since mark type is only captured by time invariant indicators, such changes are not observable in the data.

Figures 16 and 17 show the rise in service mark applications and registrations, respectively, and may reflect the broader rise of the service sectors in the U.S. economy over time.¹⁷³ While trademarks remain dominant, service mark applications and registrations comprise a growing share of annual volumes. Service mark registrations increased from 26.7 percent of registrations issued in 1992 to over 39.0 percent of annual registrations issued each year since 2009. Of particular interest in Figure 16 is the substantial spike in service mark registrations during 1999-2000. We speculate that this spike is related to the dot.com boom of the late 1990s. Recall that mark types are not mutually exclusive: **case_file** contains about 292,000 *serial numbers* cited as both trademarks and service marks. As shown in Figures 16 and 17, such marks have grown to comprise a nontrivial share of applications and registrations. In 2011, marks used on both goods and services made up about 7.5 percent of applications and 6.9 percent of issued registrations.

¹⁷² It is important to note that a dead federal registration does not necessarily mean that the mark is no longer in use in commerce. A mark owner may opt to not maintain a registration while retaining use of a mark and common law trademark protection.

¹⁷³ In Figure 16, applications are included in the trend if the observation includes positive indicators for trademark, service mark, both trademark and service mark, or other type (certification or collective). The data does not capture mark type at filing, per classes listed at the filing date, or amendments to mark type or classes during prosecution.

Figure 16: Mark type by filing year

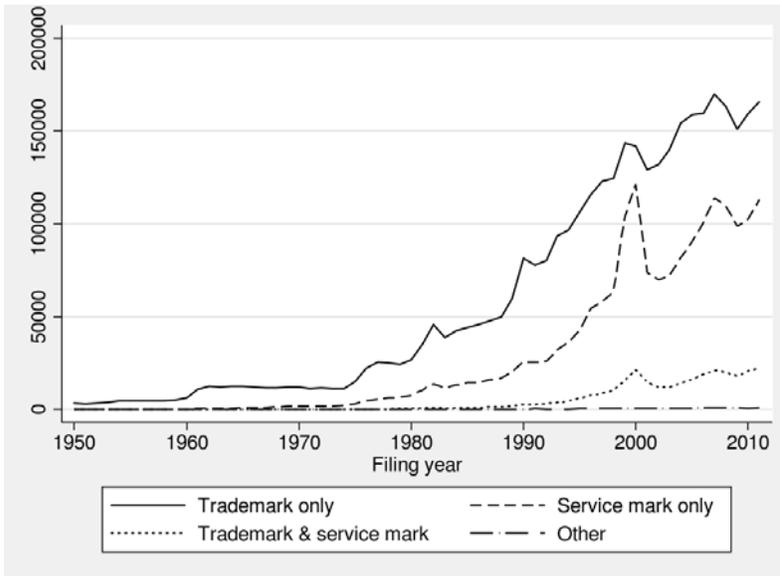
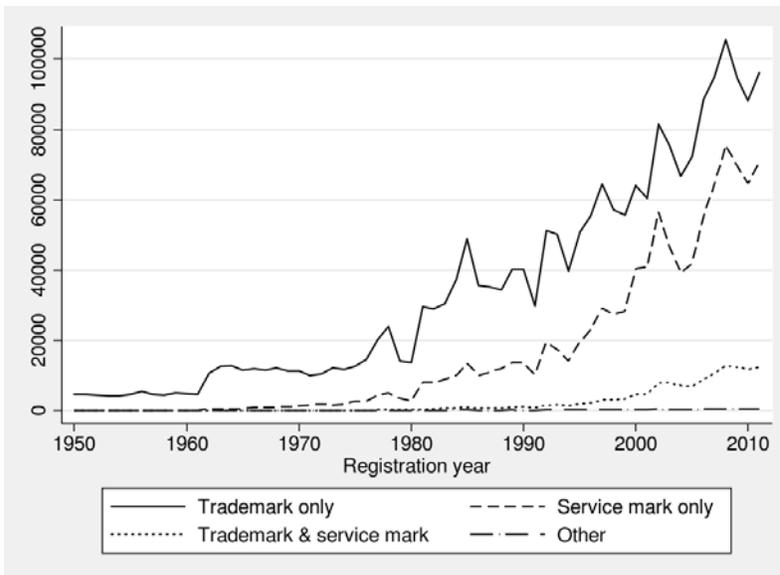


Figure 17: Mark type by registration year



5.2.1.3 Mark depiction and text

The *mark drawing code* in `case_file` indicates whether the registration or 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. If the mark includes any words, letters or numbers, the *mark identification character* field will contain that text.

Most marks in the dataset contain some text, and we find that standard character marks are the most common type of *mark drawing*. Figures 18 and 19 shows the trend in registrations of standard character marks and marks of other forms. The vast majority of annual registrations are

consistently issued for standard character marks, possibly reflecting applicants' response to the greater flexibility and potentially broader protection afforded by registration of such marks compared to other forms (see Section 4.1.1). Registrations of design marks with characters comprise a growing share of new registrations issued each year. Together, registrations of standard character marks and design marks with characters make up over 90 percent of registrations issued during the last decade.

Figure 18: Standard character mark drawings by registration year

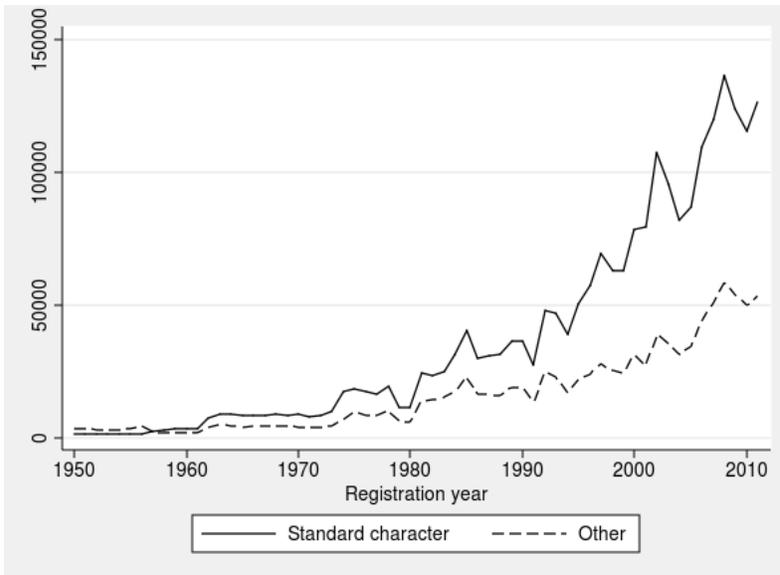
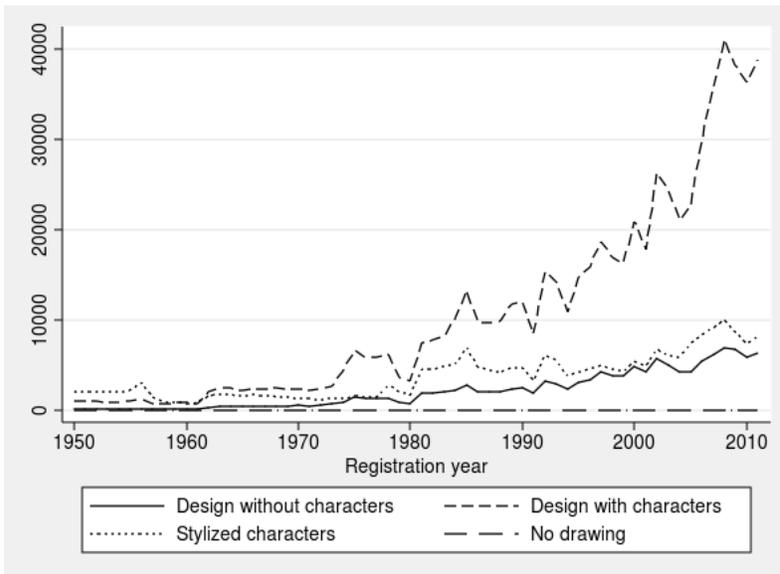


Figure 19: Other mark drawing forms by registration year



Serial numbers for marks with stylized characters and designs without characters comprise about 8.5 percent of all observations in the data. Sound, smell, and other non-visual marks that cannot

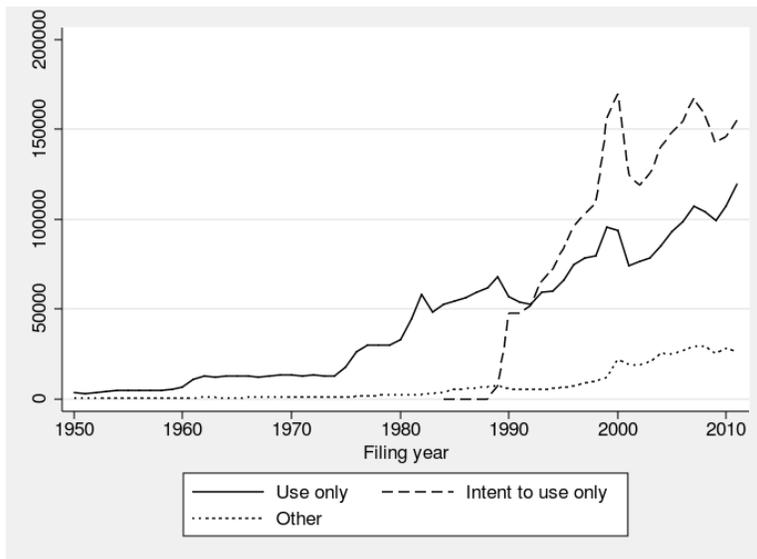
be represented by a drawing are extremely rare. There exist only 477 total applications or registrations for such marks in the dataset.

5.2.1.4 Legal basis for filing

The **case_file** data also include a set of indicators for the applicant’s legal basis for filing: *use*, *intent to use*, *foreign (application or registration) priority*, *international registration*, and *none*. Included is a set of indicators corresponding to both the legal basis at time of filing, as well as at the time **case_file** was generated. For much of the time period the data cover, applicants could only file for a registration based on use in commerce. However, *serial numbers* for applications filed based on intended use comprise roughly the same share of observations as those based on use (see Table 2).¹⁷⁴

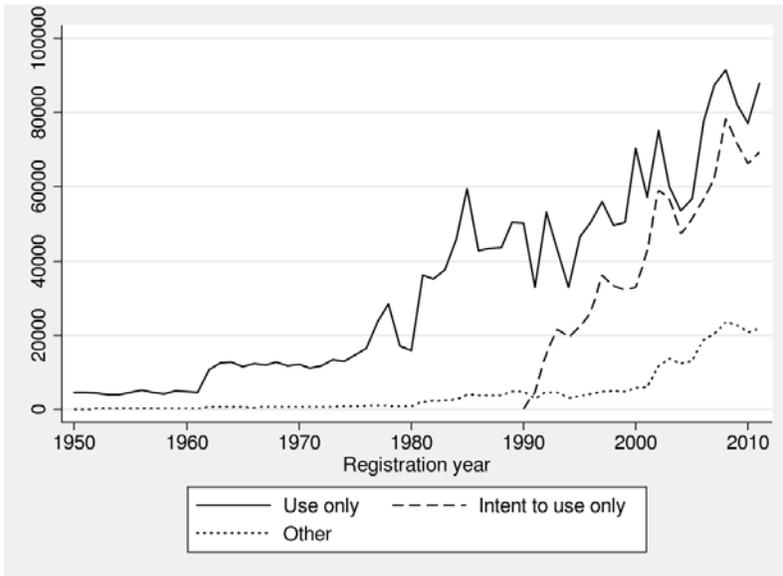
Figure 20 shows the rapid rise of intent-to-use applications during the last two decades. Annual filings of intent-to-use applications surpassed use applications within five years of their introduction in 1989 and have since comprised the majority of new applications. Despite this growth, as evident in Figure 21, applications filed based on use remain a majority of registrations issued each year, reflecting in part the significantly higher abandonment rates observed for intent-to-use applications (see Figure 8).

Figure 20: Applications by legal basis for filing and filing year



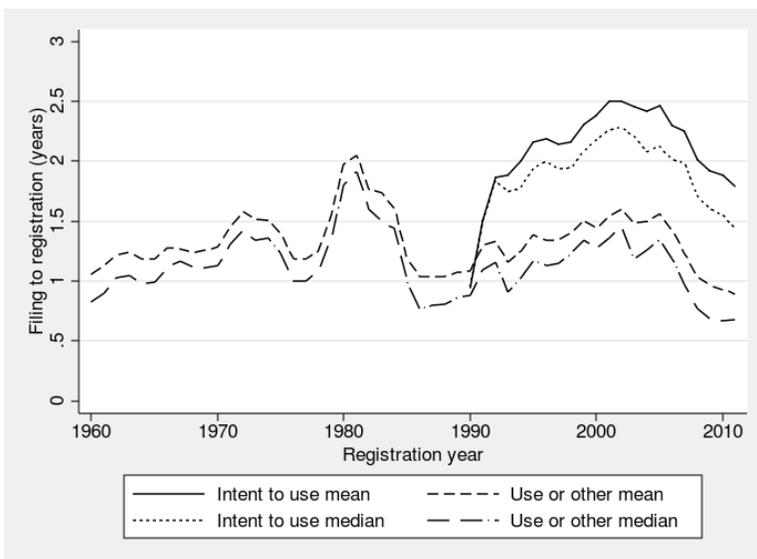
¹⁷⁴ Note that Table 2 includes *serial numbers* filed based on both use and intended use as applicants can list a different filing basis per class.

Figure 21: Registrations by legal basis for filing and registration year



It may also be the result of a lengthier time to issue for intent-to-use applications. Figure 22 shows the mean and median time to issuance for registrations by registration year and legal basis for filing. The median time to issuance is 1.2 years for all registrations filed based on use and 1.9 years for all those filed based on intended use. Each distribution is skewed by around 20,000 registrations with issuance dates lagging filing dates by over 5 years. Figure 22 does indicate similar downward trends in the time to issuances for registrations filed based on use and intended use over the last decade. The median time to issuance has decreased from 1.5 years in 2002 to 0.7 years in 2011 for registrations filed based on use. It has declined from 2.3 years to 1.4 years over the same period for registrations filed based on intended use.

Figure 22: Time to issuance by legal basis for filing and registration year



Applications filed on the basis of foreign priority or international registration comprise about 5.9 percent of observations in **case_file**. Figure 20 and Figure 21 show growth in new filings and registrations, respectively, of these types of applications over the past decade. In 2011, applications filed on these bases consisted of 7.8 percent of new filings and 11.4 percent of issued registrations.

5.2.1.5 Other indicators

Case_file contains several additional indicators that we will discuss briefly. Applicants can make various amendments to an application to overcome a refusal or comply with a requirement during prosecution. **Case_file** includes indicators for: *amendment to legal basis for filing*, *amendment to principal register*, and *amendment to supplemental register*. The **case_file** data also contain indicators for less common events that may occur during a registration's lifecycle such as *republification*¹⁷⁵, *opposition pending*, *cancellation pending*, *concurrent use*, *acquired distinctiveness*, and *affidavit of incontestability*. Table 2 indicates how infrequent most of these events are in the data.¹⁷⁶

5.2.1.6 International registrations

Case_file contains international registration variables for 107,040 registrations issued under the Madrid Protocol. These variables include *international registration date and number*, *renewal date*, *current status*, and *date assigned U.S. registration*. The Madrid Protocol allows for a mark owner to file an international application through the International Bureau of the World Intellectual Property Organization who administers the international registration system. The resulting international registration serves as a means to seek protection in member countries.¹⁷⁷

5.2.1.7 Correspondent address, domestic representative, and attorney

We separated fields containing free-form text from **case_file** to reduce its size. We included these fields in the **correspondent_domrep_attorney** data file. It contains the *correspondent address* for the correspondent of record as of the file generation date for each *serial number* in the dataset.¹⁷⁸ There are five text fields for *correspondent address* in the data file containing the correspondent name(s) and address. These fields are populated for about 5.5 million *serial numbers* in the dataset. The **correspondent_domrep_attorney** data file also includes fields for *attorney name*, a non-standardized *attorney docket/reference number*, and the name of a *domestic*

¹⁷⁵ Pre-Lanham Act marks can obtain some benefits of the Lanham Act by voluntarily following the republification process. See Lanham Act § 12(c), 15 USC § 1062(c).

¹⁷⁶ Note that opposition and cancellation indicators are for pending proceedings only. The **event** data file will contain data on concluded proceedings.

¹⁷⁷ For more information on the Madrid Protocol, see <http://www.uspto.gov/trademarks/law/madrid/index.jsp>.

¹⁷⁸ While there may be multiple *correspondent addresses* for a *serial number*, our dataset only captures the name(s) and address of the correspondent of record in TRAM as of the file generation date. For more information on how an applicant, registrant, or assignee can change the *correspondent address* for an application or registration, see TMEP § 609.02.

representative. The *attorney name* is populated for 4.3 million *serial numbers*. A foreign applicant may designate a *domestic representative*, residing in the United States, to whom the USPTO may serve notices affecting the mark.¹⁷⁹ There are only about 589,000 *serial numbers* with a populated *domestic representative* field.

We now focus on the secondary and tertiary data files in the Trademark Case Files Dataset. Table 3 presents the total number observations and distribution per *serial number* for key secondary data files. We will reference this table as we discuss each individual data file in the sections below.

Table 3: Observations per unique *serial number* in data file

Data file	(1)	(2)	(3)	(4)
	count	per <i>serial number</i> ¹		
		mean	sd	median
event	79,226,385	13.475	9.075	12
owner	13,813,383	2.363	1.109	3
classification	7,238,351	1.237	0.833	1
statement	11,779,403	2.024	1.272	2
design_search	3,721,378	2.949	2.016	2
prior_mark	1,627,902	2.101	2.260	2

1) Calculated only for unique *serial numbers* observable in each data file

5.2.2 Event

The **event** data file contains an observation for each event recorded during prosecution of the application or registration, including docketing, office actions, abandonment, publication for opposition, TTAB proceedings, maintenance, and renewal. For each prosecution event, the data file contains an *event code*, *date*, *sequence order* and *type category*. Generally, the *event date* indicates when the event was recorded in TRAM. This may differ from the effective date.¹⁸⁰ For effective dates of critical events, including publication, abandonment, registration, cancellation, and renewal, we use the date fields in **case_file**. For dates not present in **case_file**, we rely on the *event date* field in the **event** data file.

There are, on average, 13.5 event observations per *serial number* and 5.9 million unique *serial numbers* in **event** (see Table 3). Event observations encompass all events recorded in the prosecution history, including office actions as well as post-registration maintenance and renewal events. Observable events per *serial number* vary by data era. The mean number of events per *serial number* is 14.5 for applications filed since 1982 but only 4.1 for *serial numbers* with earlier

¹⁷⁹ 37 CFR § 2.24. See TMEP § 610.

¹⁸⁰ The dates may differ due to delays in recordation as well as reinstatement of applications following an abandonment event or revival of a registration following a cancellation event.

filing or registration dates. This reflects improved recordation as well as growth in the total number of possible events recorded over time. For example, events for office action issued via email (rather than mail) are only observable for applications filed starting in the late 1990s.

There are 607 unique *event codes* in the data file, but there may be multiple *event types* for a single *event code*. The *event type* may indicate a group of similar *event codes*, such as *event type T* which specifies events related to a TTAB proceeding, or designate whether a correspondence is incoming or outgoing.¹⁸¹ Generally, we find that *event codes* of interest tend to have only one possible or an irrelevant *event type*. For example, the *event code* DOCK, specifying docketing (assignment of the application to an examining attorney), is always accompanied by *event type* D. Whereas the *event code* GNFR designates a final refusal whether the *event type* is F, O, or S. Appendix II contains all possible combinations of *event code* and *event type* observable in **event** with *event descriptions* and *frequency counts*.¹⁸²

5.2.2.1 Prosecution event flow

The number and variation of observed prosecution events also differ based on an application's legal basis for filing. To demonstrate this, we mapped the flow of prosecution events for 143,689 *serial numbers* with filing dates in 1995.¹⁸³ We generated separate flows for applications filed on the basis of use and intent to use, omitting applications with other or multiple bases. Figure 23 presents the flow of observable prosecution events for 63,271 applications filed in 1995 on the basis of use in commerce. Figure 23 includes "exit" percentages calculated as the percentage of all outflows from a particular state. It should be evident from Figure 23 that tracking an application through prosecution based on the **event** data may be problematic. Often events appear out of logical sequence or not at all. Nevertheless, there is sufficient data coverage for users to conduct meaningful analysis.

Figure 23 indicates that most docketed use applications filed in 1995 were issued at least one non-final action. A little more than a third was approved for publication without any office action. For those use applications issued a non-final action, most were subsequently approved for publication while only 12.1 percent were issued a final refusal. About half of the applications issued a final refusal were published. Only 10.3 percent of applicants who received a final refusal appealed to the TTAB. Over half the applications with an appeal instituted were eventually published, presumably because the appeal was dismissed, the application was returned to the examining

¹⁸¹ See the Case File Event Statements Section of the TAD.

¹⁸² See also TAD Table 5 for prosecution event codes, types and descriptions.

¹⁸³ We generated flows using effective dates for *filing*, *publication*, *abandonment*, *registration*, *cancellation*, and *renewal* from **case_file** and *event_date* for all other prosecution events included in flows from **event**. To simplify flows, we included only the first occurrence in the sequence of docketing, non-final action, and final refusal events and only the last occurrence in the sequence of appeal, opposition, use amendment accepted, NOA issued, SOU accepted, and maintenance (6YR) events. We also omitted any applications revived after abandonment or reinstated after cancellation.

Figure 23: Prosecution event flow for 1995 filing year cohort, use basis at filing

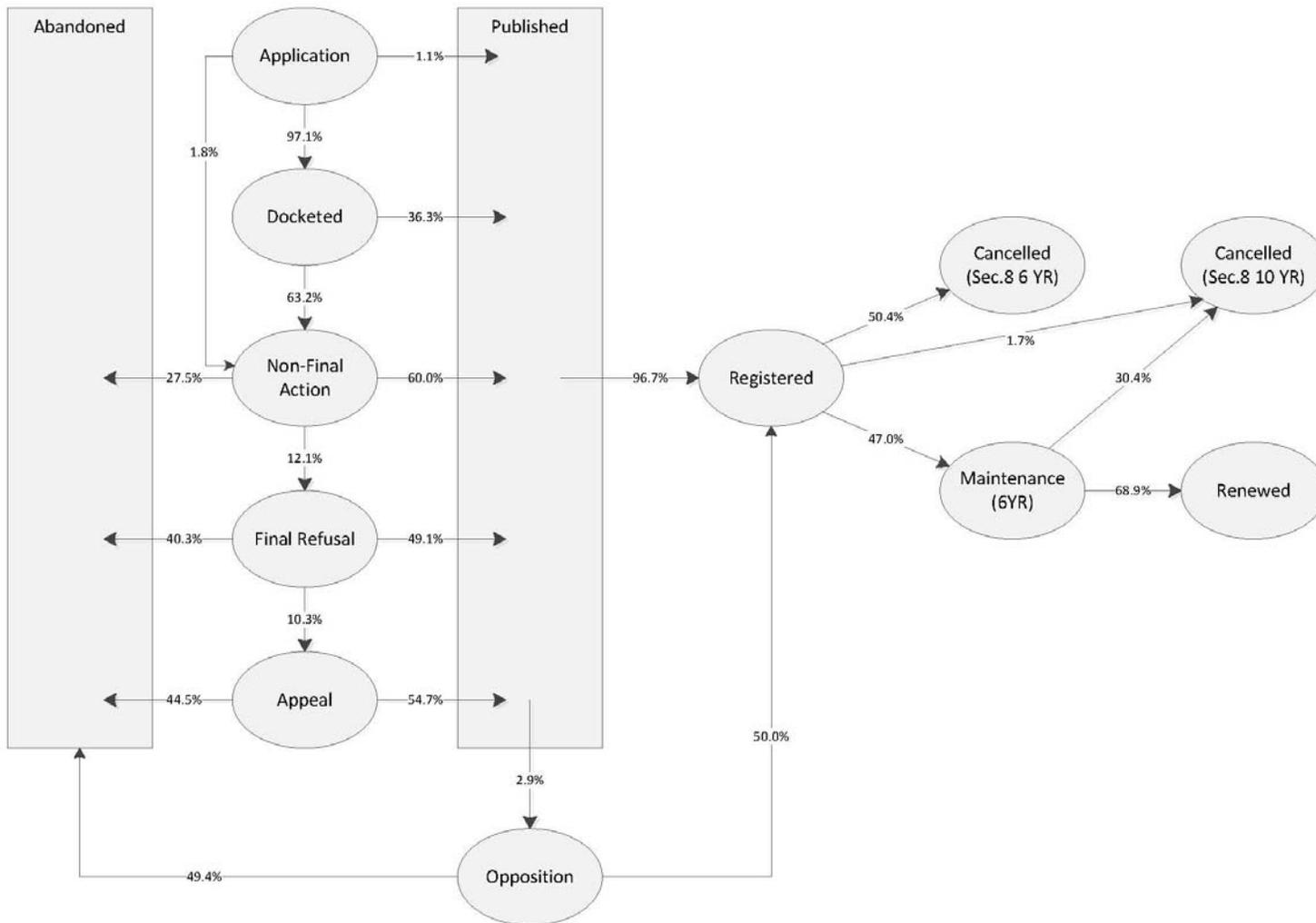


Figure 24: Prosecution event flow for 1995 filing year cohort, intent-to-use application, no use established

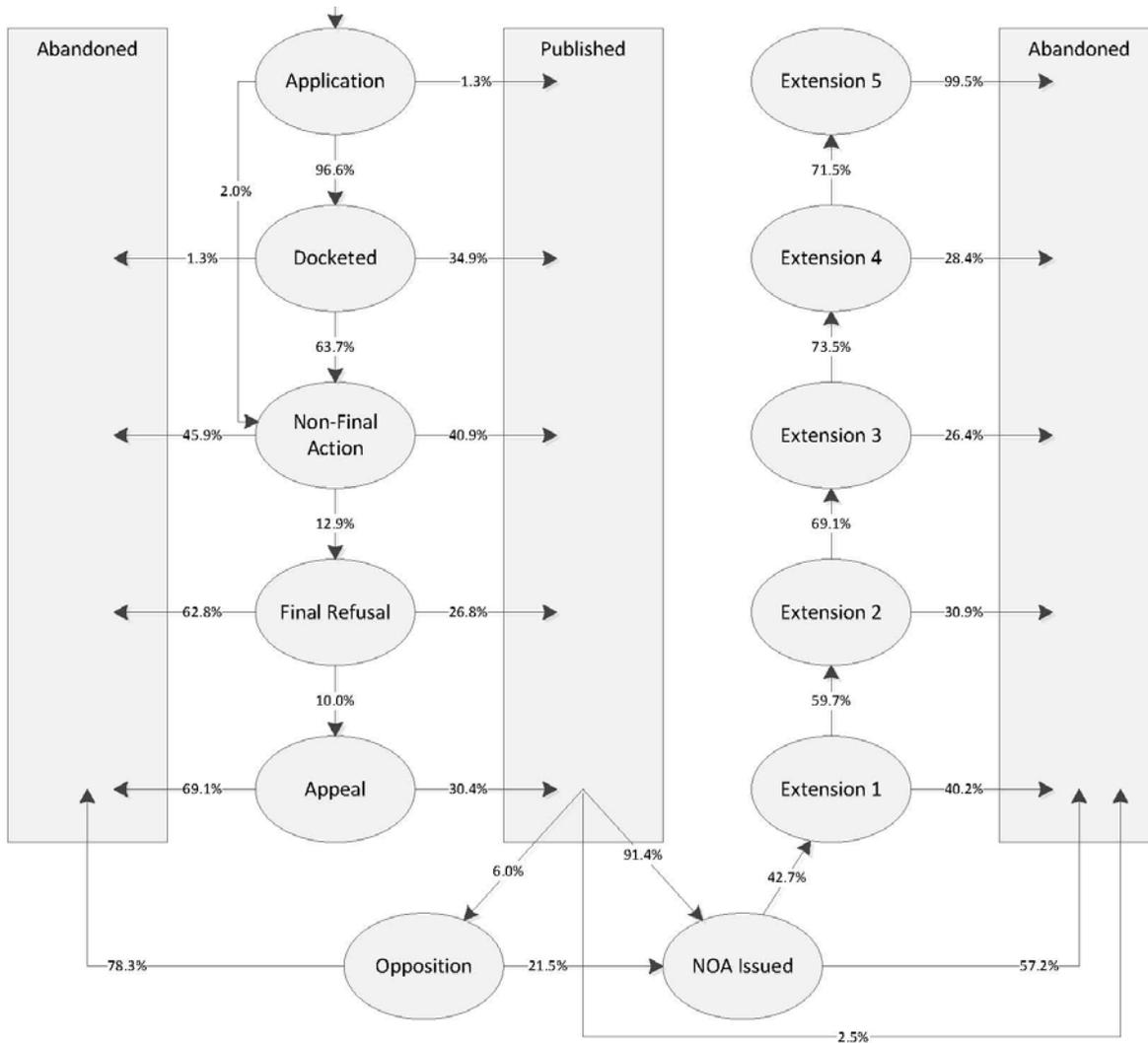
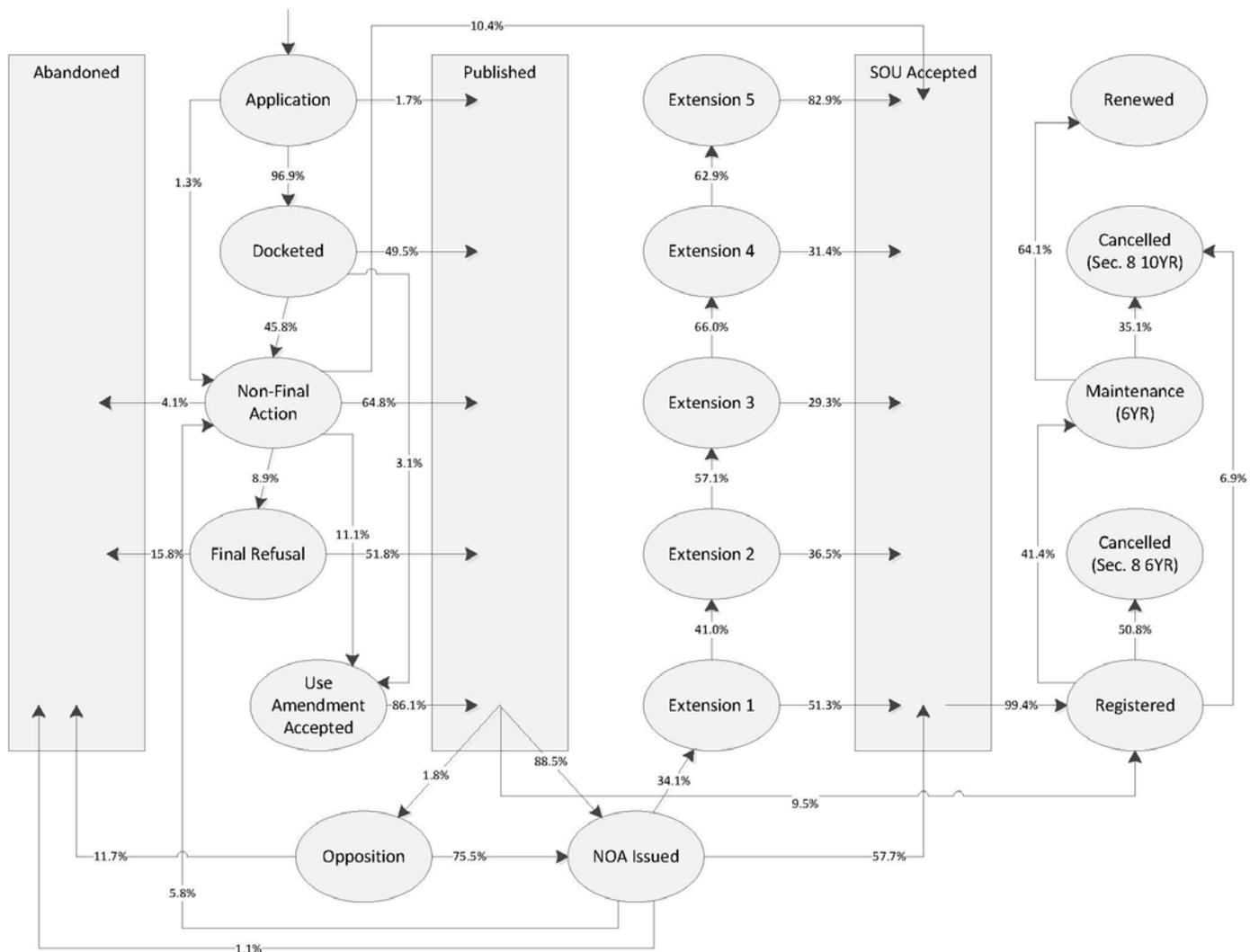


Figure 25: Prosecution event flow for 1995 filing year cohort, intent-to-use application, use established



attorney's jurisdiction and approved for publication, or the refusal was reversed per TTAB decision.

The data show about 78.8 percent of the use application cohort in Figure 23 was published. The vast majority of these applications were registered without any opposition. An opposition proceeding was instituted for only about 2.9 percent of published applications. Of those, half were eventually registered. Accordingly, 98.1 percent of published use applications were registered. Consistent with maintenance rates in Figure 14, Figure 23 indicates that roughly half these registrations were cancelled under §8 in the sixth year after registration. Of those maintained in the sixth year, 68.9 percent were renewed in the tenth year. These surviving registrations represent about 24.8 percent of the application cohort and 32.0 percent of the registered subset.

Figure 24 and Figure 25 present the prosecution flow for applications filed in 1995 based on intended use. Figure 24 contains only the 48,101 intent-to-use applications that did not establish use during prosecution and, consequently, were abandoned. Figure 25 includes only the 32,317 intent-to-use applications that established use prior to registration or abandonment. Accordingly, only Figure 25 shows post-registration events.

The flow of pre-publication events in Figure 24 is very similar to that of use applications in Figure 23. About 63.7 percent of docketed intent-to-use applications in Figure 24 are issued a non-final action. Of those, about 12.1 percent are issued a final refusal and only about 10.3 percent of applicants institute an appeal after being issued a final refusal. The flows differ in the share of applications abandoning at each stage. Intent-to-use applications in Figure 24 appear more likely to abandon at each stage after docketing. For example, 45.9 percent of intent-to-use applications in Figure 24 abandoned after being issued a non-final action. Only 27.5 percent of use applications in Figure 23 abandoned at that stage in prosecution. Interestingly, intent-to-use applications that eventually establish use appear even less likely to abandon during pre-publication stages. As Figure 25 shows, only 4.1 percent of such applications abandoned after being issued a non-final action. This suggests that the viability of intent-to-use applications may be evident even in early stages of prosecution.

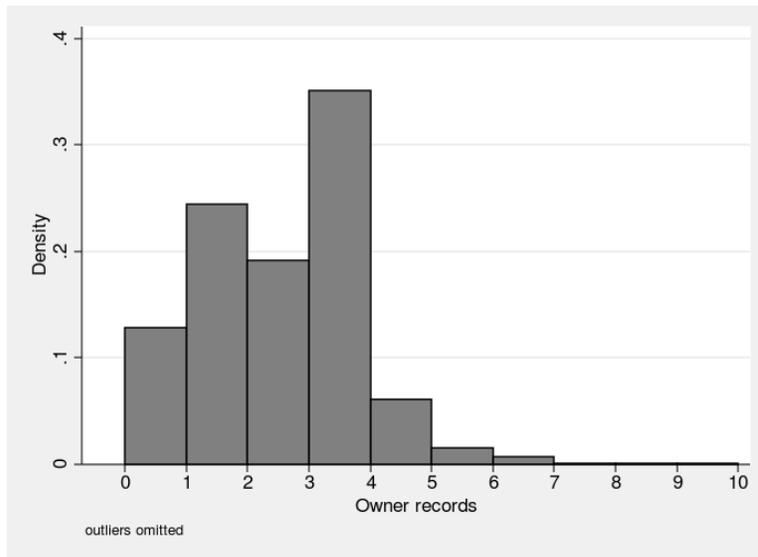
The data indicate that about 63.7 percent of intent-to-use applications in Figure 24 were published. An opposition proceeding was instituted for about 6.0 percent of these published applications and 78.3 percent of opposed applications abandoned. By contrast, an opposition proceeding was instituted for only 1.8 percent of published applications in Figure 25 and, of these, only 11.7 percent were abandoned.

The vast majority, about 94.3 percent, of the intent-to-use applications that establish use during prosecution in Figure 25 were registered. The flow of post-registration events in Figure 25 is very similar to that of Figure 23. About half the registrations are cancelled under §8 in the sixth year and, of those maintained, about 64.1 percent are renewed in the tenth year. These surviving registrations represent about 24.6 percent of the application cohort included in Figure 25 and 26.1 percent of the registered subset.

5.2.3 Owner

The **owner** data file contains an observation for each owner recorded for the mark application or registration. It includes the owner's *name*, address (*street address*, *city*, *state*, *country* and *postal code*), and nationality (*state* or *country* of citizenship, origin, or incorporation). There is also a *legal entity code* which indicates whether the owner is a corporation, individual, partnership, government agency, etc. **Owner** also includes user-populated fields for any *alternative names* under which the owner conducts business and references to individuals or firms that *compose of* the owning entity.

Figure 26: Number of owner records per serial number



There are, on average, 2.4 owner records per *serial number* and 5.8 million unique *serial numbers* in **owner** (See Table 3). Figure 26 shows the distribution of *serial numbers* in the dataset by the number of owner records. It includes the 860,866 *serial numbers* present in **case_file** with no matching observations in the **owner** data file. There are 1.6 million *serial numbers* with a single owner record. The remaining 4.2 million *serial numbers* have multiple owners recorded. Of these, most have three observations in the **owner** data file. We refer to observations in **owner** as owner records rather than owners because a *serial number* may have the same owner recorded multiple times for different *owner types*. For earlier applications and registrations, the ownership data was captured in TRAM at certain key points in prosecution, such as application, publication, and registration, even if ownership did not change.¹⁸⁴ The *owner type code* indicates whether the owner record was captured for the applicant (*owner type* 10) or a subsequent owner, and the *owner sequence* indicates the within *type* sequence.¹⁸⁵ Counting each observation as a distinct

¹⁸⁴ For example, there is one *serial number* in the dataset with 108 owner records. However the same 36 *owner names* are recorded three separate times for each *owner type code* value 10, 20, and 30.

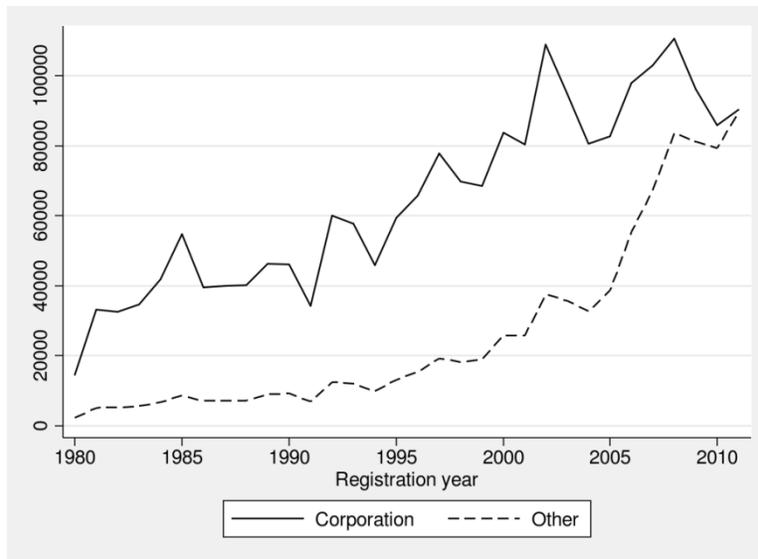
¹⁸⁵ See the Case File Owner Section of the TAD.

owner without accounting for *owner type* will tend to overstate the number of owners for an individual *serial number*. Additionally, since there is no requirement to record trademark assignments (see Section 4.3), the **owner** data may not reflect a full chain of ownership.

5.2.3.1 Legal entity

The mark owner populates the *legal entity code*.¹⁸⁶ There are 24 unique values for the *legal entity code* in **owner**, each with potential tax and legal implications. For example, there are different *legal entities code* values for Joint Stock Company, Limited Liability Joint Stock Company, Company and Limited Liability Company (LLC). Owners may also select a *legal entity type* of "Other." For these observations, the *entity description* field should be populated with an owner-provided description or statement.¹⁸⁷

Figure 27: Registrations by owner legal type and registration year



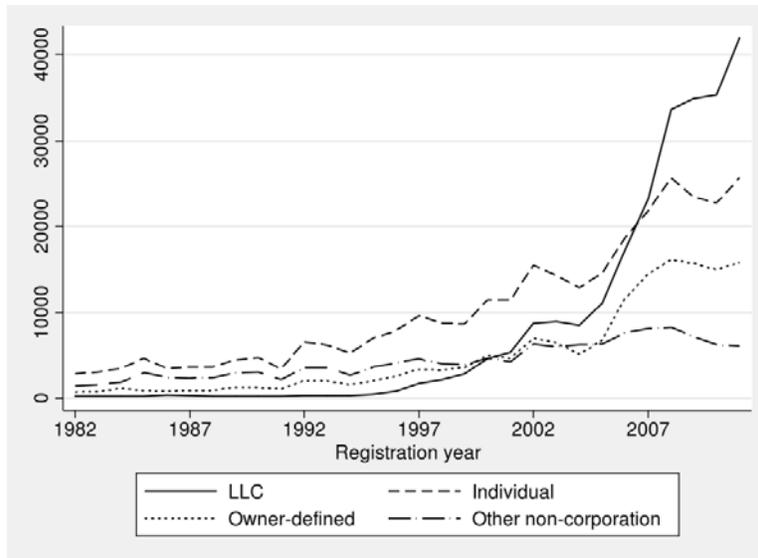
Most mark owners in the data are corporations. About 63.8 percent of all records in **owner** cite corporation for *legal entity*. Individual owners are the second most common but comprise only about 11.8 percent of observations in the data file. **Owner** observations with a *legal entity code* for LLC make up another 9.0 percent. Non-corporate owners are more common in recent registration year cohorts. Figures 27 and 28 show registrations by *legal entity* of the first-named owner (regardless of *owner type code*) and registration year. Corporations have owned a declining majority of registrations issued each year since the mid-1980s. As Figure 27 indicates,

¹⁸⁶ The *legal entity code* field is populated for all observations in **owner**. However, there are 126,102 observations in **owner** with a *legal entity code* value of 98 indicating unknown *legal entity type*.

¹⁸⁷ There are 665,012 observations in **owner** with a *legal entity code* value of 99 indicating "Other." Of these, 98 percent have a populated *entity description*. These *entity descriptions* include terms that are the same or equivalent to *legal entity code* definitions. Common *entity descriptions* in the data include Non-Profit Corporation, Limited Liability Corporation, Societe Anonyme, and Gmbh.

registrations issued to non-corporation owners have increased considerably over the past decade, approaching parity with registrations issued to corporations in 2011. Much of this rise in non-corporate ownership involves LLCs. Figure 28 shows the dramatic increase in LLC-owned new registrations from nominal levels prior to 1995 to 23.3 percent of all registrations issued in 2011. While growing at a slower rate, individual-owned registrations also comprise an increasing share of new registrations. About 14.3 percent of new registrations were issued to individuals in 2011.

Figure 28: Registrations by (non-corporation) owner legal type and registration year



5.2.3.2 Origin

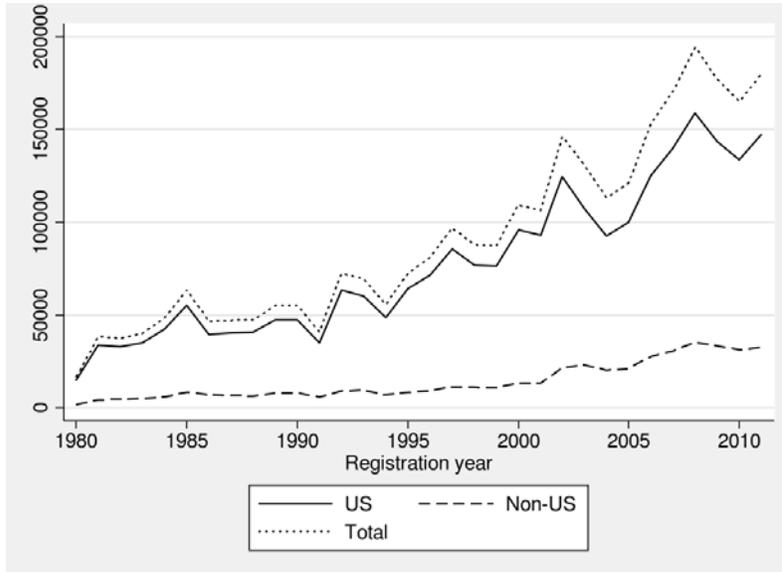
The vast majority of applications and registrations in the dataset involve domestically-owned marks. U.S. owners make up about 85.4 percent of all observations in **owner** based on the *owner address country* or *state code*.¹⁸⁸ Domestic application or registration ownership is dispersed geographically across all states. However, owners with addresses in California (19.0 percent), New York (11.0 percent), Illinois (5.5 percent), Florida (5.5 percent), Texas (5.3 percent), and New Jersey (4.3 percent) account for about half of U.S. owner records in **owner**. There are 251 unique country codes for foreign owner records in the data file. A little over half report owner addresses in Canada (14.8 percent), Germany (11.7 percent), United Kingdom (9.7 percent), Japan (8.5 percent), and France (7.7 percent). Figure 29 shows domestic and foreign origin registrations based on the country listed in the first-named owner's address.¹⁸⁹ While U.S. owned

¹⁸⁸ Tables 2A and 2B of the TAD contain U.S. state and country code definitions. An observation in **owner** is assumed to be for a domestic owner if the *address country code* is "US" or the *address state code* is populated. An observation is assumed to be for a foreign owner if the *address country code* or *address other code* is populated with a value other than "US."

¹⁸⁹ Alternative methods for defining origin may yield different trends.

registrations remain the majority of newly issued registrations, foreign owner registrations have represented a growing share since the early 2000s.

Figure 29: Registrations by country of origin (per first named owner address) and registration year.



5.2.3.3 Owner name change

The **owner_name_change** data file contains *assignment/name change text* for about 425,000 observations in **owner** and 269,000 unique *serial numbers*. Information in this data file may be valuable for deciphering the chain of ownership when an application or registration is assigned between parties. The free-form *assignment/name change text* field typically includes a description of the assignment (or nature of conveyance). For example, the *assignment/name change text* may include “ASSIGNMENT”, “BY CHANGE OF NAME”, “BY MERGER”, or “BY LICENSE.” The field also contains one or more name change codes which specify the *owner type* (as in the **owner** data file) of entities involved in the assignment.¹⁹⁰

5.2.4 Classification

The **classification** data file contains an observation for each primary class listed for the application or registration. Each observation in **classification** includes the *primary code*, specifying the primary class¹⁹¹, and *classification status code*, indicating whether the class is live, abandoned, expired, or partially or completely cancelled as of the *classification status date*. For

¹⁹⁰ See the Case File Owners Section of the TAD.

¹⁹¹ For a complete listing of classes with detailed descriptions, see TMEP § 1400. Some entries contain the primary code “NRN,” indicating non-registration database entries. NRN entries are used to ensure that examiner searches capture certain words and symbols that cannot be registered—such as symbols of federal agencies and foreign governments. We opted to leave these entries in **classification**, because they are significant to how the examination process works.

each class observation, there are date fields for *first use anywhere* and *first use in commerce*. Typically, these fields contain a full date, however, if the applicant does not report the month and/or day, zeros will appear in that portion of the field.¹⁹² There are also variables for the *number of international classes* and *U.S. classes* appearing.

Figure 30: Number of primary classes (total and live) per serial number.

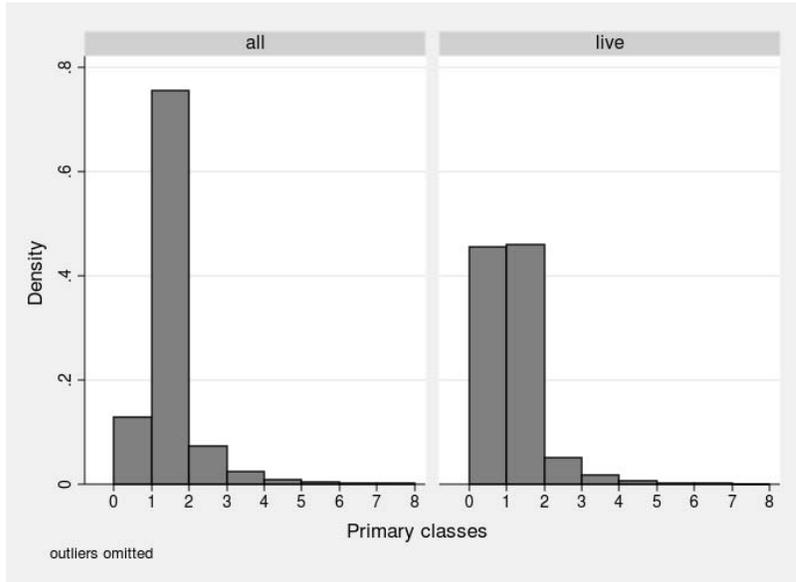


Figure 30 displays the distribution of *serial numbers* in the dataset by the number of *primary classes*. It includes the 858,135 *serial numbers* in **case_file** with no matching observations in the **classification** data file. For the 5.8 million *serial numbers* with observable **classification** data, the average number of *primary classes* per *serial number* is 1.24 (See Table 3). Accordingly, single class registrations and applications make up about 86.5 percent of *serial numbers* and 69.9 percent of *primary class* observations in **classification**. As indicated by Figure 30, most multiple class registrations and applications have two *primary class* observations. However, there are a small number of *serial numbers* registered or applied for registration in most or all 45 international classes.¹⁹³

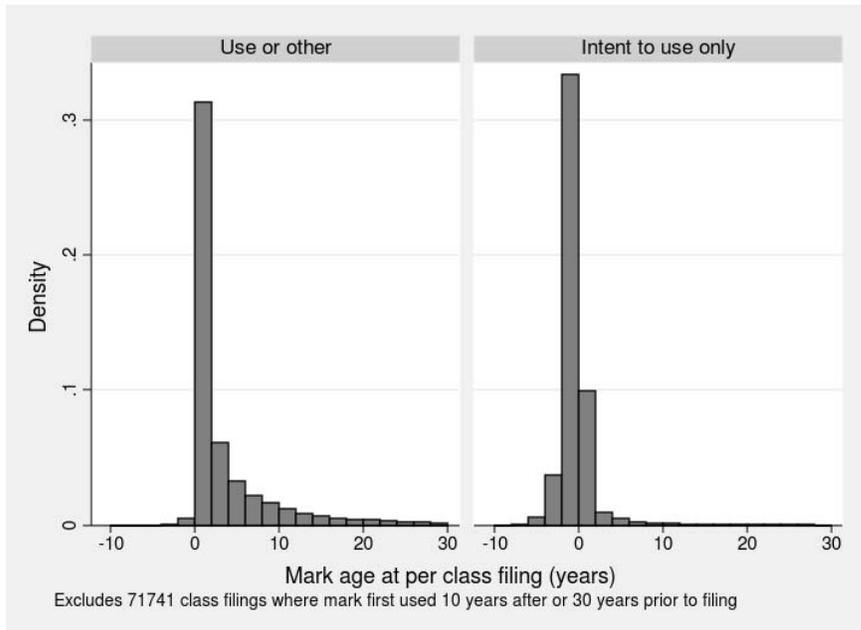
¹⁹² In the Stata DTA files, we include two separate variables for each *first use anywhere* and *first use in commerce*: a date format field and a character string field (designated with suffix “_raw”). The former will be missing values where zeros appear in the month and/or day portions of the date. There are 956,869 observations in **classification** missing values in the date format fields but a character string field populated.

¹⁹³ Note that the distinction between single and multiple class registrations may not be relevant for an individual mark. An owner can achieve the same protection for a mark through multiple single class registrations or one multiple class registration.

5.2.4.1 First use dates

Dates for *first use anywhere* and *first use in commerce* in the **classification** data file contain useful information on mark age and use over time. For much of the time period the data covers, an owner could not apply to register a mark until it was in use. Thus, for older applications filed based on use, the filing date will lag the first use date. This lag represents the mark’s age per class at filing. Figure 31 shows the distribution of **classification** observations by mark age at per class filing and legal basis at filing. We calculate mark age at per class filing using the month and year of first use in commerce and the month and year of filing date.¹⁹⁴

Figure 31: Mark age at per class filing (per first used in commerce)



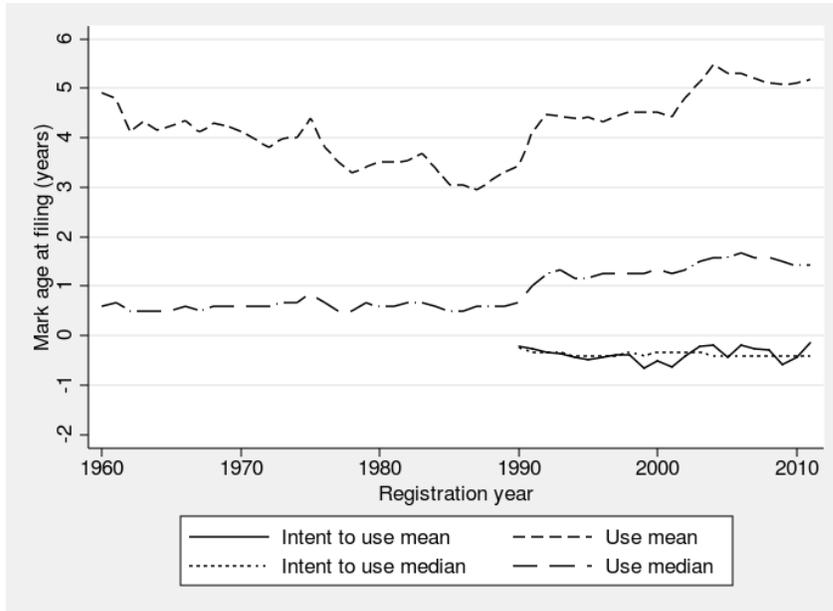
For applications filed based on use, the median age at per class filing is 1 year, but as evident in Figure 31, the age distribution is highly skewed. For applications filed based on intended use, first use in commerce will generally lag the filing date. Thus, first use dates for intent-to-use applications may convey potential valuable information regarding mark, as well as product, introduction. The median age at per class filing is -0.4, suggesting that most applicants establish use within a year of filing.

Figure 31 includes both registrations as well as abandoned or pending marks with both first use and filing dates populated. Figure 32 presents trends in the mean and median mark age at filing

¹⁹⁴ Using the month and year of *first use in commerce* allows for inclusion of 95.9 percent of **classification** observations with the field populated. It omits 181,728 observations with only the year or day and year included.

for only registrations over time. It shows an upward trend in the use mean and median, suggesting registration of marks longer established in the marketplace.

Figure 32: Mark age at per class filing (per date mark first used in commerce) by registration year



5.2.4.2 International class and U.S. class

There are two tertiary data files to **classification**. The **intl_class** and **us_class** data files contain observations for each Nice Class and U.S. Class, respectively, listed for each *primary class* observation in **classification**. Users should use *serial number* and *classification identification* to link observations between **classification**, **intl_class**, and **us_class** data files.

For most observations in the data, the *international class* in **intl_class** matches the *primary class* in **classification**. The values differ for about 5 percent of the observations in **classification**. These observations largely involve older registrations that retained their *U.S. classification* as the *primary class*. For these registrations, the **intl_class** data file will contain observations for the *international class(es)* equivalent to the *primary U.S. class*. Users should be aware that converting a *primary U.S. class* to the equivalent *international class* in **intl_class** can be problematic because there often are multiple *international classes* listed for a single *U.S. class*.

As discussed in Section 4.1.2.2, the USPTO maintains U.S. classification as a secondary system and continues to assign all applications a *U.S. class*. The **us_class** data file contains the *U.S. class* for older registrations classified under the domestic system as well as the *U.S. class* the USPTO assigned to more recent applications classified under the international system.

5.2.5 Statement

The **statement** data file contains various text statements that appear in the mark application or registration for about 5.8 million *serial numbers*. The *statement type code* indicates the general statement category. For example, a *statement type code* beginning with “GS” signifies a goods

and services identification statement, and the subsequent three characters designate the primary class (same as *primary code* in **classification**) that applies to that statement. Table 4 shows the frequency of observations in the data file by *statement type*.¹⁹⁵ Goods and services identifications are the most prevalent.

Table 4: Observations in statement data file by *statement type code*.

	(1)	(2)	(3)
	percent		mean per
	<i>statements</i>	<i>serial numbers</i>	<i>serial number</i> ¹
Goods and Services (GS)	0.611	0.999	1.238
Pseudo Mark (PM)	0.135	0.273	1.004
Disclaimer (D0 & D1)	0.112	0.226	1.000
Description of Mark (DM)	0.047	0.095	1.000
Colors Claimed/Description (CC & CD)	0.044	0.085	1.053
Translation of Words (TR)	0.015	0.031	1.003
Lining/Stippling Statement (LS)	0.013	0.026	1.000
Name/Portrait Description and/or Consent (N0)	0.008	0.016	1.000
Certificate of Correction for Registration (B0)	0.005	0.009	1.046
Amendment to a Registration/Renewal Certificate (A0)	0.002	0.005	1.054
In Another Form Statement (AF)	0.002	0.002	2.170
Section 2(f) Limitation Statement (TF)	0.002	0.005	1.000
Transliteration Statement (TL)	0.001	0.002	1.000
Certification Mark Statement (CS)	0.001	0.002	1.000
Concurrent Use Statement (CU)	0.000	0.001	1.009
Other ²	0.000	0.000	1.000
Observations	11,779,403	5,819,723	

1) Calculated only for unique *serial numbers* observable in the **statement** data file

2) Other includes *statement types*: Non Registration Information (NR); Order restricting scope or claim (OR); and TN (Transformation Information)

5.2.5.1 Goods and services identification

The **statement** data file contains a goods and services identification for each *primary class* observation in the **classification** data file. Accordingly, there are, on average, 1.24 goods and services identification observations in **statement** per *serial number*. Where feasible, data users may opt to use goods and services identifications rather than classes because they are mark owner defined, more specific, and less sensitive to revisions in the international classification system.

As discussed in Section 4.2, a registrant must file a §8 affidavit to avoid cancellation in the sixth year and every ten-year period after the registration date. If the §8 affidavit does not cover all

¹⁹⁵ See the Case File Statements Section of the TAD.

goods and services in the registration, it must specify the goods and services to be deleted from the registration. In the **statement** data file, any goods and services deleted from the registration will appear enclosed in brackets in the identification text.¹⁹⁶ For example, in the goods and services identification “[CHEWING GUM AND] CANDY,” the owner removed “CHEWING GUM” from the goods listed but maintained registration of the mark for use in connection with the sale of “CANDY”.¹⁹⁷

Since only a subset of goods was deleted, the registration remains live for the class so that no partial cancellation is recorded.¹⁹⁸ Consequently, the data does not indicate when an owner removed goods and services, only that they were removed. Separately enclosed goods and services may have been removed at different times during the life of the registration but there is no historical record of this in the dataset. For specific registrations, users may be able to identify the timing of removal by looking up the actual §8 affidavit on TSDR.

5.2.5.2 Other statements

As Table 4 indicates, the **statement** data file includes various statements we discuss throughout Section 4 of this document. It contains a “pseudo mark” for about 1.6 million *serial numbers*. For some marks with characters, the USPTO records a pseudo mark with spelling that is very similar or phonetically equivalent to the words in the mark. Pseudo marks are search tools examining attorneys use to identify marks with words similar in sound or appearance that are alternatively spelled or intentionally misspelled. Pseudo marks are administrative tools for examination only and have no legal significance. **Statement** also contains disclaimers for about 1.3 million *serial numbers*. Disclaimers will generally indicate any component of the mark that the owner disclaimed rights to at filing or through amendment during examination (see Section 4.1.4.3). There are also mark descriptions for about 0.6 million *serial numbers* in **statement**. Mark descriptions may be useful for identifying applications and registrations for untraditional marks, particularly sound or smell marks. Other potentially useful statements in the data file include descriptions of any color or lining claimed as elements of the mark, certification mark statements, and concurrent use statements.

5.2.6 Design_search

The **design_search** data file contains 3.7 million observations for each *design search code* assigned to 1.3 million unique *serial numbers*. The data file only includes *serial numbers* for marks that include a design element. There are 1,382 unique *design search codes* in the data file and, on average, 2.9 code observations per *serial number*. However, there are only 29 unique design categories and 155 unique design divisions. Table 5 presents the frequency of *design*

¹⁹⁶ The follow symbols indicate other amendments the registrant made to the goods and services identification: a) double parenthesis ((..)) identify any goods or services not claimed in a Section 15 affidavit of incontestability; and b) asterisks *.* identify additional (new) wording in the goods or services.

¹⁹⁷ U.S. Reg. No. 523876.

¹⁹⁸ If the owner had failed to file a §8 affidavit for the class entirely, the *registration cancellation code* in **case_file** would indicate a partial or complete cancellation under Section 8.

search code observations in **design_search** by category. There are about 837,000 *serial numbers* in the dataset for marks with a design element comprising of “Geometric figures and solids” (category 26). Most of these geometric designs fall into three divisions “Circles” (division 26.01), “Rectangles” (division 26.11), and “Lines, bands, bars” (division 26.17). The dataset also includes over 200,000 *serial numbers* for marks with designs depicting “Celestial bodies, natural phenomena, geographical maps” (category 1) and about 187,000 *serial numbers* for marks with designs of “Human beings” (category 2). Data users may find the **design_search** data file useful for identifying marks with specific design elements, particularly trade dress and other untraditional marks that cannot be easily identified from information in **case_file**.

Table 5: Observations in design_search data file by design search code Category

	(1)	(2)	(3)
	percent		mean per
	<i>design search codes</i>	<i>serial numbers</i>	<i>serial number</i> ¹
Category 26 Geometric figures and solids	0.470	0.663	2.091
Division 26.01 Circles	0.119	0.206	0.906
Division 26.11 Rectangles	0.070	0.206	0.803
Division 26.17 Lines, bands, bars	0.068	0.201	0.694
Category 2 Human beings	0.097	0.148	1.221
Category 3 Animals	0.073	0.116	0.986
Category 1 Celestial bodies, natural phenomena, geographical maps	0.069	0.159	0.570
Category 24 Heraldry, flags, crowns, crosses, arrows and symbols	0.057	0.130	0.612
Category 5 Plants	0.039	0.087	0.709
Category 27 Forms of writing	0.029	0.081	0.226
Category 7 Dwellings, buildings, monuments, stadiums, fountains, structural works and building materials	0.020	0.046	0.571
Category 6 Scenery	0.017	0.041	0.585
Category 4 Supernatural beings, mythological or legendary beings, fantastical beings or unidentifiable beings	0.013	0.032	0.528
Other	0.017	0.032	0.375
Observations	3,721,378	1,262,050	

1) Calculated only for unique *serial numbers* observable in the **design_search** data file

5.2.7 Prior_mark

The **prior_mark** data file includes an observation for each *prior mark registration* cited by an applicant. There are 0.8 million *serial numbers* in **prior_mark** for junior applications or registrations citing a *prior registration*. There are, on average, 2.1 *prior registration* (or pending application) observations per *serial number* in **prior_mark**. About 24.5 percent of the *serial numbers* in the data file include “and others” in list of *prior registrations*.

The *prior registration number* references the cited, senior registration. This field does include some *registration numbers* not observable in **case_file**. These registrations were presumably live when cited but not included in **case_file** because they expired or were cancelled prior to electronic recordkeeping. The field also includes some *serial numbers* for cited pending

applications. We observe some possible recordation error for the *prior registration number* field for junior registrations issued between 1981 and 1983. For these observations, the *prior registration number* appears to be recorded with a trailing zero. We added a *possible recording error* indicator field to **prior_mark** to notify users of the potential errors.

Figure 33: Registrations with zero, one, or more prior registrations listed by registration year

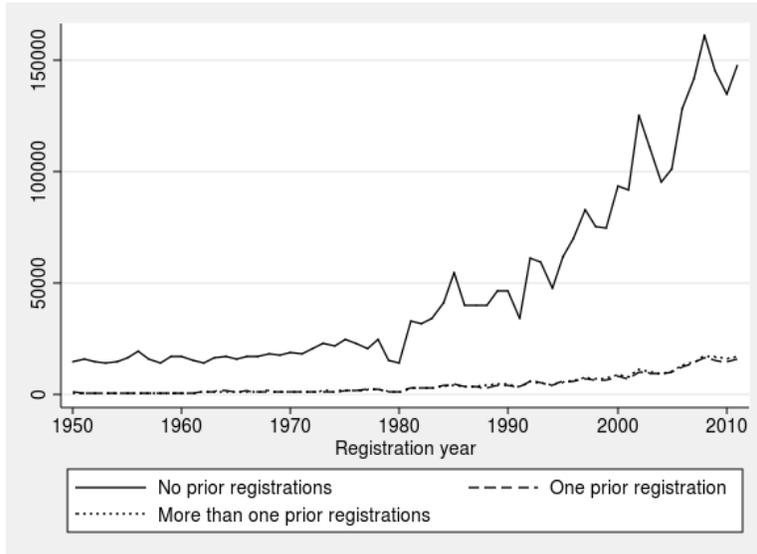
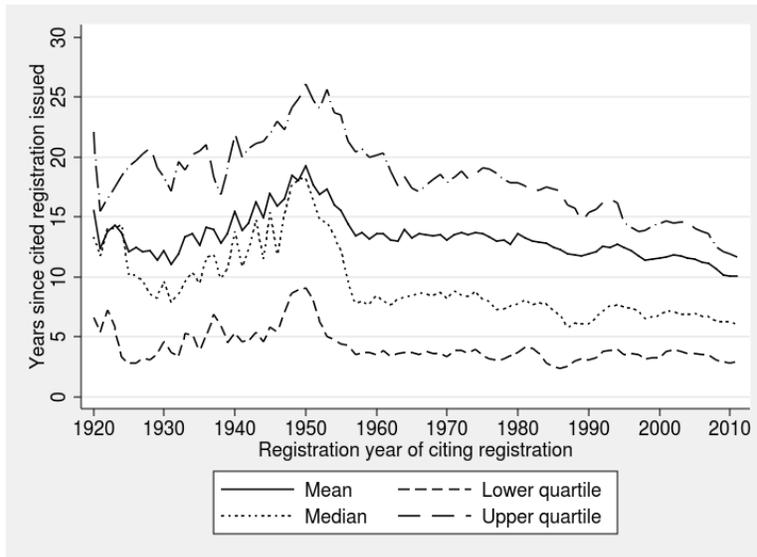


Figure 33 shows the number of registrations citing no or one or more prior registrations in their application by registration year. Registrations citing more than one prior registration includes those listing one prior registration with “and others” entered. The vast majority of newly issued registrations do not cite a prior registration. Such registrations do not necessarily involve novel marks, however, because it is not mandatory for applicants to list prior registrations (see Section 4.1.4.1). New registrations citing multiple prior registrations have outnumbered those citing only one since 1996. Together, registrations citing one or more prior registrations comprised about 18.3 percent of registrations issued in 2011.

Figure 34 displays the distribution of the age of prior registrations when cited by the issuance year of the citing registration. While data coverage is limited, Figure 34 shows a declining trend in the lag from registration to citation. Most registrations issued between 1960 and 1980 cite prior registrations issued in the previous 18 years. By contrast, most registrations issued since 1990 cite prior registrations issued within the previous 14 years. This may reflect the change in the renewal term from a twenty to ten year period in 1989. The median and lower quartile registration age at citation in Figure 34 does indicate that recent applicants tend to cite prior registrations that have yet to face a sixth year maintenance or ten-year renewal event.

Figure 34: Registrations age when cited



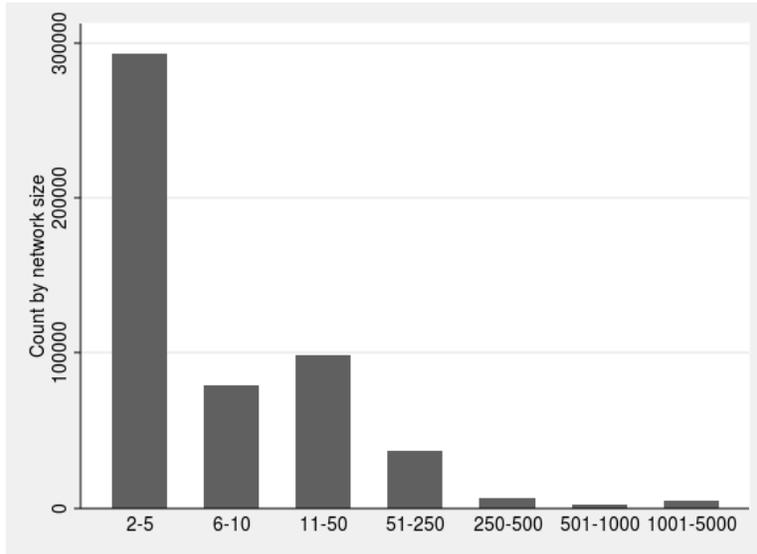
Since citation of a prior registration requires common ownership, data users may potentially use the **prior_mark** data file to identify related marks. However, users should be cautious about relying solely on prior registration citations. Claims of prior registrations are used for administrative purposes only and have no legal significance regarding the scope of trademark protection. Since citation of prior registrations or pending applications is not mandatory, users need to account for potential selection bias. Citation may be an indication of value as well as learned behavior by applicants seeking to streamline examination. Furthermore, common ownership can only be assumed at the time of citation. Changes in ownership over time complicate linking registrations based on citation. We attempted to build groups or networks of related mark registrations using all possible links in **prior_mark**. We assume registrations are in the same network if connected through any set of intervening registrations.¹⁹⁹ We constructed networks using all *serial numbers* present in the dataset but report network size for only live registrations and pending applications.

About 76.1 percent of the 2.2 million live registrations and pending applications in the data do not cite a prior registration and are not cited by a subsequent registration. This is expected as younger registrations make up the vast majority of live registrations and are less likely to be cited. Figure 35 shows the distribution of live registrations and pending applications that do cite or are cited by network size. The vast majority of *serial numbers* are in a network of two to five total registrations and applications. About 79,000 *serial numbers* fall into a network of size six to ten. The largest network in the data contains 4,665 *serial numbers* for live registrations and pending

¹⁹⁹ For example, if registration G cites prior registrations E and F, and registration E cites registrations B and C, the network would include registrations B, C, E, F, and G. If registration B cites registration A, the network would include registrations A, B, C, E, F, and G.

applications. The existence of this large network highlights the potential errors that may arise in relying solely on citations to link registrations. Upon reviewing the *mark identifying characters* and *owner names*, we construe this large family to be a thicket of multiple families likely connected in error.

Figure 35: Live registration or pending application count by network size



5.2.8 Foreign priority applications

Under the Paris Convention, trademarks can claim priority to foreign applications. The **foreign_app** data file contains information on 293,137 *serial numbers* that claimed priority to 316,702 *foreign applications*. For each *foreign application* observation, **foreign_app** includes the *application country of origin*, *foreign application number* and *filing date*, *foreign registration number*, *date* and *expiration date*, and *foreign renewal number*, *date* and *expiration date*.²⁰⁰

5.2.9 International registrations

The **madrid_intl_file** and **madrid_event** data files track the international filing history of marks registered under the Madrid system. There are 30,878 unique *serial numbers* in each data file. The **madrid_intl_file** data file contains information on the 30,878 *serial numbers* in the dataset with Madrid international filing records. Each observation in **madrid_intl_file** includes the *international registration number*, *registration date* and *renewal date*, *sequence*, *IB registration status code* and *date*, and *USPTO filing date* and *reference number*.²⁰¹ There is also a unique *identification* field that users should use to link observations in **madrid_intl_file** to **madrid_event**.

²⁰⁰ See the Foreign Applications Section of the TAD.

²⁰¹ See the Madrid International Filing Requests Section of the TAD.

The **madrid_event** data file contains the Madrid international processing event history for each observation in **madrid_intl_file**. Similar to the **event** data file, **madrid_event** contains an *event code*, *date*, and *sequence order* for each processing event. There are 62 unique values for *event code* in **madrid_event**. Common *event codes* in the data file indicate the reception of a new application for international registration and registration by the IB.²⁰²

5.2.10 Data file generation

The **tm_app_daily** data file contains information about the generation of original XML daily files. The *creation date* field indicates the date the file generation process was executed. The daily files were generated over multiple days from January 9, 2012 to January 12, 2012.

6 Conclusion

In the past, trademark data have been used only to a limited extent by the empirical researchers. The widespread availability of administrative trademark data presents new research opportunities for important questions in economics, management, and innovation policy. In order to make these data useful, it is important to not only provide them in an easily accessible manner, but also to provide a description of the institutions and rules that guide the creation of these data. This paper is intended as a first step to lower the costs and barriers to using these data. We encourage a new stream of research on the use of trademarks and what they indicate about their users, the strategies under which they are employed, and the wider economic impacts that these data are able to help uncover.

7 References

- Beebe, B. 2006. "An Empirical Study of the Multifactor Tests for Trademark Infringement." *California Law Review*. Vol. 94(6), pp. 1581-1654.
- Cain, C. P., ed. 2011. *Trademark Manual of Examining Procedure*. 8th ed. United States Patent and Trademark Office, October. <http://tess2.uspto.gov/tmdb/tmep/>.
- Ceccagnoli, M., S. J. H. Graham, M. Higgins, and J. Lee (2010). "Productivity and the Role of Complementary Assets in Firms' Demand for Technology Innovations." *Industrial and Corporate Change*. Vol. 19(3), pp. 839-869.
- Ferreira, V., and M. Godinho. 2011. "Building an Innovation Function with Patents and Trademarks: Evidence from Portuguese Regional Innovation Systems." DRUID working paper series.

²⁰² See Table 6 of the TAD for a full listing of Madrid international processing history event codes and descriptions.

- Gotsch, M., and C. Hipp. 2011. "Measurement of Innovation Activities in the Knowledge-Intensive Services Industry: A Trademark Approach." Fraunhofer working paper.
- von Graevenitz, G. 2007. "Which Reputations Does a Brand Owner Need? Evidence from Trade Mark Opposition." Mimeo. <http://ideas.repec.org/p/trf/wpaper/215.html>.
- Greenhalgh, C., M. Rogers, P. Schautcheck, and V. Sena. 2011. *Trademark Incentives*. UK Intellectual Property Office
- Heimonen, T. (2012). "What are the factors that affect innovation in growing SMEs?" *European Journal of Innovation Management*, Vol. 15(1), pp.122-44.
- Krasnikov, A., and S. Mishra, and David Orozco. 2009. "Evaluating the Financial Impact of Branding Using Trademarks: A Framework and Empirical Evidence." *Journal of Marketing*, Vol. 73(6), pp. 154-66.
- Landes, W. M., and R. A. Posner. 1987. "Trademark law: an economic perspective." *Journal of Law and Economics*, Vol. 30(2), pp. 265–309.
- Millot, V. 2009. "Trademarks as an Indicator of Product and Marketing Innovations." OECD Science, Technology and Industry Working Papers. <http://dx.doi.org/10.1787/224428874418>.
- . 2011. "Firms' Intangible Assets: Who Relies on Trademarks? Analysis of French and German Firms' Trademarking Behaviour." DRUID working paper.
- Port, K. L. 2008. "Trademark Extortion: The End of Trademark Law." *Washington and Lee Law Review*, Vol. 65, pp. 585-637.
- Sandner, P. G. 2009. "The Valuation of Intangible Assets: An Exploration of Patent and Trademark Portfolios." Mimeo.
- Sandner, P. G., and J. Block. 2011. "The Market Value of R&D, Patents, and Trademarks." *Research Policy*, Vol. 40 (7), pp. 969-985. doi:10.1016/j.respol.2011.04.004.
- Schechter, F. I. 1927. "The Rational Basis of Trademark Protection." *Harvard Law Review*, Vol. 40(6), pp. 813–833.
- Schmoch, U., and S. Gauch. 2009. "Service Marks as Indicators for Innovation in Knowledge-Based Services." *Research Evaluation*, Vol. 18(4) pp. 323-35.
- Smith, G. V. 1996. *Trademark Valuation*. Wiley.
- Somaya, D., and S. J. H. Graham. 2006. "Vermeers and Rembrandts in the Same Attic: Complementarity Between Copyright and Trademark Leveraging Strategies in Software." SSRN working paper. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=887484.

The USPTO Trademark Case Files Dataset

Stolte, K. M. 1997. "How Early Did Anglo-American Trademark Law Begin - An Answer to Schechter's Conundrum." *Fordham Intellectual Property, Media & Entertainment Law Journal*, Vol. 8, pp. 505-547.

United States Patent and Trademark Office. 2005. *Trademark Applications Documentation*.
<http://www.uspto.gov/web/offices/ac/ido/oeip/sgml/st32/trademark/TDXFDTDs.html>.

———. 2012. *Acceptable Identification of Goods and Service Manual (ID Manual)*.
<http://tess2.uspto.gov/netahtml/tidm.html>.

Wilkins, M. 1992. "The Neglected Intangible Asset: The Influence of the Trade Mark on the Rise of the Modern Corporation." *Business History*, Vol. 34(1), pp. 66-95.