United States Patent and Trademark Office

PERFORMANCE AND ACCOUNTABILITY REPORT





FINANCIAL AND RELATED HIGHLIGHTS						
(Dollars in Thousands)	% Change 2021 over 2020	For the Year Ended September 30, 2021		For the Year Ended September 30, 2020		
Fund Balance with Treasury	1.9%	\$ 2,790,547		\$	2,739,700	
Property, Plant, and Equipment, Net	5.3%		355,843		337,983	
Other Assets	(24.0%)		44,124		58,089	
Total Assets	1.7%	\$	3,190,514	\$	3,135,772	
Advances from Others and Deferred Revenue	21.0%	\$	1,250,318	\$	1,033,073	
Accounts Payable	34.4%		141,467		105,256	
Accrued Payroll, Benefits, and Leave	5.1%		359,837		342,475	
Other Liabilities	(13.4%)		147,586		170,447	
Total Liabilities	15.0%	\$	1,899,208	\$	1,651,251	
Net Position	(13.0%)		1,291,306		1,484,521	
Total Liabilities and Net Position	1.7%	\$	3,190,514	\$	3,135,772	
Total Earned Revenue	(7.5%)	\$	3,384,463	\$	3,657,051	
Total Program Cost	0.1%		(3,627,437)		(3,622,969)	
Net (Cost)/Income from Operations	(812.9%)	\$	(242,974)	\$	34,082	
Budgetary Resources Available for Spending	3.5%	\$	4,406,096	\$	4,257,572	
Total Collections, Net	(71.5%)	\$	(75,641)	\$	(265,205)	
Federal Personnel	0.3%		12,963		12,928	
On-Time Payments to Vendors	-%		99%		99%	

PERFORMANCE HIGHLIGHTS					
Performance Measures	FY21 Target	FY21 Actual	Performance Results*		
Total PTA Compliance - Mailed Actions	84%	83%	Red		
Total PTA Compliance - Remaining Inventory	86%	86%	Green		
Trademark Average First Action Pendency (months)	4.5	6.3	Red		
Trademark Average Total Pendency (months)	12.0	11.2	Green		
Trademark First Action Compliance Rate	95.5%	96.3%	Green		
Trademark Final Compliance Rate	97.0%	98.7%	Green		
Exceptional Office Action	50.0%	54.1%	Green		
Percentage of prioritized countries for which intellectual property (IP) country teams have made progress on at least 3 of the 4 performance criteria: a. Institutional improvements of IP office administration for advancing IP rights; b. Institutional improvements of IP enforcement entities; c. Improvements in IP laws and regulations; d. Establishment of government-to-government cooperative mechanisms	66%	100%	Green		
Number of people, including Foreign Government Officials and U.S. Stakeholders, trained on best practices to protect and enforce IP	5,000	17,841	Green		

 $^{^{\}star}$ The performance result of a given measure is either met (100% or greater of target), or not met (99.9% or below of target).

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Andrew Hirshfeld

THE USPTO MISSION

Fostering innovation, competitiveness, and job growth in the United States by conducting highquality and timely **Patent and Trademark** examination and review proceedings in order to produce reliable and predictable intellectual property rights, guiding intellectual property policy and improving intellectual property rights protection, and delivering intellectual property information and education worldwide.

Message from Andrew Hirshfeld, Performing the Functions and Duties of the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office

Despite the continuing impacts of the global pandemic, the United States Patent and Trademark Office (USPTO) was extremely busy and productive during fiscal year (FY) 2021. Patent application filings at the USPTO remained strong, finishing the year on an upward trajectory. Meanwhile, trademark application filings experienced an unprecedented surge in FY 2021, driven in part by the growth of e-commerce and the desire among more Americans to develop new products and start new companies.

Patent application filings exceeded 650,000, and trademark application filings for all classes surpassed 943,000, a record high. The vast majority of our 12,963 employees continued to work remotely through our secure, high-speed networks, and they were able to interact with more than 1.1 million clients and customers over the course of the fiscal year.

On September 16, 2021, the USPTO celebrated the 10th anniversary of the Leahy-Smith America Invents Act (AIA) of 2011. The AIA made several important changes to U.S. patent law, including implementing a first-to-file system for determining a patent's priority date and establishing the Patent Trial and Appeal Board (PTAB) to hear post-issuance challenges to patents as a more affordable and streamlined alternative to district court patent litigation. The anniversary of the AIA also celebrates the establishment of the USPTO's regional offices, which have been instrumental in providing our customers and the public with essential, innovation-related services. The expert staff at these offices help regions across the country upgrade their intellectual property (IP) infrastructure, and they spread the benefits of innovation to communities located far from USPTO headquarters and the technology hubs in the country.

In FY 2021, we made additional strides in patent timeliness. Our customer satisfaction ratings regarding patent quality have never been higher, thanks to the dedication and training of our staff, the continuous evaluation and optimization of our operations, and the introduction of groundbreaking information technology (IT) to assist in every aspect of examination. This year, we continued a decade-long trend of improvement in patent application pendency and started tracking it by measuring Patent Term Adjustment (PTA), our overall adherence to statutorily defined time frames. This tracking method provides a more refined description of pendency that measures the USPTO's consistency in meeting these time frames, an indication not provided by traditional pendency metrics. We met these time frames in 83% of all office actions mailed in FY 2021 and maintained an average total pendency of 23.3 months, consistent with last fiscal year. Average first action pendency, a traditional pendency metric, increased by over 2 months since last fiscal year, due in large part to side effects of the COVID-19 pandemic on the agency, such as the provision of

additional leave flexibilities to our employees for COVID-19 related situations and a decline in the use of overtime. As we continue to focus on PTA timeframes, we will ensure that the oldest applications are addressed, which we anticipate will negatively affect average first action pendency during FY 2022. We are also evaluating whether further adjustments to examination time may benefit patent quality, and these adjustments may also increase average first action pendency.

The USPTO responded quickly and proactively to the June 21, 2021, U.S. Supreme Court decision in the *United States v. Arthrex, Inc.* case regarding the constitutionality of the agency's administrative patent judges (APJs). Our interim procedures for providing parties a mechanism for requesting Director review of PTAB final decisions in inter partes reviews and post-grant reviews were posted almost immediately after the Supreme Court decision was announced. We invited patent practitioners and the public to provide their input on these interim procedures and were quick to adopt changes. We will continue to refine the procedures as we gain experience with Director reviews of PTAB decisions.

This year also marked the 75th anniversary of the Lanham (Trademark) Act of 1946, which created our national system of trademarks that protects brands and consumers. At two events during the summer, the USPTO, along with industry partners, members of Congress, Secretary of Commerce Gina Raimondo, and other distinguished guests, celebrated the important role the Lanham Act has played in helping business owners build and protect strong national and global brands.

In addition to celebrating this significant milestone, our Trademarks organization developed new rules for implementing the Trademark Modernization Act (TMA) of 2020. This act provides business owners with additional tools to help clear the federal Trademark Register of unused marks, and it enables the USPTO to move applications through the system more efficiently. In the spring of 2021, we held three public roundtables to gather feedback on proposals for new rules to implement the procedures required by the new law, and offered a comment period for stakeholder input on the proposed rules. These events provided us with valuable information that helped to shape the final decisions on the implementation of the act.

As mentioned, trademark filings surged to unprecedented levels through the first half of the fiscal year before gradually subsiding to a more normal pace through the late spring and summer months. The overall 30% increase in filings for FY 2021 resulted in a delay in processing times for applications. We are addressing the backlog created by the surge by hiring and training 73 new trademark examining attorneys, and

THE USPTO VISION

Leading the nation and the world in intellectual property support staff to help process the applications. We are also identifying and deploying IT solutions to increase efficiencies in key areas. We continue to explore additional ways to respond to the dramatic increase in filings experienced in FY 2021, and deliver on our goal of providing timely and high-quality examination.

Regarding our overall finances, following a tumultuous FY 2020, the USPTO's finances stabilized in FY 2021. This stabilization will lessen cash-flow stresses in the year ahead. As described later in the financial section of this report, our revenues remained steady in Patents and increased in Trademarks. We have strong and healthy reserves in both accounts.

We are confident that the USPTO's financial and performance data are complete, reliable, accurate, and consistent. For the 29th consecutive year, the USPTO earned an unmodified (i.e., clean) audit opinion on its annual financial statements, giving the public independent assurance that the agency's financial information is presented fairly and follows generally accepted accounting principles. The independent auditors also reported no material weaknesses or significant deficiencies, or instances of noncompliance with laws or regulations during the FY 2021 financial reporting period.

In addition, we continue to upgrade our IT systems to ensure uninterrupted service to tens of thousands of internal and external users. We have moved major applications off proprietary platforms and onto the cloud. We are expanding bandwidth and establishing secure connectivity to multiple databases and systems.

We are also augmenting the backup of all our critical databases and are engaged in ongoing tests of the disaster recovery mechanisms for systems crucial to operations. These efforts will increase reliability and security and decrease costs associated with the massive IT requirements of our staff and the public.

We are modernizing patent filings as well by transitioning to the use of the DOCX format and implementing the new Patent Center. These developments will enable more streamlined, less technically cumbersome examination, improved application quality and efficiency, increased data quality, smarter interfaces, and stronger security.

As the world's leading IP agency, the USPTO is also spearheading the promotion of innovation among the nation's current and future inventors. We offer numerous educational and outreach programs that aim to expand participation in the innovation ecosystem by engaging with students, teachers, parents, and mentors in diverse communities. In partnership with the National Inventors Hall of Fame, these programs reached more than 200,000 K-12 students and 23,000 teachers in FY 2021. We view these programs as essential to the future competitiveness and prosperity of our country. They complement the nation's focus on expanding science, technology, engineering, and mathematics (STEM) education, and help provide the underpinnings for a healthy, national IP system that encourages invention, innovation, and entrepreneurship.

On the international front, we continue to work on global IP harmonization. Over the past year, we established worksharing agreements with Mexico and Cambodia and signed a memorandum of understanding with India to cooperate on a number of activities pertaining to securing, using, and enforcing IP rights. Our Office of Policy and International Affairs also continues working with China to implement better IP protections for trade secrets and patents in accordance with the Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China (Phase One), signed on January 15, 2020.

In response to administration priorities set by the President, the USPTO established the Economic Relief Working Group, Climate Working Group, and Equity Working Group. The working groups consist of employees from across the USPTO and assist with facilitating the nation's economic recovery, tackling the climate crisis, and increasing access to the IP ecosystem for all. The working groups are committed to carrying out the directives of the Executive Orders (EOs) by identifying key areas of improvement; recommending actions; and helping to implement changes via policies, programs, and initiatives. One of the working groups' significant accomplishments was a redesign of the Inventor and entrepreneur resources and Patent basics webpages. These, serve as busy hubs of USPTO resources and information and provide centralized access to a variety of USPTO products and services as well as an orientation to the full patent and trademark application processes. The USPTO.gov website had more than 13 million unique users in FY 2021.

As the nation's innovation agency, we embrace our constitutional role in making the patent and trademark systems more effective for all people seeking to protect their valuable IP. We honor the dedication of every member of our staff to our essential mission. We look forward to the innovations of future inventors and entrepreneurs, and we remain devoted to serving them and the American public, whose lives are enhanced so richly by these advancements.

Andrew Hirshfold

Performing the Functions and Duties of the Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office

November 5, 2021



WHO WE ARE

The USPTO is the federal agency for granting U.S. patents and registering trademarks. In doing this, the USPTO fulfills the mandate of Article I, Section 8, Clause 8 of the Constitution, which grants the legislative branch the power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." The USPTO registers trademarks based on the Commerce Clause of the Constitution (Article I, Section 8, Clause 3). Under this system of protection, American industry has flourished. New products have been invented, and new uses for old products have been discovered. Both of these actions have created employment opportunities for millions of Americans. The strength and vitality of the U.S. economy depends directly on effective mechanisms that protect new ideas and investments in innovation and creativity. The continued demand for patents and trademarks underscores the ingenuity of American inventors and entrepreneurs and positions the USPTO at the cutting edge of the nation's technological progress and achievement.

The USPTO advises the President of the United States, the Secretary of Commerce, and U.S. government agencies on (IP)¹ policy, protection, and enforcement and promotes stronger and more effective IP protection around the world by working with other agencies to secure strong IP provisions in free trade and to enact international agreements. The USPTO also provides training, education, and capacity-building programs designed to foster respect for IP and encourage the development of strong IP enforcement regimes among U.S. trading partners.

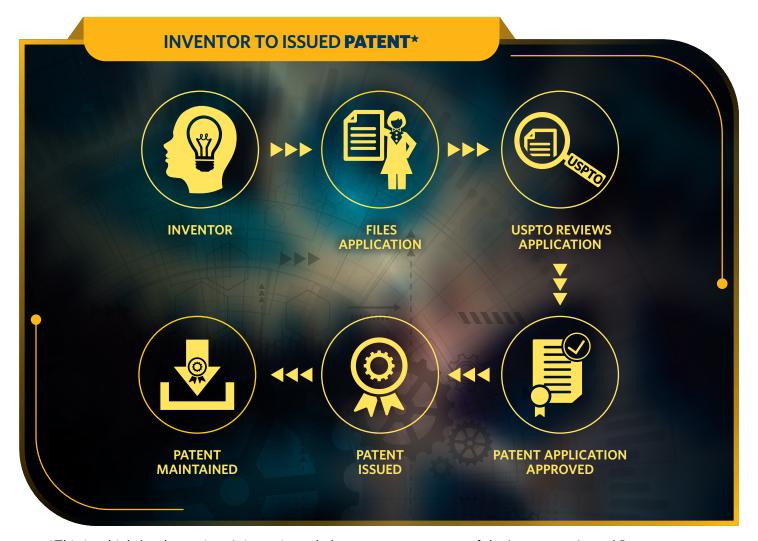
In the United States, there are four basic types of IP rights: patents, trademarks, copyrights, and trade secrets. What follows is a brief description of each type. The USPTO is responsible for patents and trademarks. Its IP policy work, however, encompasses all IP, including copyrights and trade secrets.

PATENTS	(R) TM TRADEMARKS	COPYRIGHTS	TRADE SECRETS
rights to exclude others from making, using, or selling a Utility, Design, or Plant invention.	GRANTS exclusive use to any word, phrase, symbol, or design used to distinguish you from your competitors.	GRANTS protection for original works—books, music, research, and other forms of creative expression.	GRANTS provides rights for information that has either actual or potential economic value by virtue of not being generally known.
TERM Design: 14 Years Utility: 20 Years	TERM 10 Years	TERM 70 Years After Author's Death	TERM Continuous

A patent for an invention represents the granting of a property right to the inventor by the USPTO. Generally, the term of a new patent is 20 years from the date on which the application for the patent was filed in the United States or, in special cases, from the date an earlier, related application was filed, subject to the payment of maintenance fees. U.S. patent grants are effective only within the United States,

¹ Intellectual property (IP) refers to the intangible assets of a business or inventor. IP may include products and services as well as any symbols, logos, words, or phrases that are characteristic of those products or services.

WHAT WE DO



*This is a high-level overview. It is not intended to capture every step of the Inventor to Issued Patent process.

U.S. territories, and U.S. possessions. Under certain circumstances, Patent Term Extensions (PTEs) or adjustments (PTAs) may be available. The right conferred by the patent grant is, in the language of the statute and of the grant itself, "the right to exclude others from making, using, offering for sale, or selling" the invention in the United States or "importing" the invention into the United States. What is granted is not the right to make, use, offer for sale, sell, or import, but the right to exclude others from making, using, offering for sale, selling, or importing the invention. Once a patent has been issued, the patentee must enforce the patent without the aid of the USPTO.

There are three types of patents:

- Utility patents may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter or any new and useful improvement thereof.
- 2. **Design patents** may be granted to anyone who invents a new, original, and ornamental design for an Article of Manufacture.
- 3. **Plant patents** may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.

8

WHAT WE DO (CONTINUED)



*This is a high-level overview. It is not intended to capture every step of the Business Owner to Registered Trademark process.

The application and maintenance procedures for patents and general information concerning patents can be found at **Patent basics**.

A trademark is a word, name, symbol, device, or any combination thereof, that is used in trade with goods to indicate the source of the goods and to distinguish them from the goods of others. A service mark is the same as a trademark, except that it identifies and distinguishes the source of a service rather than a product. The terms "trademark" and "mark" are commonly used to refer to both trademarks and service marks.

Trademark rights can prevent others from using a confusingly similar mark, but not from making the same goods or from selling the same goods or services under a clearly different mark. Trademarks that are used in interstate or foreign commerce may be registered with the USPTO. The registration procedure for trademarks and general information concerning trademarks can be found at <u>Trademark basics</u>.

MISSION-FOCUSED STRATEGIC GOALS

Goal I

Optimize Patent
Quality and Timeliness

Goal II:

Optimize Trademark
Quality and Timeliness

Goal III:

Provide Domestic and Global Leadership to Improve Intellectual Property Policy, Enforcement, and Protection Worldwide

Mission Support Goal:

Deliver Organizational Excellence

Copyright is a form of protection provided to the authors of "original works of authorship," including literary, dramatic, musical, artistic, and certain other intellectual works, both published and unpublished. The 1976 Copyright Act generally gives the owner of a copyright the exclusive right to reproduce the copyrighted work, to prepare derivative works, to distribute copies or phono records of the copyrighted work, to perform the copyrighted work publicly, or to display the copyrighted work publicly. The copyright protects the form of expression rather than the subject matter of the writing. For example, a description of a machine could be copyrighted, but this would only prevent others from copying the description; it would not prevent others from writing a description of their own or from making and using the machine. Copyrights are registered by the U.S. Copyright Office, a department of the Library of Congress.

A trade secret is information that has either actual or potential independent, economic value by virtue of not being generally known has value to others who cannot legitimately obtain the information, and is subject to reasonable efforts to maintain its secrecy. All three elements are required; if any element ceases to exist, then the trade secret will also cease to exist. Otherwise, there is no limit on the amount of time a trade secret is protected.

ABOUT THIS REPORT

The USPTO's Performance and Accountability Report (PAR) provides information on the agency's programmatic and financial performance for FY 2021. This report demonstrates to Congress, the Administration, and the public the USPTO's efforts to promote transparency and accountability over the resources entrusted to the agency. This report is available on the USPTO's website and satisfies the reporting requirements contained in the following legislation:

- 35 U.S. Code (U.S.C.) § 13;
- Federal Managers' Financial Integrity Act (FMFIA) of 1982;
- Chief Financial Officers Act of 1990;
- Government Management Reform Act of 1994;
- Federal Financial Management Improvement Act (FFMIA) of 1996;
- Reports Consolidation Act of 2000;
- Accountability of Tax Dollars Act of 2002;
- Government Performance and Results Act (GPRA) Modernization Act of 2010;
- Leahy-Smith AIA of 2011;
- Study of Underrepresented Classes Chasing Engineering and Science Success (SUCCESS) Act of 2018;
- Payment Integrity Information Act of 2019

The USPTO's program and financial performance is summarized in the <u>USPTO</u> <u>Citizen Centric Report</u>, typically published at the beginning of the calendar year and available on the USPTO website.

CONTRIBUTORS

The financial and programmatic performance information presented in this report reflects the joint effort of the Office of the Under Secretary and Director (OUS), the Patents organization, the Trademarks organization, the Office of Policy and International Affairs (OPIA), the Patent Trial and Appeal Board (PTAB), the Trademark Trial and Appeal Board (TTAB), the Office of the Chief Information Officer (OCIO), the Office of the Chief Administrative Officer (OCAO), the Office of Equal Employment Opportunity and Diversity (OEEOD), the Office of the Chief Communications Officer (OCCO), the Office of the General Counsel (OGC), the Office of the Ombudsman, and the Office of the Chief Financial Officer (OCFO).

CERTIFICATE OF EXCELLENCE IN ACCOUNTABILITY REPORTING

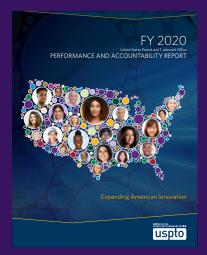
The Association of Government Accountants (AGA) awarded the USPTO the Certificate of Excellence in Accountability Reporting (CEAR®) for its FY 2020 PAR. In addition, the USPTO received a "Best in Class" award for its summary of financial and performance highlights. The AGA highlighted certain areas of the report in particular.

For example, the AGA said the report provided a high-quality summary of the USPTO's financial and mission performance. It also said the report was timely, and the agency received an unmodified audit opinion on the financial statements.

In addition, the AGA said the report integrated noteworthy features—including new, innovative, and best practices—that helped support full disclosure, transparency, and accountability. Examples of noteworthy features included:

- 1. Prominent, clear, concise, one-page financial and performance highlights
- 2. Concise, specific report contributions and acknowledgments
- 3. Prominent report contributor recognition and an invitation to provide feedback
- 4. Useful web index and links
- 5. Clear, concise, three-page performance summary
- 6. Simple, succinct funding diagram
- 7. Prominent, concise explanation of key mission areas
- 8. Focused pursuit of expanded patent system participation
- 9. Professional, visually appealing graphics and color scheme information
- 10. Responsiveness to the prior year's CEAR® recommendations

The CEAR® program was established in collaboration with the Chief Financial Officers Council and the U.S. Office of Management and Budget (OMB) to improve accountability by streamlining reporting and improving the effectiveness of such reports so they clearly show both what an agency accomplished with taxpayer dollars and the challenges that remain.







YOUR GUIDE TO USING THIS REPORT

This report is organized into four major sections, plus an appendix of major terms, a glossary, and a Uniform Resource Locator (URL) index.

MANAGEMENT'S DISCUSSION AND ANALYSIS SECTION

This section provides an overview of the USPTO's organization, mission, and strategic framework. A summary of significant case law developments, the agency's FY 2021 programs, and its financial performance are also provided, along with management's assessment of the USPTO's challenges and its assurances on the USPTO's internal controls.

PERFORMANCE INFORMATION SECTION

This section details the USPTO's performance accomplishments relative to its strategic plan, as required by OMB Circular A-11, Preparation, Submission, and Execution of the Budget. It identifies the USPTO's key and supporting performance metrics and presents results achieved under the strategic goals and objectives. In addition, it contains an overview of how the performance data is verified and validated.

FINANCIAL SECTION

A message from the USPTO's Chief Financial Officer (CFO) opens this section, followed by the agency's audited financial statements, accompanying notes, and required supplementary information, as well as the independent auditors' report.

OTHER INFORMATION SECTION

This section provides the top management challenges the USPTO faces, as identified by the Inspector General (IG); a summary table of financial statement audit and management assurances; information on the agency's efforts to eliminate improper payments; information on the USPTO's real property portfolio; a discussion of matters related to the Federal Civil Penalties Inflation Adjustment Act of 1990 as well as other administrative updates; and reporting requirements under USPTO legislation (the Nature of Training Provided to USPTO Examiners and FY 2021 Workload Tables).

APPENDIX OF MAJOR TERMS

This brief appendix describes major terms like IP, patents, and trademarks.

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

The glossary lists and defines the acronyms used throughout this report.

URL INDEX

Those reading a printed version of the USPTO FY 2021 PAR can find the underlined text items in the URL Index on page 250. The index provides full web addresses for all hyperlinks included in the PAR.



MISSION AND ORGANIZATION OF THE USPTO

The USPTO is a government agency with a strong commitment to delivering its mission to foster innovation, competitiveness, and job growth in the United States by enabling individuals and entities to generate tangible economic benefits by creating, inventing, and branding. In the United States, patents (utility, plant, and design), trademarks, copyrights, and trade secrets are the principal means for establishing ownership rights.

In today's challenging and competitive global economy, the USPTO's role in protecting America's IP remains critical to American competitiveness and economic success internationally. The high demand for the USPTO's patent- and trademark-related products and services illustrates the immense value of IP protection in the United States. Since 2000, patent application filings from domestic and foreign entities have more than doubled. In the same time frame, the number of trademark application filings from U.S. residents has almost doubled, and filings from foreign entities have increased over 500%. As an agency of the U.S. Department of Commerce (DOC), the USPTO supports the Department's mission to create conditions conducive to economic growth by promoting innovation, entrepreneurship, competitiveness, and stewardship. The USPTO also supports DOC's goal of accelerating American leadership by strengthening IP protection and U.S. economic and national security.

OUR GOALS

MISSION-FOCUSED STRATEGIC GOALS

GOAL I: Optimize Patent Quality and Timeliness

GOAL II: Optimize Trademark Quality and Timeliness

GOAL III: Provide Domestic and Global Leadership to Improve IP Policy,

Enforcement, and Protection Worldwide

MISSION SUPPORT GOAL

Deliver Organizational Excellence

OUR ORGANIZATION

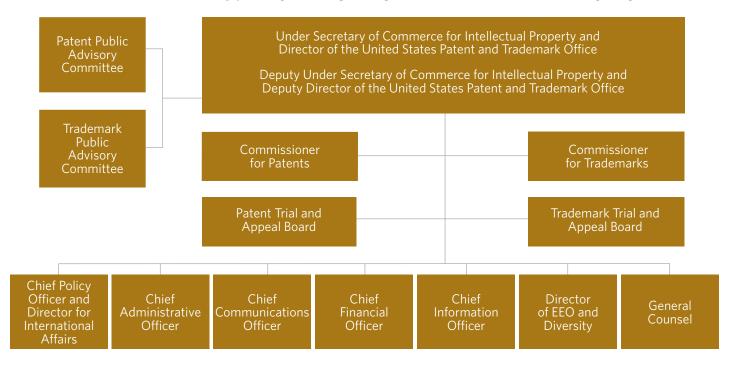
As shown in Figure 1, the Under Secretary of Commerce for IP and Director of the USPTO leads the agency. The Patent Public Advisory Committee (PPAC) and the Trademark Public Advisory Committee (TPAC) advise the Under Secretary. The USPTO is composed of two primary business lines: Patents and Trademarks. OPIA spearheads the USPTO's policy and international work. The USPTO also has other units supporting functions like IT; human resources; financial, legal, and administrative services; equal employment opportunity; and communications. Headquartered in Alexandria, Virginia, the USPTO has four regional offices, as seen in Figure 2.

- The Texas Regional Office in Dallas, Texas
- The Rocky Mountain Regional Office in Denver, Colorado
- The Elijah J. McCoy Midwest Regional Office in Detroit, Michigan
- The Silicon Valley Regional Office in San Jose, California

The Eastern Regional Outreach Office is based at the USPTO's Alexandria, Virginia, headquarters.

The USPTO is a distinctive government agency. The Omnibus Budget Reconciliation Act of 1990 mandated that the USPTO's operations be funded completely by user fees, a change that was implemented in 1991. In 1999, the American Inventors Protection Act (AIPA) incorporated performance-based attributes into the USPTO's operations. For example, the USPTO has a clear mission statement, measurable services, a performance measurement system that provides customers with the agency's performance expectations, and known funding sources. In 2011, the AIA provided temporary fee-setting authority that is essential to the USPTO's sustainable funding model.

FIGURE 1: UNITED STATES PATENT AND TRADEMARK OFFICE







- Alexandria, VA (USPTO Headquarters, including East Coast Outreach Office)
- Dallas, Texas
- Denver, Colorado
- · Detroit, Michigan
- Silicon Valley, California

With the enactment of the SUCCESS Act in 2018, the USPTO needed to study, report, and provide legislative recommendations to increase entrepreneurship and the number of patents applied for and obtained by women, minorities, and veterans (and by small businesses owned by women, minorities, and veterans). The SUCCESS Act also amended the AIA to extend the USPTO's fee-setting authority until 2026.

The 21st Century Integrating Digital Experience Act of 2018 and the Evidence-Based Policymaking Act of 2018 emphasized acquiring and using customer feedback to shape agency operations, improve program data and information accessibility, and enhance digital customer experiences (CXs). In addition, in 2018, Patents and Trademarks were both designated as High-Impact Service Providers of federal services due to the scale and significance of their public-facing services. As a result, they must conduct capacity assessments to track their maturity, identify areas for growth, collect feedback in line with government-wide measures, and outline specific actions that are directly aimed at improving critical moments in their customers' journeys.

PATENTS ORGANIZATION

Patents is led by the Commissioner for Patents, who oversees all aspects of the organization, including the administration of patent operations, examination policy, patent quality management, international patent cooperation, resources and planning, and budget administration. Patents plays a primary role in advancing the USPTO's mission to promote innovation, competitiveness, and job growth in the United States. The primary function of Patents is having examiners (highly skilled professionals with backgrounds in science, engineering, and graphic design/art) review patent applications to determine whether the claimed invention is eligible for patent protection, useful, adequately disclosed, and clearly defined. In addition, patent examiners compare the claimed invention to a large body of technical information to determine whether it is novel and non-obvious. Furthermore, patent examiners respond to appeal briefs on applications appealed to the PTAB and prepare preliminary examination reports for international applications filed under the Patent Cooperation Treaty (PCT). Patents also engages in policy development for examination; patent-focused educational and stakeholder outreach; and, in collaboration with OPIA, international cooperation.

TRADEMARKS ORGANIZATION

The Trademarks organization registers marks (i.e., trademarks, service marks, certification marks, collective marks, and collective membership marks) that meet the requirements of the Trademark Act of 1946, as amended. Its database provides notice to the public and businesses of the trademark rights claimed in pending applications and existing registrations. The core business of Trademarks is examining applications for trademark registration. As part of this process, examining attorneys make determinations as to registrability under the provisions of the Trademark Act by:

- Searching electronic databases for pending or registered marks that are confusingly similar to those in a subject application
- Preparing letters and communicating findings to applicants as well as approving applications to be published for opposition
- Examining statements of use in claims filed under the Intent-to-Use provisions of section 1(b) of the Trademark Act.

The organization also evaluates and approves lawful maintenance documents and renewals of trademark registrations. Additionally, Trademarks engages in policy development for examination; trademark-focused education and stakeholder outreach; and, in collaboration with OPIA, international trademark cooperation.

POLICY AND INTERNATIONAL AFFAIRS

OPIA supports the Under Secretary and Director's Office in fulfilling the USPTO's statutory mandate to advise the administration (through the Secretary of Commerce) and federal agencies on all IP policy issues, to conduct programs and studies on IP, and to work with IP offices and intergovernmental organizations worldwide. OPIA's work includes:

- Providing high-quality capacity building programs on all facets of IP protection and enforcement
- Leading negotiations on behalf of the United States at the World Intellectual Property Organization (WIPO)
- Providing expert guidance in negotiating the IP provisions of free trade agreements and advising on their implementation
- Managing the IP Attaché Program, through which IP experts are placed in U.S. Missions throughout the world to promote high-quality IP protection and enforcement
- Engaging with Congress and other federal agencies on IP legislation
- Conducting and supporting empirical studies of the economic impacts of IP and innovation

OUR PEOPLE

At the end of FY 2021, the USPTO workforce (Figure 3) was comprised of 12,963 federal employees, including:

- 8,073 patent examiners
- 662 trademark examining attorneys
- 244 APJs
- 27 administrative trademark judges (ATJs)
- 3,957 other staff performing functions in areas including, but not limited to, the PTAB and the TTAB, international affairs, congressional relations, IT, financial management, administrative support, legal affairs, human resources, and the Under Secretary and Director's Office

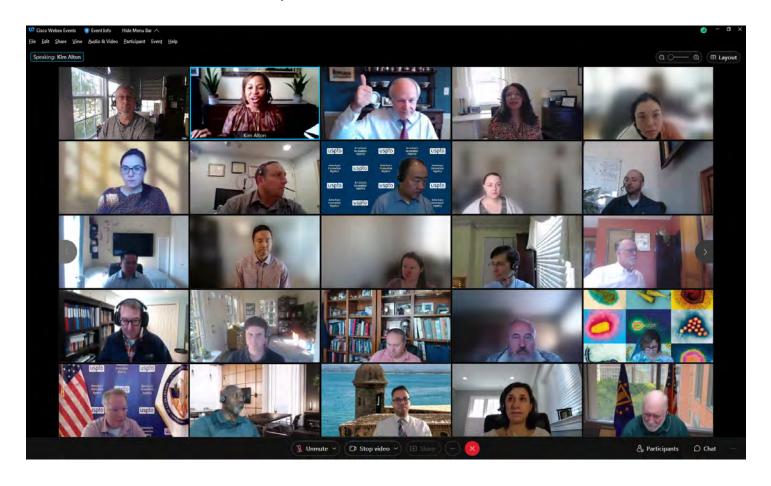
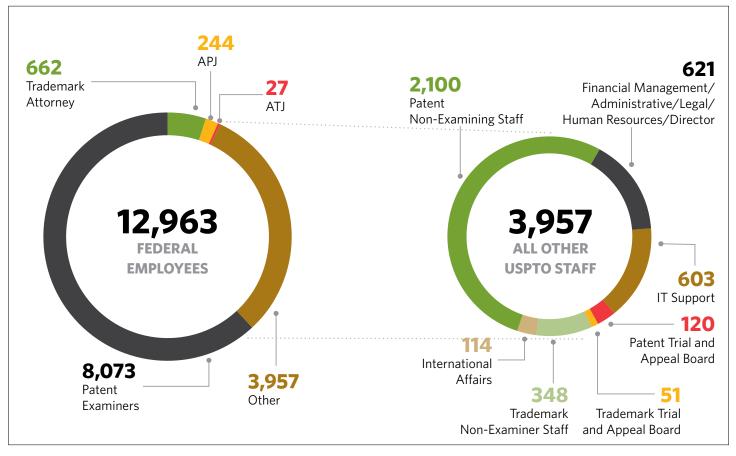


FIGURE 3: USPTO STAFFING



SIGNIFICANT CASE LAW DEVELOPMENTS

RECENT DECISIONS

The USPTO continues to play a critical role in shaping IP law through litigation, both as a party and an amicus (i.e., "friend of the court"). The agency's IP litigation responsibilities fall primarily on the Office of the Solicitor within the USPTO's OGC. Among other responsibilities, the Solicitor's office represents the Director in direct appeals from adverse PTAB and TTAB decisions in the Court of Appeals for the Federal Circuit and in district court; in collaboration with OPIA, works with the Department of Justice on IP cases before the Supreme Court and the various circuit courts; and represents the Director in district court actions that are filed against the USPTO pursuant to the Administrative Procedure Act. This litigation encompasses a broad spectrum of legal issues affecting both agency practice and substantive patent and trademark law.

The USPTO was involved in several important IP cases in FY 2021 at the Supreme Court and at the Federal Circuit. Of these, the two most directly affecting agency interests are United States v. Arthrex, Inc. and Mylan Labs, Ltd. v. Janssen Pharmaceutical, N.V. Arthrex concerned the authority of the PTAB's APJs to conduct a specific type of two-party, post-issuance patent trial proceeding to determine patentability: inter partes review. The USPTO worked with the Solicitor General's office to prepare a brief asking the Supreme Court to overturn the Federal Circuit's holding that the PTAB's APJs function as unconstitutionally appointed principal officers during inter partes review proceedings, or, alternatively, to modify the portion of the Federal Circuit's remedy severing restrictions on the removal of APJs under title 5 of the U.S.C. (thereby making them inferior officers whose appointments do not require the Senate's advice and consent). Though the Supreme Court ultimately agreed with the Federal Circuit that the authority wielded by APJs during inter partes review is constitutionally incompatible with their appointment by the Secretary of Commerce as inferior officers, the Court held that the more appropriate remedy for correcting this defect is to permit further review of PTAB decisions by the Director of the USPTO. The USPTO's implementation of and response to the Supreme Court's decision in Arthrex has been swift and significant. For example, in the week after the Supreme Court issued its decision, the Federal Circuit asked the USPTO to weigh in on all pending and past appeals where an Appointments Clause challenge had been raised, and, in the month following the court's order, the USPTO filed 68 responsive briefs.

Around this same time, the constitutionality of the appointment of the TTAB's ATJs was also called into question in Piano Factory Group v. Schiedmayer Celesta GmbH. Guided by the Supreme Court's decision in Arthrex, the Federal Circuit held that the Director's broad supervisory authority over TTAB decisions, together with the absence of any statutory limits on the composition of TTAB panels, indicates that the ATJs are inferior officers under the Appointments Clause and thus are not required to have been appointed by the President and confirmed by the Senate. The court also noted that the TMA further confirmed the Director's previously implicit authority to exercise supervisory authority by rehearing TTAB decisions.

Though Arthrex-type disputes will decrease in FY 2022, the USPTO continues to face legal challenges related to the reviewability of decisions on whether to institute patent trial proceedings under the AIA. Over the past several years, the USPTO has obtained a number of important rulings upholding the proscription in 35 U.S.C. § 314(d) against the judicial review of institution decisions based on the discretionary nature of these determinations (see, e.g., Cuozzo Speed Techs. v. Lee). Currently, several cases are challenging the agency's application of two precedential PTAB institution decisions: NHK Spring Co. v. Intri-Plex Techs., Inc. and Apple Inc. v. Fintiv, Inc. These decisions set out factors that the PTAB considers in exercising discretion in determining whether to institute an AIA proceeding when the same patent is involved in parallel litigation. Multiple parties have challenged the NHK and Fintiv decisions in district court under the Administrative Procedure Act, and others have sought relief from PTAB denials of institution on direct appeal to the Federal Circuit. The district court suits are ongoing, but the Federal Circuit, in Mylan v. Janssen and Apple Inc. v. Optis Cellular Tech., LLC, held that it lacks jurisdiction to hear appeals of institution denials related to NHK and Fintiv and also denied mandamus (i.e., court-ordered) relief based on that holding. The government's briefs in Apple v. Optis and Mylan v. Janssen were submitted.

The USPTO also worked with the Solicitor General's office to formulate the government's position in another high-profile case decided by the Supreme Court in FY 2021: *Minerva Surgical, Inc. v. Hologic, Inc.* In *Minerva*, the court considered the Federal Circuit's application of the patent law doctrine of assignor estoppel, which prevents a patent owner who assigns his or her patent rights to another from later challenging the validity of the assigned patent or any patents stemming from it. In a 5-4 decision, the Supreme Court largely followed the government's suggested course, affirming the continued vitality of the doctrine but limiting its scope as it was originally applied (i.e., to cases in which the assignor's claim of invalidity contradicts explicit or implicit representations he or she made when assigning the patent at issue).

PERFORMANCE HIGHLIGHTS

INTRODUCTION TO PERFORMANCE

The USPTO issued its 2018-2022 Strategic Plan in 2018 (see Table 1). The plan outlines the framework that enables the USPTO to respond to domestic and international customers' demands for vital and timely IP products and services and builds on the agency's current organizational effectiveness and efficiency. Highlights include:

- Issuing reliable IP rights
- Aligning Patent and Trademark examination capacity with current and projected workloads
- Modernizing IT
- Enhancing the customer experience (CX)
- Promoting a mission-oriented and quality-focused culture among USPTO employees
- Protecting IP rights abroad
- Monitoring and helping to address dynamic IP issues in Congress and the courts
- Maintaining a sustainable funding model
- Developing IP policy

The USPTO's achievements in these areas further the aspiration of maintaining the United States as the global leader in IP.

STRATEGIC PERFORMANCE FRAMEWORK

To fulfill the mission and goals included in the 2018-2022 Strategic Plan, the USPTO developed a comprehensive Strategic Performance Framework and quarterly Balanced Scorecard, which guide and monitor the implementation of the agency's objectives, initiatives, and performance measures and indicators.

The USPTO's strategic goals align with DOC's strategic goals and objectives. These priorities support the Department's strategic objective to "strengthen IP protection." They protect IP both in the U.S. and abroad by providing vital and significant rights, encouraging the continued development of innovation, and enforcing the Nation's

trade laws and security laws, thus ensuring that foreign governments comply with IP-related international agreements. For FY 2021, there were 9 strategic plan key performance outcome measures, all designed to monitor progress as the USPTO implements initiatives to achieve its strategic goals. The USPTO also developed annual performance targets for each measurable outcome. Supporting measures are metrics that facilitate progress on the key performance measures, and many are viewable online in the **USPTO's Data Visualization Center**. In FY 2021, the USPTO met or exceeded its targets for 7 out of 9 key performance metrics. A summary of the key performance measurement results is provided in Tables 2 and 3. The goals and objectives for these performance commitments are in the strategic framework presented in Table 1. A summary of strategic goal results is in Figure 4.

TABLE 1: 2018-2022 STRATEGIC PLAN

Strategic Goals with Resources Invested	Objectives		
	Optimize Patent Application Pendency		
Goal I:	Issue Highly Reliable Patents		
Optimize Patent Quality and Timeliness Obligations: \$3,266.3 million	Foster Innovation Through Business Effectiveness		
Total Program Cost: \$3,189.3 million	Enhance Operations of the Patent Trial and Appeal Board (PTAB)		
Goal II:	Optimize Trademark Application Pendency		
Optimize Trademark Quality and Timeliness	Issue High-Quality Trademarks		
Obligations: \$380.9 million	Foster Business Effectiveness		
Total Program Cost: \$372.0 million	Enhance Operations of the TTAB		
Goal III: Provide Domestic and Global Leadership to Improve Intellectual Property Policy,	Provide Leadership and Education on Domestic Intellectual Property Policy and Awareness		
Enforcement, and Protection Worldwide Obligations: \$75.3 million Total Program Cost: \$66.1 million	Provide Leadership and Education on International Intellectual Property Policy and Awareness		
	Enhance Human Capital Management and Foster Employee Engagement		
MISSION SUPPORT GOAL:	Optimize Speed, Quality, and Cost-Effectiveness of Information Technology Delivery to Achieve Business Value		
Achieve Organizational Excellence*	Ensure Financial Sustainability to Facilitate Effective USPTO Operations		
	Enhance the USPTO's Interaction with Internal and External Stakeholders and the Public at Large		

^{*}The cost associated with Mission Support Goal activities is distributed among the agency's primary Strategic Goals I, II, and III.

TABLE 2: SUMMARY OF FY 2021 KEY PERFORMANCE INDICATOR RESULTS

Strategic Goal	Total Number of Objectives	Total Number of Key Performance Measures	Key Performance Indicators That Met Target	Key Performance Indicators Where the Target Was Not Met
Goal I: Optimize Patent Quality and Timeliness	4	2	1	1
Goal II: Optimize Trademark Quality and Timeliness	4	5	4	1
Goal III: Provide Domestic and Global Leadership to Improve Intellectual Property Policy, Enforcement, and Protection Worldwide	2	2	2	_
Mission Support Goal: Deliver Organizational Excellence	4	_	_	_
TOTAL	14	9	7	2

TABLE 3: SUMMARY OF KEY STRATEGIC GOAL RESULTS FOR FY 2016-2021

Strategic Goals Key Performance Measures	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Target	FY 2021 Actual*
GOAL I: Optimize Patent Quality and Timeliness							
Total PTA Compliance - Mailed Actions	N/A	N/A	N/A	N/A	N/A	84%	83%
Total PTA Compliance - Remaining Inventory	N/A	N/A	N/A	N/A	N/A	86%	86%
GOAL II: Optimize Trademark Quality and Ti	meliness						
Average First Action Pendency (months)	3.1	2.7	3.4	2.6	3.0	4.5	6.3
Average Total Pendency (months)	9.8	9.5	9.6	9.3	9.5	12.0	11.2
First Action Compliance Rate	97.1%	97.3%	96.9%	96.4%	95.7%	95.5%	96.3%
Final Compliance Rate	97.8%	98.3%	97.9%	97.4%	98.1%	97.0%	98.7%
Exceptional Office Action	45.4%	45.0%	48.0%	54.5%	51.0%	50.0%	54.1%
and Protection Worldwide	GOAL III: Provide Domestic and Global Leadership to Improve Intellectual Property Policy, Enforcement, and Protection Worldwide						
Percentage of prioritized countries for which IP country teams have made progress on at least three of the four performance criteria:*** Institutional improvements of intellectual property (IP) office administration for advancing IP rights, Institutional improvements of IP enforcement entities, Improvements in IP laws and regulations, and Establishment of government-to-government cooperative mechanisms.	100.0%	100.0%	100.0%	66% ¹	100.0%	66.0%	100.0%
Number of people, including foreign government officials and U.S. stakeholders, trained on best practices to protect and enforce IP	4,975	4,134	7,242	9,854	10,688	5,000	17,841

^{*} Current year actuals are preliminary and may change after the publication of this report. Subsequent changes, if any, will be reported in the FY 2022 Performance and Accountability Report.

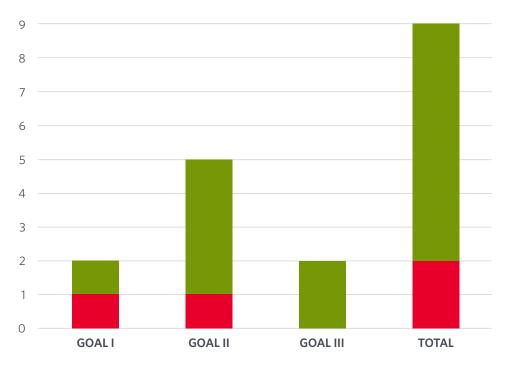
Key: Met (100% or greater of target) Not met (99.9% or below of target)

^{***} 100% = 3 out of 3 countries; 66% = 2 out of 3 countries.

¹ The actual for OPIA's FY 2019 results have been updated to reflect 66.0%.

Figure 4 compares the FY 2021 actual performance results for the USPTO's key performance measures with established goal objectives and performance targets. For the measures retained from prior fiscal years, Table 3 includes actual performance results for the past five fiscal years. Complete performance data is in the Performance Information section.





At the USPTO, the Mission Support Goal enables the three primary strategic goals for patents, trademarks, and policy and international affairs. Mission Support Goal performance measures are subsets of the performance indicators contained within the first three strategic goals.

KEY: MET (100% OR GREATER OF TARGET) NOT MET (99.9% OR BELOW OF TARGET)

MANAGEMENT CHALLENGES AND WHAT'S AHEAD

WORKING TO PROVIDE STABLE AND SUSTAINABLE FUNDING IN AN UNSTABLE WORLD

The USPTO has unique financial needs. Operating as a business-like government agency, the USPTO recognizes that demand for its services, funding streams, production capacity, and performance are inextricably linked with and heavily influenced by the state of the U.S. and global economies. Stable, sustainable funding and timely access to the fees the agency collects continue to serve as the cornerstones for accomplishing the USPTO's mission.

The last two years have demonstrated that the USPTO must execute its mission nimbly. Global business disruptions from the COVID-19 pandemic, court decisions, international IP policy shifts, changes in customer practices in response to the USPTO's policies, growth in international filings—all of these factors have shown how quickly demand for the USPTO's services can change and the necessity of the agency to respond in a timely manner. Specifically, the rapidly evolving trademark landscape—including the growth of e-commerce during the pandemic, the proliferation of government incentives in other countries for certain business behaviors, and other changes—necessitates careful monitoring and assessment of the trademark fee schedule. For both patents and trademarks, the USPTO must respond appropriately to changing customer practices to ensure that its operating model, which relies on cost recovery, works properly.

The USPTO maintains two operating reserves—one each for Patents and Trademarks—to mitigate financial and operational risks and enable sustainable funding given the agency's cost recovery operating model. The USPTO manages these reserves within a range of acceptable balances—a minimum planning level and an optimal planning level—based on an assessment of key risk factors. The patent and trademark operating reserves enable the USPTO to finance agency operations consistently in support of the mission or shift the operating approach as the situation dictates. The Government Accountability Office (GAO) has indicated that "an operating reserve is important for fee-funded programs to match fee collections to average program costs over time and because program costs do not necessarily decline with a drop in fee collections."

The USPTO views building the operating reserves to their optimal levels as a budgetary requirement, which balances near-term operational needs and long-term goals. Looking forward, as the agency considers potential structural changes to its patent and trademark fee schedules, the operating reserves will be critical in enabling the USPTO to maintain financial sustainability.

The USPTO's fee schedules are the basis for incoming fee collections and must be monitored and managed to support operational goals. A critical component of setting fees at appropriate levels is the USPTO's ability to forecast and monitor changes in revenue, spending, agency workload trends, and the IP environment more broadly. As the USPTO's operating environment becomes more and more

complex, the agency must be able to comprehend the data that is available to inform fee schedules and finance agency spending requirements. To do so, the USPTO must position itself to make comprehensive, data-driven decisions as part of delivering sound financial management.

RELIANCE ON INFORMATION TECHNOLOGY

The USPTO is a global leader in promoting laws and policies that advance innovation and IP rights and encourage economic growth through innovation and creativity. IT enables the USPTO to achieve its mission to champion innovation. The USPTO's mission and support organizations are reliant on technology services, including search and examination tools as well as tools for managing access rights and accepting fees associated with patent and trademark services.

To achieve the USPTO's mission, IT development and operations must be agile, reliable, and able to adapt and take advantage of constantly evolving emerging technologies and methodologies. The USPTO continues its multiyear efforts to modernize its business IT solutions and supporting IT infrastructure to keep pace with emerging and evolving business needs, security, and technology standards that will ultimately allow the agency to retire aging legacy solutions. In FY 2021, the USPTO identified three key areas for IT investment and focus: the movement of applications to the cloud, resilience, and cybersecurity. By focusing on these areas, the USPTO aims to deliver modern, secure, and resilient IT solutions. Recent activities include migrating all USPTO applications from Windows Server 2003 and 2008 to a supported version that is not prone to security vulnerabilities; conducting numerous cloud assessments to identify cloud-ready applications; and securing new contractors to support faster time-to-delivery from autonomous and empowered, agile development teams.

INTELLECTUAL PROPERTY LEGAL CHALLENGES

The USPTO faced legal challenges in FY 2021 that will continue to affect its patent operations in FY 2022 and likely raise similar difficulties in the trademark realm. More specifically, the Supreme Court's FY 2020 decision in Peter v. NantKwest held that, although 35 U.S.C. § 145 provides that the applicant shall pay "[a]II the expenses of the proceedings" in a district court suit to obtain a patent, these expenses do not include expenses for attorney and paralegal time. In its FY 2020 Booking.com v. lancu decision, the Supreme Court similarly vacated the attorney and paralegal expenses award in a corollary § 1071(b) trademark action based on its decision in NantKwest. This fiscal year, the Federal Circuit held that § 145 expenses also do not include expert witness fees incurred by the USPTO in the defense of the PTAB's decisions in district court. Under these circumstances, the USPTO expert witness fee expenditures in § 1071(b) actions are presumed to no longer be recoverable. Because the USPTO typically cannot effectively defend patent rejections in district court without the use of expert witnesses and the expert witness fees in such cases can often exceed \$100,000, these decisions may dramatically affect the way the USPTO litigates these actions.

ANALYSIS OF SYSTEMS, CONTROL, AND LEGAL COMPLIANCE

MANAGEMENT ASSURANCES

n the basis of the USPTO's comprehensive internal control program in place during FY 2021, the USPTO can provide reasonable assurance that its internal control over the effectiveness and efficiency of operations, reporting, and compliance with applicable laws and regulations, as of September 30, 2021, was operating effectively. Accordingly, I am pleased to certify with reasonable assurance that the USPTO's systems of internal control, taken as a whole, comply with section 2 of FMFIA. The USPTO also is in substantial compliance with applicable federal accounting standards and the U.S. Standard General Ledger at the transaction level as well as federal financial system requirements. Accordingly, the USPTO fully complies with section 4 of FMFIA, with no material non-conformances.

In addition, the USPTO conducted an assessment of the effectiveness of its internal control over reporting, which includes the safeguarding of assets and compliance with applicable laws and regulations, in accordance with OMB Circular A-123, Management's Responsibility for Enterprise Risk Management and Internal Control. Based on the results of this evaluation, the USPTO provides reasonable assurance that its internal control over reporting, as of June 30, 2021, was operating effectively, and no material weaknesses were found in the design or operation of the internal control over reporting. In addition, no material weaknesses related to internal control over reporting were identified between July 1, 2021, and September 30, 2021.

Andrew Hirshfeld

Om Halple

Performing the Functions and Duties of the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office

October 4, 2021

FEDERAL MANAGERS' FINANCIAL INTEGRITY ACT (FMFIA)

The FMFIA requires federal agencies to provide an annual statement of assurance regarding management controls and financial systems. USPTO management is responsible for establishing and maintaining effective internal control and financial management systems that meet the objectives of the FMFIA. The objectives of internal control are to ensure:

- Effectiveness and efficiency of operations
- Reliability of financial reporting
- Compliance with laws and regulations

The statement of assurance is based on a wide variety of evaluations, control assessments, internal analyses, reconciliations, reports, and other information, including DOC's Office of Inspector General (OIG) audits, independent public accountants' opinions on the USPTO's financial statements, and the accountants' reports on internal control and compliance with laws and regulations. In addition, the USPTO is not identified on the GAO's High Risk List related to controls governing various areas.

FEDERAL FINANCIAL MANAGEMENT IMPROVEMENT ACT

The Federal Financial Management Improvement Act (FFMIA) requires federal agencies to report on their substantial compliance with federal financial management system requirements, federal accounting standards, and the U.S. Standard General Ledger at the transaction level. In accordance with OMB Circular A-123, Appendix D, substantial compliance is achieved when an agency's financial management systems routinely provide reliable and timely financial information for managing day-to-day operations, producing reliable financial statements, maintaining effective internal control, and complying with legal and regulatory requirements. The USPTO complied substantially with the FFMIA during FY 2021.

OTHER COMPLIANCE WITH LAWS AND REGULATIONS

FEDERAL INFORMATION SECURITY MANAGEMENT ACT

The USPTO remains vigilant in reviewing administrative controls over information systems and is always seeking methods of improving its security program. During FY 2021, the USPTO continued its efforts in support of complying with Federal Information Security Management Act (FISMA) standards and improving its security program. The USPTO IT Security Program includes a strategy for continuous monitoring that conducts credentialed compliance and vulnerability scans on servers, network devices, databases, and web applications quarterly. The program performs monthly analyses to ensure that operating systems have been configured in accordance with their security baseline and the appropriate software patch levels. Additionally, the IT Security Program has integrated artifacts to support the Security Impact Analysis within the systems development life cycle that allow for the assessment of testing requirements for systems undergoing new developments, enhancements, or maintenance. This proactive approach to security within the development process has successfully assessed changes and enabled security compliance for systems as they are being developed or updated.

The USPTO successfully met the compliance requirements of FISMA while meeting OMB reporting requirements. All USPTO systems achieved a 100% FISMA compliance reporting level for FY 2021, with no deficiencies that are considered to be the result of any material weaknesses in internal control. As a result, the USPTO was able to maintain its continuous monitoring and provide an accurate summary of information consistent with OMB requirements for year-end reporting.

The Inspector General's Statement of Management Challenges for DOC (referred to in the Other Information section of this report) identifies IT security as a cause for concern department-wide. However, USPTO management does not agree that any of the USPTO-specific FISMA findings, either individually or collectively, rise to a

level that would require treating the matter as a material weakness. As indicated, the USPTO's continuous monitoring and proactive approach to security compliance for systems support the removal of material weaknesses at the USPTO.

The USPTO continues to coordinate closely with the OIG throughout the year as well as review annual assessments with the OIG to gain additional insight and ensure compliance with requirements.

IMPROPER PAYMENTS ELIMINATION AND RECOVERY ACT

The USPTO continues to maintain internal control procedures that help monitor the disbursement of federal funds for valid obligations. The USPTO also assesses improper payment risks for all programs and activities, as required by OMB Circular A-123, Appendix C, Requirements for Payment Integrity Improvement. These improper payment risk assessments, which are updated annually, include assessments of the control and procurement environments. Additional details can be found in the Other Information section of this report (see page 180).

PROMPT PAYMENT ACT

The Prompt Payment Act requires federal agencies to report on their efforts to make timely payments to vendors as well as on the amount of interest penalties paid for late payments. In FY 2021, the USPTO did not pay interest penalties on 99.1% of the 5,808 vendor invoices processed, representing payments of approximately \$883.2 million. Of the 51 invoices that were not processed in a timely manner, the USPTO was required to pay interest penalties on all 51 invoices. The USPTO paid \$17 in interest penalties for every million dollars disbursed in FY 2021, and total interest penalties paid amounted to \$14.9 thousand. Virtually all recurring payments were processed by electronic funds transfer, in accordance with the electronic funds transfer provisions of the Debt Collection Improvement Act of 1996.

The USPTO continues to identify opportunities for new or improved business processes for its prompt payment percentage. Per OMB Memorandum M-15-19, Improving Government Efficiency and Saving Taxpayer Dollars through Electronic Invoicing (July 17, 2015), federal agencies were required to transition to electronic invoicing for appropriate federal procurements by the end of FY 2018. In 2017, the USPTO reviewed various electronic invoicing options and made a selection. The USPTO had a solution in place by the end of FY 2018, and vendor adoption began in FY 2019. The USPTO continued to increase the usage for Vendor Portal in FY 2021 by adding 76 new vendors to the vendor portal, an increase of over 304% compared to the prior year. In addition to processing payments in FY 2021, the Vendor Portal users also used the system to get contract status, submit contract deliverables, receive direct solicitations, and submit offers through the portal.

DEBT COLLECTION IMPROVEMENT ACT

The Debt Collection Improvement Act prescribes standards for the administrative collection, compromise, suspension, and termination of federal agency collection actions as well as referral to the proper agency for litigation. Although the act has no material effect on the USPTO since it operates with minimal delinquent debt, all debt more than 120 days old has been transferred to the U.S. Department of the Treasury for cross-servicing.

DIGITAL ACCOUNTABILITY AND TRANSPARENCY ACT OF 2014

The Digital Accountability and Transparency Act of 2014 (the DATA Act) aims to increase the accessibility, accuracy, and usefulness of federal spending information. The DATA Act establishes government-wide data standards for financial data; seeks to simplify financial reporting; and provides consistent, reliable, accurate, and searchable spending data that is displayed for taxpayers and policy makers on USAspending.gov.

The budget, financial spending, and award data that are required to comply with the DATA Act are currently housed in a single source system at the USPTO. Most activities required to report the DATA Act information at the USPTO entail extracting, validating, and reconciling the data prior to submission to the Treasury. For all periods required during FY 2021, the USPTO reported financial and payment data in accordance with DATA Act requirements and data standards established by the Department of the Treasury and OMB.

OTHER SYSTEMS AND CONTROL CONSIDERATIONS

FINANCIAL MANAGEMENT SYSTEMS STRATEGY

In FY 2020, the USPTO realigned IT into four product lines and 30 products for capital planning and investment control. The Enterprise Business Product Line includes three products that support the overall USPTO financial management function: the Financial Management Product; the Fee Management Product; and the Planning, Budgeting, and Governance Product. In addition, the overall USPTO financial management function is supported by a fourth product in the Enterprise Business Product Line: the Data and Analytics Product. In FY 2022 and FY 2023, the Enterprise Business Product Line will focus on moving financial management product components (commonly referred to as systems) to public cloud softwareas-a-service models where available and cost-beneficial.

The Financial Management Product leverages several commercial-off-the-shelf (COTS) components, including a core financial and acquisition tool (Momentum), supplemental acquisition tools (Aeon), and a travel tool (Concur). The product supports acquisition management, payroll management, travel management, accounting management, and funds management. Though most of the activities have been automated for well over 20 years, many of the acquisition capabilities were just automated in the past few years. In addition, though the USPTO has focused on interactions between the agency and the vendor community in the past, this focus was even stronger in FY 2021, and it will continue into FY 2022.

The Fee Management Product, which is the result of custom development, integrates with Momentum, which maintains the USPTO revenue subsidiary ledger. The services provided by this product include maintenance fee management, stored payment account management, pricing management, order management, and funds management. In FY 2021, the USPTO moved the fee management product to a public cloud; this provided for cost savings and increased resiliency. In FY 2022 and beyond, customers will be provided the option to pay via ACH Credit, along with additional external customer functionality (e.g., general deposit account authorizations).

The Planning, Budgeting, and Governance Product leverages COTS components, including budgeting tools (Hyperion and Oracle APEX), a fee forecasting tool (Alteryx), and a cost accounting tool (Cost Perform). This product supports planning, forecasting, budgeting, and performance management. IT budget formulation and execution functionality were deployed in FY 2021 so Cognos Planning could be retired. From there, Hyperion will be expanded to serve the decentralized budget and performance management needs of each USPTO business unit. In addition, Alteryx will be expanded to include workload forecasting for a fully automated USPTO business model.

In addition to the source databases supporting each COTS component mentioned above, a COTS content repository (Cassandra and DataStax) is available to store unstructured data, such as scanned check images from the Fee Management Product and vendor submissions from the Financial Management Product. This content repository is currently part of the Data and Analytics Product.

The Data and Analytics Product includes both structured data in the Enterprise Data Warehouse (EDW) and unstructured data in the Big Data Reservoir. To date, the financial management function has mainly leveraged the EDW. The EDW user community uses business intelligence tools (Business Objects and Tableau), and system administrators use an extract, transform, and load tool (SAP Data Services). The USPTO is undergoing a culture shift toward viewing data as an asset. The financial management community's attention to the benefits of the Data and Analytics Product will grow in the coming years, as will the product.

FINANCIAL DISCUSSION AND ANALYSIS

FINANCIAL HIGHLIGHTS

The USPTO operations are financed solely by user fees received for incoming work, much like a private sector business. Demand for the products and services are directly correlated with the amount of fees collected. The USPTO routinely forecasts both demand for products and services and fee collections to plan for and manage annual operating expenses. The forecasts have inherent uncertainty because the exact economic conditions upon which fee collections are premised are uncertain and actual demand for patents and trademarks could be higher or lower than projected. The USPTO must maintain operations and meet actual demand regardless of these forecasts. As we continued operating through the COVID-19 global pandemic, the USPTO routinely updated its fee collection forecasts, tracked operational and financial performance, and monitored changes in the economy to mitigate this risk of uncertainty.

The COVID-19 pandemic impacted the USPTO demand on patent and trademark activity differently. The patent impacts were somewhat slow to materialize in FY 2020 and continued to depress patent demand in FY 2021, despite strong economic growth. The FY 2021 patent demand closed slightly below the FY 2020 demand. Historically, trademark demand has exhibited a more immediate correlation with changes in the economy. Accordingly, the USPTO experienced a pandemic-related reduction in trademark application filings during the second quarter of FY 2020 that, at the time, looked likely to continue, causing the agency to defer hiring examining

attorneys and reduce its operating tempo in FY 2020. This was followed by an unexpected and strong increase in filings in the fourth quarter as the economy responded to unprecedented levels of fiscal and monetary stimuli issued by governments around the world in response to the COVID-19 pandemic. Positive economic conditions have continued in FY 2021, and overall demand for USPTO services stabilized and followed a predictable pattern during the second half of the fiscal year. Both FY 2020 and FY 2021 trademark application filings closed substantially higher than forecasted. The USPTO's strong financial management, including maintaining operating reserves in accordance with GAO best practices to mitigate the risk of uncertain demand and revenue volatility, continues to enable the agency to operate with minimal disruption despite the ongoing pandemic.

The patent and trademark fee setting activities that were initiated in FY 2018 and FY 2019, respectively, also had a positive impact on the USPTO's financial outcomes for FY 2021. The patent final rule published in the Federal Register on August 3, 2020 ("Setting and Adjusting Patent Fees During Fiscal Year 2020") and became effective on October 2, 2020. The trademark final rule published in the Federal Register on November 17, 2020 ("Trademark Fee Adjustment"), and became effective on January 2, 2021. These new fee rules increased certain patent and trademark fees, thereby increasing aggregate revenues sufficiently to recover aggregate costs and support operating reserve balances within established targets.

Some customers opted to pay fees before the effective date of the patent fee increase (i.e., October 2, 2020) to accrue the savings from the lower fee amounts. This was particularly evident for patent maintenance fees that have a six-month period in which the fee can be paid. Consequently, the USPTO received a surge of more than \$200 million in early patent fee collections in the final month of FY 2020. There was then a subsequent dip in patent-related fee collections in the first and second quarters of FY 2021, offsetting the early payments that occurred at the end of FY 2020 and resulting in a net shift in fee collections across the two fiscal years. When incremental fee collections exceeded the FY 2020 appropriation level as a result of the early patent fee payments, those incremental amounts were deposited in the Patent and Trademark Fee Reserve Fund (PTFRF). The early fee collections received in the final month of FY 2020 and deposited in the PTFRF were subsequently needed to finance aggregate costs incurred in FY 2021, consistent with the USPTO's planning forecast. To make the PTFRF deposits available to finance operations, the USPTO requested a Congressional reprogramming in the first quarter of FY 2021. The \$231.9 million reprogramming request was approved on March 1, 2021.

The USPTO received an unmodified (clean) audit opinion from the independent public accounting firm of KPMG LLP on its FY 2021 financial statements, provided in the Financial Section of this report. This is the 29th consecutive year that the USPTO has received an unmodified audit opinion, an outcome that provides independent assurance to the public that the information in the USPTO financial statements is fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America. In addition, KPMG LLP reported no material weaknesses or significant deficiencies in the USPTO's internal controls and no instances of noncompliance with laws and regulations affecting the financial statements. The agency resolved a significant deficiency related to IT security in FY 2021 that KPMG LLP had identified in FY 2015 and repeated with revisions in each subsequent fiscal year. Please refer to the Other Information section for the Summary of Financial Statement Audit and Management Assurances.

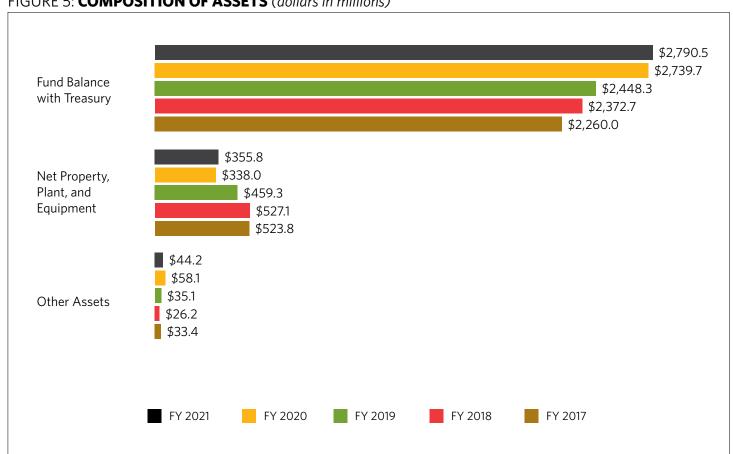
The financial highlights presented in this section provide an analysis of the information that appears in the USPTO's FY 2021 financial statements (amounts may vary slightly due to rounding). The USPTO financial management process ensures that financial decision-making information relied upon by USPTO leadership is dependable, internal controls over financial reporting are effective, and that compliance with laws and regulations is maintained. These highlights and the issuance of these financial statements are components of the USPTO's objective to continually improve the accuracy and usefulness of its financial management information and the OCFO's mission to deliver cost-effective, data-driven, customercentric business solutions.

BALANCE SHEET AND STATEMENT OF CHANGES IN NET POSITION

At the end of FY 2021, the USPTO's Balance Sheet (see page 145) presents total assets of \$3,190.5 million, total liabilities of \$1,899.2 million, and a net position of \$1,291.3 million.

Total assets increased during FY 2021. Overall, there has been an increase of 13.3% over the last four years, resulting largely from the increase in the operating reserves. Figure 5 shows the changes in assets during this period.

FIGURE 5: **COMPOSITION OF ASSETS** (dollars in millions)



Fund Balance with Treasury is the single largest asset on the Balance Sheet and represents 87.5% of total assets at the end of FY 2021. Forty-two percent of the Fund Balance with Treasury represents fees the USPTO has collected between FY 1990 and FY 2011, but has not been authorized to spend through the annual appropriation process, including temporarily unavailable fees of \$937.8 million and

unavailable special fund receipts under the Omnibus Budget Reconciliation Act (OBRA) of \$233.5 million, which total \$1,171.3 million in unavailable fees. These funds require Congressional appropriation before they will be available for the USPTO's use. The Fund Balance with Treasury is also comprised of unexpended obligated funds of \$802.5 million, other funds held on deposit for customers of \$133.1 million, and appropriated but unobligated funds carried over from one year to the next (operating reserve) of \$683.6 million. See Note 2 (page 155) for additional information.

The operating reserves are carry-over balances and as such are available for use by the agency without further congressional appropriation. Operating reserves are a critical day-to-day financing mechanism, leveling differences between daily fee collections and daily costs, and also mitigating the risk of changing demand for USPTO services. The operating reserves are immediately available to enable the USPTO to consistently finance agency operations when: fee collections are partially or wholly unavailable (e.g., continuing resolution, government shutdown, etc.); fee collections are lower than expected (e.g., unexpected economic downturn); demand for patent and/or trademark services unexpectedly increases, resulting in higher than planned spending requirements to address the increases in work volumes (e.g., unexpected economic upturn); and other unanticipated spending requirements exceed planned estimates that are necessary to maintain USPTO operations. Typically, the operating reserves are relied upon more heavily at the beginning of a fiscal year as part of normal financing operations when the availability of new fee collections are oftentimes capped by a continuing resolution, prior year fee collections in the PTFRF are awaiting reprogramming approval, and other obligations that coincide with the start of a new fiscal year are incurred. The operating reserves provide sufficient resources to level operations as the collection of fees builds over the subsequent months.

As required by 35 U.S.C. § 42(c)(3), the USPTO maintains and tracks two distinct operating reserve balances—one for Patents operations and one for Trademarks operations. Both the patent and trademark operating reserve balances were maintained above the minimum planning level of \$300 million and \$75 million, respectively, for FY 2020 and FY 2021.

The patent operating reserve increased from \$397.0 million (1.5 months of operating expenses) at the end of FY 2020 to \$475.8 million (1.7 months of operating expenses) at the end of FY 2021, representing an increase of \$78.8 million, or 19.8%. The pandemic and previous economic downturns have been instructive to the USPTO on the need to maintain operating reserves sufficient to mitigate economic uncertainty risks and sustain operations. The USPTO plans for more discipline to maintain reserves above minimum levels and measured growth of the patent operating reserve until it achieves the optimal level of having the ability to finance three months of operations.

The trademark operating reserve increased from \$115.7 million (4.4 months of operating expenses) at the end of FY 2020 to \$207.8 million (6.2 months of operating expenses) at the end of FY 2021, representing an increase of \$92.1 million, or 79.6%. This increase in the reserve balance was directly related to the increase in certain trademark fees on January 2, 2021, as well as the increase in trademark filings, with filings from China and the United States representing the leading drivers of that growth. The primary reason for this sustained growth is not completely clear

at this point, but new business startups and federal economic stimuli were strongly correlated. The USPTO will use the trademark operating reserve to mitigate the ongoing demand uncertainty and its impact on Trademarks operations. The uncertainty in the demand for the USPTO's trademark services; the recent increase in trademark filings presenting an unusually large trademark application inventory awaiting examination; and the need to alter trademark operations to protect the integrity of the register and contend with increasing fraudulent applications, particularly digitally created or altered specimens, will likely require additional spending to resolve, and the trademark operating reserve is an important element of the overall financing approach. For more on Trademarks operations, please refer to page 81 in this document.

At the end of FY 2020, the USPTO deposited \$215.5 million in patent fee collections and \$16.4 million in trademark fee collections into the PTFRF. The FY 2020 appropriation authorized the USPTO to spend those fees without further appropriation, subject to reprogramming requirements. After working through the reprogramming process with congressional appropriators, the USPTO was given the ability to spend these funds on March 1, 2021, and they were transferred into the agency's regular spending account and used in FY 2021 for normal operating expenses.

During FY 2021, consistent with its strategic plan, the USPTO continued investing in IT, as evidenced by the \$75.7 million increase in the acquisition value of the other major asset—property, plant, and equipment—over the past year. Due to the recognition of depreciation and amortization program costs, the net balance of this asset has decreased by \$168.0 million during the past four years, while the acquisition values of property, plant, and equipment have increased by \$333.1 million. The USPTO continues to modernize IT products by employing cloud-based solutions that offer improved reliability, stronger cybersecurity protection, and an enhanced user experience. Continuing to make these investments will lead to future increases in software and software-in-development acquisition values. This was evidenced by an increase of \$355.9 million from FY 2017 through FY 2021 for software and software-in-development, with FY 2021 contributing \$85.3 million of that increase. During the past four years, IT modernization efforts included system and software development activities in support of the Patent, Trademark, Enterprise Business, and Enterprise Infrastructure product lines.

Total liabilities increased from \$1,651.3 million at the end of FY 2020 to \$1,899.2 million at the end of FY 2021, representing an increase of \$247.9 million, or 15.0%. Figure 6 shows the composition of liabilities during the past five years.

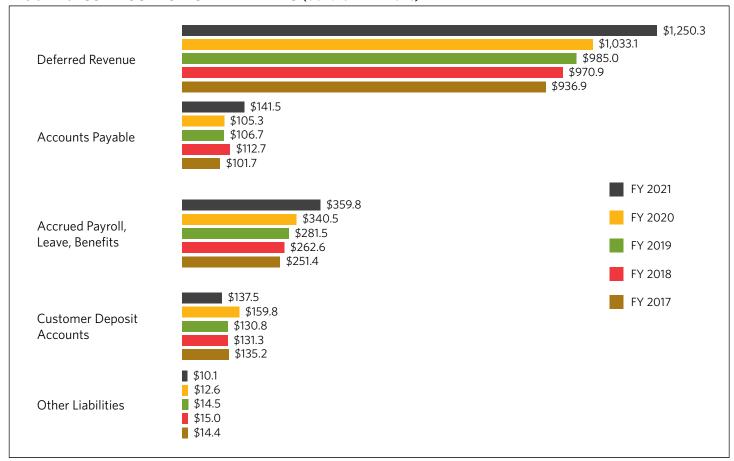


FIGURE 6: COMPOSITION OF LIABILITIES (dollars in millions)

The USPTO's deferred revenue (i.e., fees collected for services that have not yet been provided) is the largest liability on the Balance Sheet and accounted for the largest change over the past year. The liability for deferred revenue is estimated by analyzing the process for completing each fee service provided. The percent incomplete based on the inventory of pending work and completion status is applied to fee collections to estimate the amount for deferred revenue liability.

FY 2021 resulted in an increase to the deferred revenue liability of \$217.2 million, or 21.0% from FY 2020. The deferred revenue liability includes unearned patent and trademark fees, as well as an immaterial amount of undeposited checks. The unearned patent fees represented 83.2% of this liability for FY 2021. The accompanying figure depicts the composition of the deferred revenue liability during each of the past five years.

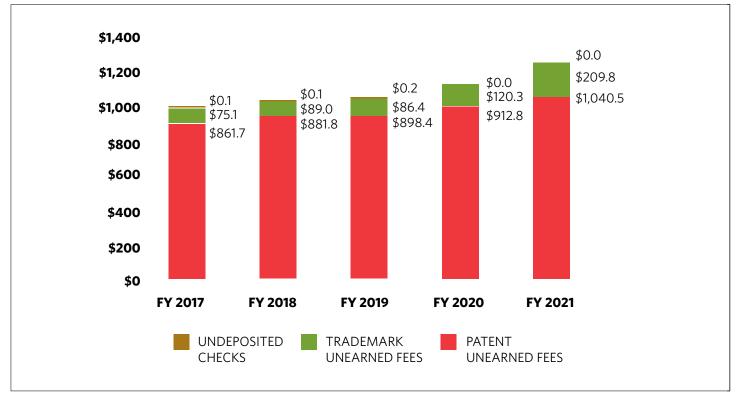


FIGURE 7: **DEFERRED REVENUE** (dollars in millions)

Deferred revenue at the USPTO is largely impacted by the change in patent and trademark filings, changes in the first action pendency, and changes in fee rates; increases to these result in increases in deferred revenue.

Table 4 depicts the changes in the filings and pendency months during the past five years.

TABLE 4: FILINGS AND PENDENCIES

Filings and Pendencies	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Patent Utility, Plant, and Reissue (UPR) Filings (including Designs and RCEs) ² Percentage Change in Patent Filings	650,350	647,572	666,843	653,311	650,703³
Percentage Change in Patent Filings	0.0%	(0.4)%	3.0%	(2.0)%	(0.4)%
Average Patent First Action Pendency (months)	16.2	16.3	14.7	14.8	16.9
Percentage Change in Average Patent First Action Pendency	(6.4)%	0.6%	(7.0)%	0.7%	14.2%
Average Total Patent Pendency (months)	25.3	24.2	23.8	23.3	23.3
Percentage Change in Total Patent Pendency	(4.9)%	(4.3)%	0.0%	(2.1)%	0.0%
Trademark Filings	530,270	594,107	673,233	738,112	943,928
Percentage Change in Trademark Filings	5.2%	12.0%	5.4%	9.6%	27.9%
Average Trademark First Action Pendency (months)	3.1	2.7	2.6	3.0	6.3
Percentage Change in Average Trademark First Action Pendency	6.9%	(12.9)%	(23.5)%	15.4%	110.0%
Total Trademark Average Pendency (months)	9.8	9.5	9.3	9.5	11.2
Percentage Change in Total Trademark Average Pendency	(3.0)%	(3.1)%	(3.1)%	2.2%	17.9%

² Includes UPR and design filings, as well as requests for continued examination (RCE). For the purposes of the deferred revenue calculation, serialized (new) patent filings and RCEs are consistently treated as filings, thus the presentation of a single number in the table.

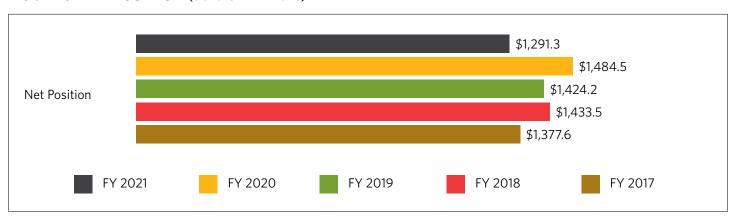
³ Preliminary data.

In FY 2021, with an increase in patent first action pendency of 2.1 months, caused in large part by side effects of the COVID-19 pandemic such as the provision of additional leave flexibilities to our employees for COVID-19 related situations and a decline in the use of overtime, and increased fee rates⁴ associated with the more recent applications, and despite offsets of decreased patent filings, unearned patent fees increased 14.0%. Based on recent estimates that begin to incorporate the pandemic's impact on future demand, the number of serialized patent applications filed is expected to gradually recover, with 1.5% growth in serialized filings in FY 2022, increasing gradually to 2.0% in FY 2023 through FY 2027. However, forward looking first action pendency is anticipated to increase in FY 2022 as we address the oldest filed patent applications as part of our focus on PTA time frames and investigate the need for additional examination time. The pendency increases will result in patent deferred revenue increases in the out years.

The trademark deferred revenue increased in FY 2021 by \$89.5 million, or 74.4%, from FY 2020, with an overall 179.4% increase over the past four years. The FY 2021 increase was consistent with the substantial increase in application filings, the resultant increase in trademark first action pendency to 6.3 months and total trademark average pendency increasing to 11.2 months, and increased fee rates⁵ associated with the more recent applications. A leveling correction in trademark filings began in FY 2021 in response to the FY 2020 filing surge and is forecasted to continue into the first part of FY 2022 before historical positive growth resumes. As the USPTO entered FY 2021 with a considerable backlog of unexamined trademark applications due to the unprecedented surge in trademark filings experienced in FY 2020, the agency adjusted first action pendency targets to be between 2.5 and 4.5 months in FY 2021 and between 2.5 and 6.0 months in FY 2022.

The Statement of Changes in Net Position (see page 147) presents the changes in the financial position of the USPTO due to the results of operations (discussed in the next section). The movement in net position is primarily the result of the net income or net cost for the year. The change in the net position during the past five years is presented in Figure 8. The primary causes for the decrease in net position are the increase in patent deferred revenue discussed previously and the subsequent decrease in earned revenue coupled with the timing difference in the collection of patent maintenance fees between FY 2020 and FY 2021.





⁴ Effective October 2, 2020.

⁵ Effective January 2, 2021.

STATEMENT OF NET COST

The Statement of Net Cost (see page 146) presents the USPTO's results of operations by the following responsibility segments: Patent; Trademark; and Intellectual Property Policy, Protection and Enforcement Worldwide. Table 5 presents the USPTO's total results of operations for the past five fiscal years. In FY 2021, the USPTO generated a net cost of \$243.0 million. The net cost increased due to the decrease in earned fee collections, offset by a smaller increase in program costs.

TABLE 5: **NET INCOME/(COST)**

Net Income/(Cost) (dollars in millions)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Earned Revenue	\$ 3,105.3	\$ 3,309.4	\$ 3,388.7	\$ 3,657.1	\$ 3,384.4
Program Cost	(3,193.4)	(3,321.5)	(3,478.2)	(3,623.0)	(3,627.4)
Net Income/(Cost)	\$ (88.1)	\$ (12.1)	\$ (89.5)	\$ 34.1	\$ (243.0)

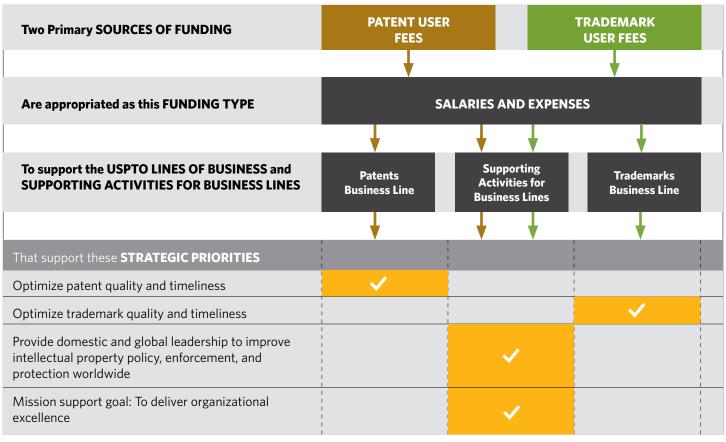
The Statement of Net Cost compares earned fees to costs incurred during a specific period of time. It is not necessarily an indicator of net income or net cost over the life of a patent or trademark. Net income or net cost for the fiscal year is dependent upon work that has been completed over the various phases of the production life cycle. The net income calculation is based on earned fees during the fiscal year being reported, regardless of when those fees were collected. Maintenance fees play a large part in whether a total net income or net cost is recognized, as these fees are considered earned immediately. Maintenance fees collected in FY 2021 are a reflection of the number of patents issued 3.5, 7.5, and 11.5 years ago that customers have elected to renew, rather than a reflection of patents issued in FY 2021. Trademark renewal fees are the reflection of trademarks registered between nine and 10 years ago, 19 and 20 years ago, 29 and 30 years ago, etc. These fees can have a significant impact on matching costs and revenue for the purpose of the Statement of Net Cost.

EARNED REVENUE

The USPTO's earned revenue is derived from the fees collected for patent and trademark products and services. Fee collections are recognized as earned revenue when the activities to accomplish the work associated with the fee are completed.

Figure 9 shows the USPTO funding resources and how they are used to deliver on the mission of the USPTO, thereby recognizing earned revenue.

FIGURE 9: USPTO RESOURCES AND HOW THEY ARE USED



Earned revenue totaled \$3,384.4 million for FY 2021, a decrease of \$272.7 million, or 7.5%, from FY 2020 earned revenue of \$3,657.1 million. This significant decrease was the result of a shift in the timing of fee collections from FY 2021 to FY 2020, caused by some customers opting to pay certain patent fees early. These early patent fee collections resulted in an estimated \$266 million in maintenance fees paid before the patent fee increase went into effect on October 2, 2020. Patent maintenance fees are considered earned at the time of payment, which explains most of the decrease in earned revenue from FY 2020 to FY 2021. Of the revenue earned during FY 2021, \$751.7 million was related to fees collected in a prior fiscal year, with the associated work performed during FY 2021; \$1,392.7 million was related to maintenance fees collected during FY 2021, and those fees were considered earned immediately at the time of receipt; \$1,238.7 million was from fees collected and work performed during FY 2021; and \$1.3 million was from other reimbursable amounts.



FIGURE 10: **FY 2021 Earned Revenue** (dollars in millions)

PATENT

During FY 2021, the total number of serialized (new) patent filings decreased by 0.1% from the prior year. In addition, the total number of request for continuations (RCEs) decreased by 6.5%. These relatively small decreases would have resulted in only a small decrease in earned revenue; however, increased fee rates associated with the most recently filed applications and an increase in first action pendency caused a larger increase to patent deferred revenue, resulting in a larger decrease in earned revenue. This was further impacted by the increase in patent fee rates, effective October 2, 2020, that incentivized fee payers to pay early and increased total fee collections in FY 2020, which resulted in a shift in earned revenue across the two fiscal years. Many customers who were eligible opted to pay maintenance fees before the fee increase took effect, resulting in increased patent maintenance fee collections in late FY 2020 and decreased patent maintenance fee collections and earned revenue in early FY 2021.

Traditionally, the major components of earned revenue derived from patent operations are maintenance fees; initial application fees for filing, search, and examination; and issue fees. These fees account for approximately 85.6% of total patent income. Figure 11 depicts the share of patent revenue comprised by the most significant patent fee types.

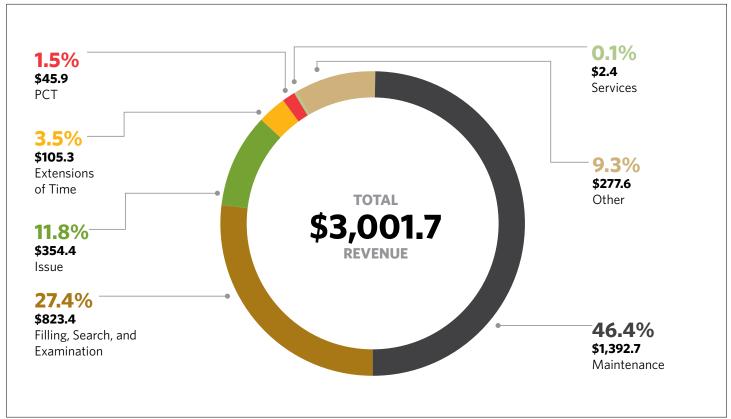


FIGURE 11: FY 2021 PATENT EARNED REVENUE BY FEE TYPE (dollars in millions)

Patent maintenance fees are the largest source of earned revenue by fee type. During FY 2021, maintenance fee collections decreased \$270.6 million, or 16.3%, from FY 2020, due to the payments made prior to the October 2, 2020, fee increase noted previously.

In order to maintain exclusive rights, a patent holder must pay maintenance fees at three separate stages: 3.5, 7.5, and 11.5 years from the date a patent is issued. Failure to pay these fees results in the lapse of patent protection, and the rights provided by a patent are no longer enforceable. Maintenance fees can be paid during the "window period," the six-month period preceding each due date. It is this window period that enables certain customers to pay these fees ahead of fee rate changes. Additionally, a maintenance fee can be paid, with a surcharge, during the "grace period," which is the six-month period immediately following each due date. If a maintenance fee has not been paid in a timely manner and the owner of the patent wants to have the patent rights reinstated, a petition and proper fees are required. Maintenance fees are recognized immediately as earned revenue, and fluctuations in both the timing of renewal payments and the rates of renewal may have a significant impact on the total earned revenue of the USPTO. Table 6 shows the renewal rates for all three stages of maintenance fees based on the year the patent was issued.

Maintenance fee payments are needed to fund operations (the revenue from renewals helps to recoup costs incurred during the initial patent application process); therefore, the USPTO closely monitors payment behaviors (both rates of renewal and timing of payment) to forecast maintenance fee revenue. The payment window for some patents issued in 2017 (first stage), 2013 (second stage), and 2009 (third stage) has not yet closed. Using the data available at the end of FY 2021, the first stage patent renewal rate is slightly less than last year, with a yearly renewal rate 0.8% below the previous year. However, the previous year's renewal rates with a complete calendar year of information are stable. When looking at the second stage patent renewal rate thus far, the yearly renewal rate is 0.7% below the previous year. Finally, when looking at the third stage patent renewal rate, thus far, the yearly renewal rate is 1.1% below the previous year. It is important to note that these differences will be reduced as additional payments are received during the final three months of the grace period. The decision to renew a patent is influenced by many factors, including, but not limited to, federal court decisions, IP budgets, the perceived value of the patent, the USPTO's fee rates, and the economy. The USPTO closely monitors trends associated with renewal rates, especially as they impact future revenue estimates. Although some renewal rates have decreased slightly, the number of patents eligible for renewal has increased significantly, which is forecasted to result in overall increases in fee collections and earned revenue associated with patent maintenance fees.

TABLE 6: PATENT RENEWAL RATES ISSUE CALENDAR YEAR

Patent Renewal Rates Issue Calendar Year	First Stage	Second Stage	Third Stage
2000	85.6%	68.6%	51.1%
2001	86.2%	68.0%	50.3%
2002	87.5%	67.4%	47.7%
2003	88.6%	69.4%	48.0%
2004	88.7%	70.8%	47.4%
2005	87.5%	69.3%	46.0%
2006	86.0%	67.5%	44.3%
2007	87.4%	67.5%	44.4%
2008	88.1%	66.9%	42.8%
2009	87.3%	66.5%	41.7%*
2010	86.5%	66.0%	
2011	85.7%	64.9%	
2012	85.7%	64.6%	
2013	86.1%	63.9%*	
2014	86.4%		
2015	86.5%		
2016	86.1%		
2017*	83.5%*		

Note: The First Stage refers to the end of the 4th year after the initial patent is issued; the Second Stage refers to the end of the 8th year after the initial patent is issued; and the Third Stage refers to the end of the 12th year after the initial patent is issued. For example, 85.3% of the patents issued in 2017 paid the first stage maintenance fee.

^{*} Preliminary data. The data in this table is through September 30, 2021 and the 1st stage payment window for some patents issued in 2017, 2nd stage renewals for patent issued in 2013, and 3rd stage renewals for patents issued in 2009, does not close until December 31, 2021. The full calendar year data for 2017, 2013, and 2009 will be available in the FY 2022 PAR. Past year's data has been revised from prior year reports

Application fee revenue earned upon filing increased slightly from \$94.8 million in FY 2020 to \$100.0 million in FY 2021 (increase of 5.5%) due to the fee rate increase and despite the number of serialized (new) application filings decreasing from 450,910 to 450,457 over the same period (decrease of 0.1%). At the same time and in line with the proactive steps the USPTO has taken to reduce the need for RCEs, RCE filings decreased from 154,962 to 144,941 (decrease of 6.5%) during this same period. Recent estimates that begin to incorporate the pandemic's effect on demand indicate that serialized patent application filings will gradually increase in FY 2022 through FY 2026, which will contribute to continued budgetary resources, as well as earned fee revenue.

Earned issue fee revenue increased from \$330.6 million in FY 2020 to \$354.4 million in FY 2021 (increase of 7.2%), despite the number of patents issued decreasing from 399,055 to 368,803 over the same period (decrease of 7.6%). The increase in earned issue fee revenue is in line with the increase in patent fee rates, effective October 2, 2020. Historically, while the number of patents issued in a given year may rise or fall, the general trend has been an increase given the overall growth in invention and innovation, which tends to result in increases in maintenance fees in future years.

TRADEMARK

During FY 2021, the number of trademark applications increased by 27.9% over the prior year. The increase in trademark deferred revenue of \$89.5 million (and resultant decrease in earned revenue) was less than the offsetting increase in revenue earned from increases in application filings, trademark balanced disposals, and fee rates that were effective on January 2, 2021.

Trademark fees are comprised of application filing, maintaining exclusive rights (post-registration, to include renewals), services, and TTAB fees. Additional fees are charged for intent-to-use filed applications, as additional requirements must be met for registration. The accompanying figure depicts the relationship among the most significant trademark fee types.

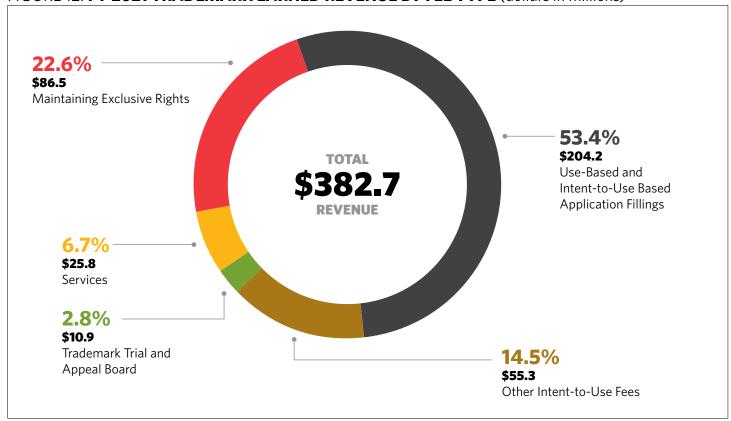


FIGURE 12: FY 2021 TRADEMARK EARNED REVENUE BY FEE TYPE (dollars in millions)

Earned revenue for trademark filings increased from \$178.3 million in FY 2020 to \$204.2 million in FY 2021, with the number of trademarks registered increasing from 400,298 to 434,810 over the same period, an increase of 14.5% and 8.6%, respectively. The increase in earned revenue is partially attributed to the large increase in filings driven, in part, by the unprecedented levels of fiscal and monetary stimuli issued by governments around the world in response to the COVID-19 pandemic. A slight correction in trademark filings occurred in FY 2021 in response to the FY 2020 filing surge. The correction is forecasted to level off during FY 2022, with a return to more moderate historical positive growth rates.

Maintaining exclusive rights for trademark registrations is a recurring source of revenue. To some extent, renewal fees offset costs incurred during the initial examination process (though the Trademarks business line is less dependent on renewal fees than the Patents business line is on maintenance fees). As shown in the accompanying table, the renewal rates for trademarks have declined slightly over the last several years. In general, fewer post-registration maintenance filings are made by pro se and foreign registrants, which comprise a growing share of new applicants. Based on recent trends that began pre-pandemic, the overall percentage of registrations being maintained is decreasing. Even accounting for these decreases, however, renewals remain a source of continued earned revenue.

TABLE 7: TRADEMARK RENEWAL RATES

Trademark Renewal Rates*	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021⁵
Renewals	31.1%	30.6%	30.1%	26.3%	22.8%

^{*}Note: the renewals occur every 10th year for registered trademarks. For example, in FY 2021, 22.8% of the trademarks registered ten years ago were renewed.

PROGRAM COSTS

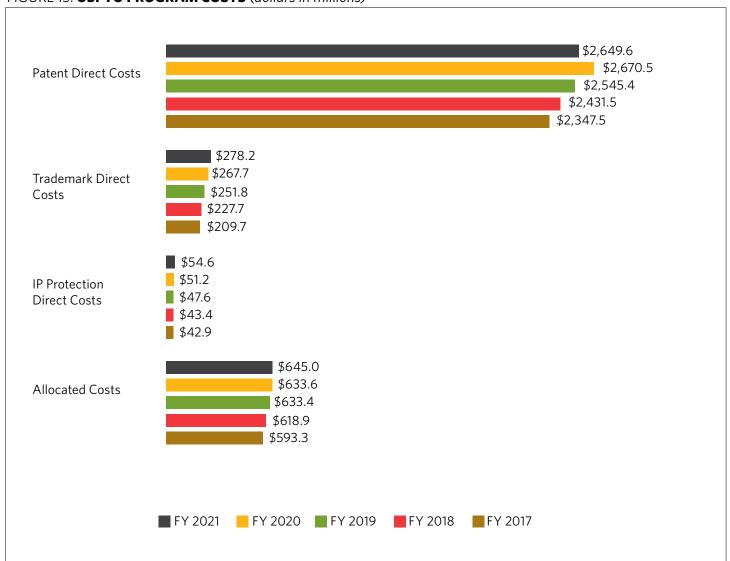
Program costs totaled \$3,627.4 million for FY 2021, an increase of \$4.4 million, or 0.1%, over FY 2020 program costs of \$3,623.0 million. The USPTO's most significant program cost is personnel services and benefits, which comprises approximately 69.7% of the USPTO's total program costs. Any significant change or fluctuation in staffing or pay rate directly impacts the change in total program costs from year to year. Total direct and allocated personnel services and benefits costs for FY 2021, were \$2,529.1 million, an increase of \$68.1 million, or 2.8%, over FY 2020 personnel services and benefits costs of \$2,461.0 million. This change primarily reflects an increase in payroll compensation and benefit costs resulting from salary increases (e.g., congressionally mandated pay raises), as well as a slight increase in personnel, from 12,928 at the end of FY 2020 to 12,963 at the end of FY 2021.

⁵ Preliminary data.

The most significant decrease in program costs was seen in contractual services. As the USPTO continues to modernize and invest in its IT products (system and software development activities, discussed previously on page 36), the IT contractual costs decreased for operations and maintenance support for the suite of IT products in the Patent, Trademark, Enterprise Business, and Enterprise Infrastructure product lines. As the USPTO replaces legacy systems with more scalable, reliable, and resilient products, the agency is realizing cost savings.

In setting its annual spending plans, the USPTO maximizes resources directed to its mission areas. For FY 2021, costs directly attributable to the Patents, Trademarks, and IP protection business areas represent 82.8% of total USPTO costs. The remaining costs, representing support costs, are allocated from the executing business areas to the mission areas using activity-based cost accounting.

FIGURE 13: **USPTO PROGRAM COSTS** (dollars in millions)



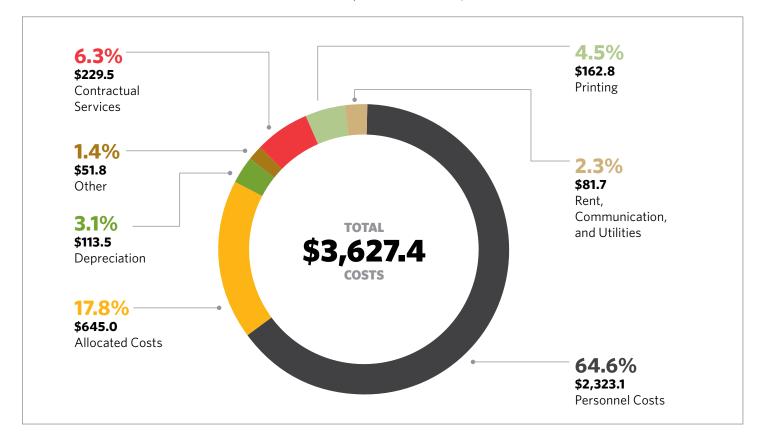
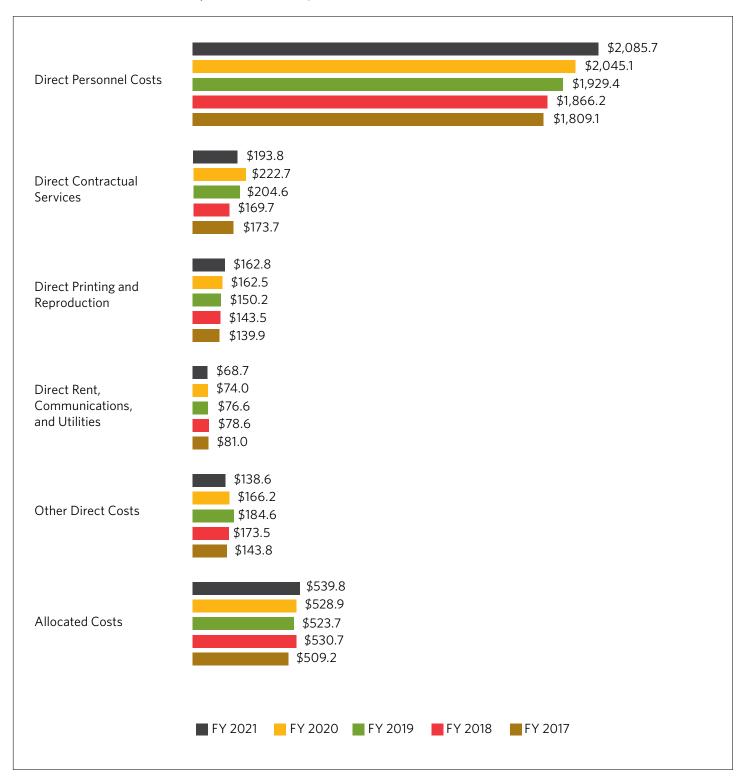


FIGURE 14: **FY 2021 USPTO PROGRAM COSTS** (dollars in millions)

PATENT

Total costs for the Patents program increased \$332.7 million, or 11.6%, from FY 2017 through FY 2021. The Patents organization's most significant direct program costs relate to personnel services, which account for 83.1% of the increase in the total direct cost of Patents operations during the past four years. Patents personnel costs for FY 2021, were \$2,085.7 million, an increase of \$40.6 million, or 2.0%, over FY 2020 personnel costs of \$2,045.1 million. This change primarily reflects an increase in payroll compensation and benefit costs resulting from salary increases, as well as a slight net decrease of 17 personnel, from 10,192 at the end of FY 2020 to 10,175 at the end of FY 2021. Direct Patents contractual services costs were \$193.8 million, a decrease of \$28.9 million, or 13.0%, from FY 2020 contractual service costs of \$222.7 million. This change is primarily reflective of IT contractual cost decreases for operations and maintenance support for the suite of IT products in the Patent Product Line, to include Patent Exam Center, PTAB Center, and Patent Business and Content Management Services. As the USPTO replaces legacy systems with more scalable, reliable, and resilient products, the agency is also realizing cost savings in the form of decreased depreciation expense (included in other direct costs in Figure 15).

FIGURE 15: **PATENT COSTS** (dollars in millions)



Patents costs were predominantly spread over two patent products: utility patents and international applications, called 371 filings. The cost percentages presented are based on direct and indirect costs allocated to Patents operations.

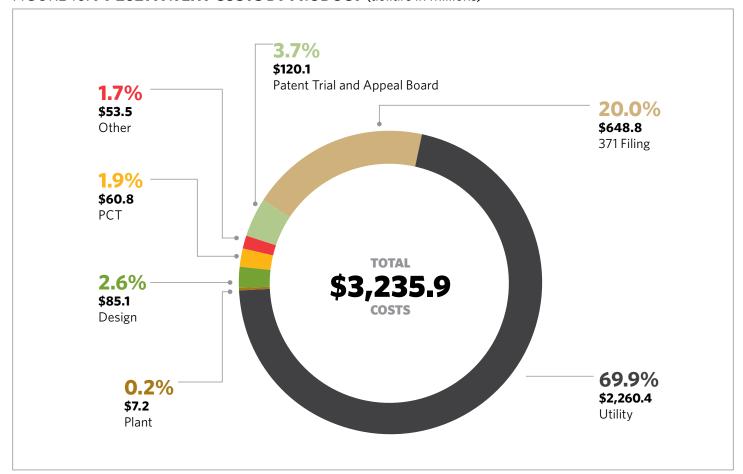
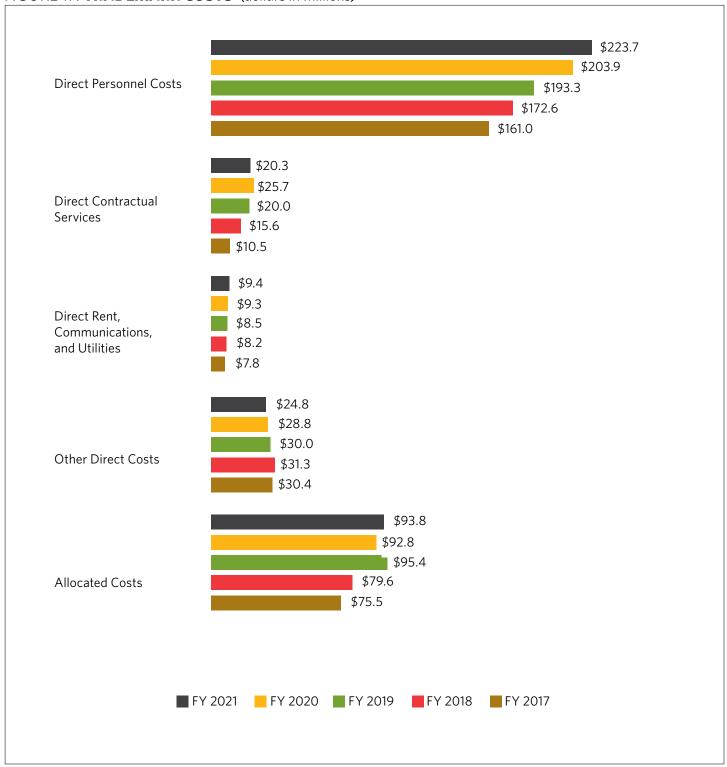


FIGURE 16: FY 2021 PATENT COSTS BY PRODUCT (dollars in millions)

TRADEMARK

Total costs for the Trademarks program increased \$86.8 million, or 30.4%, from FY 2017 through FY 2021. The Trademarks organization's most significant direct program costs relate to personnel services, and account for 72.7% of the increase in the total direct cost of Trademarks operations during the past four years. Trademarks personnel costs for FY 2021, were \$223.7 million, an increase of \$19.8 million, or 9.7%, over FY 2020 personnel costs of \$203.9 million. This change primarily reflects an increase in payroll compensation and benefit costs resulting from salary increases, as well as an increase of 59 personnel, from 950 at the end of FY 2020 to 1,009 at the end of FY 2021. Direct Trademarks contractual services costs were \$20.3 million, a decrease of \$5.4 million, or 21.0%, over FY 2020 contractual service costs of \$25.7 million. This change is primarily reflective of IT contractual cost decreases for operations and maintenance support for the suite of IT products in the Trademark Product Line, to include TEAS. As the USPTO replaces legacy systems with more scalable, reliable, and resilient products, the agency is also realizing cost savings in the form of decreased depreciation expense (included in other direct costs in Figure 17).

FIGURE 17: TRADEMARK COSTS (dollars in millions)



The overall cost percentages presented are based on both direct costs and indirect costs allocated to Trademarks operations.

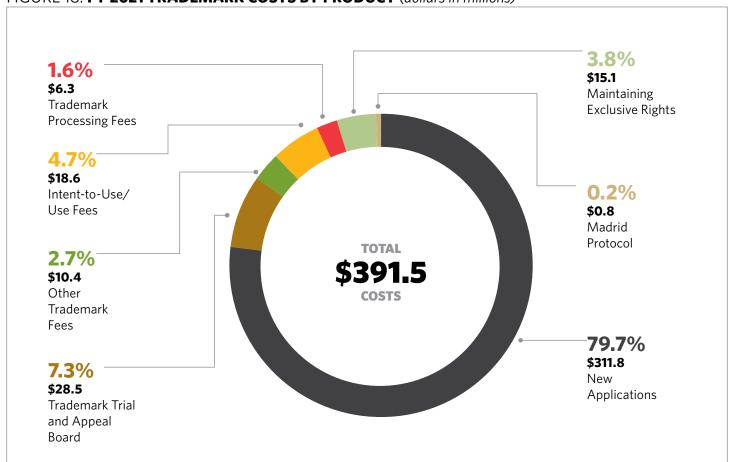


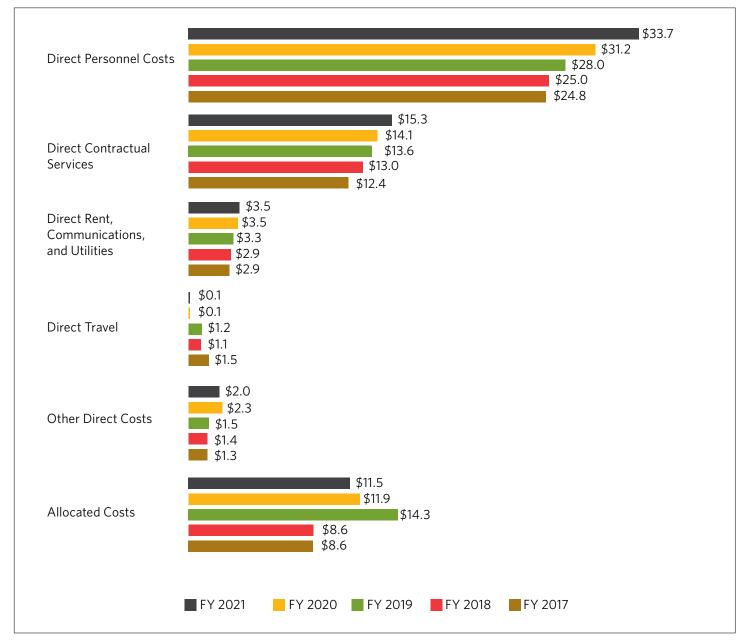
FIGURE 18: FY 2021 TRADEMARK COSTS BY PRODUCT (dollars in millions)

INTELLECTUAL PROPERTY POLICY, PROTECTION, AND **ENFORCEMENT WORLDWIDE**

Total costs for the IP Policy, Protection, and Enforcement Worldwide Program increased \$14.6 million, or 28.3%, from FY 2017 through FY 2021. The most significant direct program costs in FY 2021 relate to personnel services, and account for 51.0% of the total cost for operations. For FY 2021, the program costs increased from \$63.1 million at the end of FY 2020 to \$66.1 million, an increase of \$3.0 million, or 4.7%. These costs were incurred in line with the activities discussed on pages 96-110.

FIGURE 19: INTELLECTUAL PROPERTY POLICY, PROTECTION, AND

ENFORCEMENT COSTS (dollars in millions)



STATEMENT OF BUDGETARY RESOURCES

During FY 2021, total budgetary resources available for spending were 3.5% greater than the amount available in the preceding year, with a 23.2% increase over the past four fiscal years. The change in budgetary resources available for use is depicted by the accompanying figure. The amount of budgetary resources in any given year is directly related to the demand for the USPTO's services, as manifested in the number of applications filed and IP rights renewed during the fiscal year, and the availability of agency operating reserves, including amounts deposited in the PTFRF. The operating reserves allow the USPTO to plan for long-term financial stability and temporary changes in its cash flow. In FY 2021, the fee collection budgetary resources decreased slightly despite an increase in trademark application filings. The

increase in trademark fee collections was offset by a decrease in patent fee collections, largely due to the shift in the timing of collections that occurred in FY 2020 that would otherwise have occurred in FY 2021. The primary driver for the FY 2021 increase in budgetary resources is a combination of the operating reserves and deposits in the PTFRF that were brought forward and reprogrammed from FY 2020.

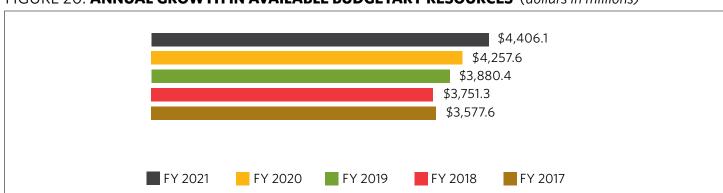


FIGURE 20: ANNUAL GROWTH IN AVAILABLE BUDGETARY RESOURCES (dollars in millions)

The USPTO was provided appropriation authority to spend anticipated fee collections in FY 2021 for an amount up to \$3,695.3 million. In FY 2021, however, the USPTO did not collect the entire amount of anticipated fee collections appropriated; patent and trademark fee collections amounted to \$3,625.0 million (see Sources of Funds figure). Prior to 2012, when the USPTO was not appropriated the authority to spend all fees collected, the excess was recognized as temporarily unavailable fee collections. The AIA established a statutory provision allowing the USPTO to deposit in the PTFRF fees collected in excess of the appropriated levels for each fiscal year. The USPTO deposited \$215.5 million in patent fee collections and \$16.4 million in trademark fee collections in the PTFRF at the end of FY 2020. The FY 2020 appropriation provided the authorization for the USPTO to spend those fees without further appropriation, subject to reprogramming requirements; those fees are available without fiscal limitation until expended. After working through the reprogramming process with congressional appropriators, the USPTO was given the ability to spend these funds on March 1, 2021, and they were transferred into the agency's regular spending account and used in FY 2021 for normal operating expenses (as evident in Figures 21 and 22).

The USPTO frequently reviews and analyzes operational and global economic data to assess whether there is a need to adjust the patent and trademark fee schedules. The fee schedules are designed to achieve the agency's financial and operational targets, while recovering the aggregate costs of USPTO operations. The process to review, analyze, and set fees typically takes at least two years to complete. The USPTO started a patent and trademark biennial fee review during FY 2020 and will assess the need for and timing of future fee schedule changes to efficiently recover aggregate operating costs.

Figures 21 and 22 present the budgetary resources made available to the USPTO in FY 2021, and the use of such funds representing FY 2021 total obligations incurred and the operating reserve, as reflected on the Statement of Budgetary Resources.

FIGURE 21: FY 2021 SOURCES OF FUNDS (dollars in millions)

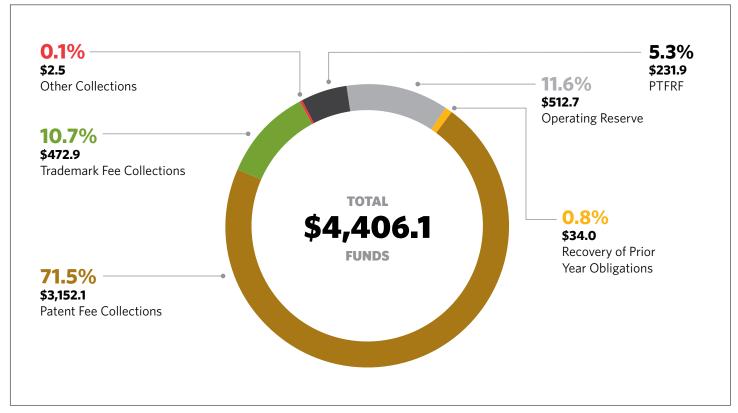


FIGURE 22: FY 2021 USES OF FUNDS (dollars in millions)

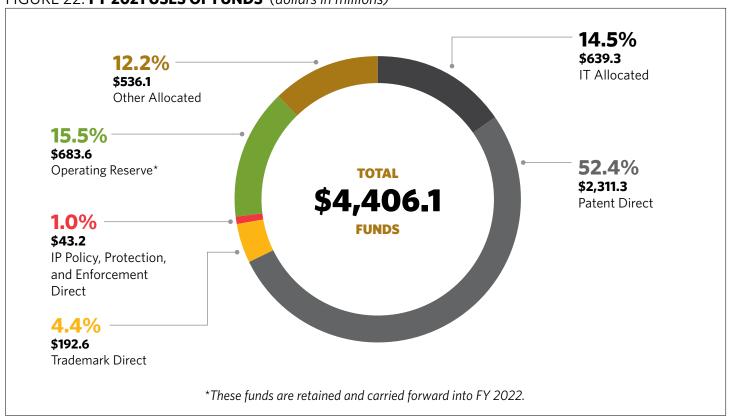


Table 8 illustrates the amounts of fees that Congress has appropriated to the USPTO for spending over the past five fiscal years, as well as the cumulative unavailable fee collections.

TABLE 8: TEMPORARILY UNAVAILABLE FEE COLLECTIONS

FY 2017		FY 2018		FY 2019		FY 2020		FY 2021
\$ 3,078.9	\$	3,337.4	\$	3,398.7	\$	3,682.6	\$	3,625.0
(3,078.9)		(3,337.4)		(3,398.7)		(3,682.6)		(3,625.0)
\$ -	\$	-	\$	-	\$	-	\$	-
937.8		937.8		937.8		937.8		937.8
\$ 937.8	\$	937.8	\$	937.8	\$	937.8	\$	937.8
233.5		233.5		233.5		233.5		233.5
\$ 1,171.3	\$	1,171.3	\$	1,171.3	\$	1,171.3	\$	1,171.3
\$ 	\$ - 937.8 \$ 937.8 \$ 233.5	\$ 3,078.9 \$ (3,078.9) \$ \$ \$ 937.8 \$ \$ 233.5	\$ 3,078.9 \$ 3,337.4 (3,078.9) (3,337.4) \$ - \$ - 937.8 937.8 \$ 937.8 \$ 937.8 233.5 233.5	\$ 3,078.9 \$ 3,337.4 \$ (3,078.9) (3,337.4) \$ - \$ - \$ 937.8 937.8 \$ 937.8 \$ 233.5	\$ 3,078.9 \$ 3,337.4 \$ 3,398.7 (3,078.9) (3,337.4) (3,398.7) \$ - \$ - \$ - 937.8 937.8 937.8 \$ 937.8 \$ 937.8 \$ 937.8 \$ 233.5 233.5 233.5	\$ 3,078.9 \$ 3,337.4 \$ 3,398.7 \$ (3,078.9) (3,337.4) (3,398.7) \$ - \$ - \$ - \$ 937.8 937.8 937.8 \$ \$ 937.8 \$ 937.8 \$ 937.8 \$ \$ 233.5 233.5 233.5 233.5	\$ 3,078.9 \$ 3,337.4 \$ 3,398.7 \$ 3,682.6 (3,078.9) (3,337.4) (3,398.7) (3,682.6) \$ - \$ - \$ - \$ - 937.8 937.8 937.8 937.8 \$ 937.8 \$ 937.8 \$ 937.8 \$ 937.8 233.5 233.5 233.5 233.5	\$ 3,078.9 \$ 3,337.4 \$ 3,398.7 \$ 3,682.6 \$ (3,078.9) (3,337.4) (3,398.7) (3,682.6) \$ - \$ - \$ - \$ 937.8 937.8 937.8 937.8 \$ 937.8 \$ 937.8 \$ 937.8 \$ 937.8 \$ 233.5 233.5 233.5 233.5

Since FY 2013, the USPTO has not collected any fees that were designated as temporarily unavailable. As a result, the USPTO maintained a \$937.8 million balance of temporarily unavailable fee collections during FY 2021 (shown above as "Prior year collections unavailable"). In addition to the temporarily unavailable balances, collections of \$233.5 million are unavailable, in accordance with the OBRA of 1990, and deposited in a special fund receipt account at the U.S. Department of the Treasury (Treasury). These cumulative unavailable fee collections remain in the USPTO's general fund account at the Treasury until appropriated for use by Congress. These amounts are not reflected in the USPTO's Statement of Budgetary Resources, but are included on the Balance Sheet as part of the agency's Fund Balance with Treasury.

LIMITATION ON FINANCIAL STATEMENTS

The principal financial statements included in this report have been prepared by USPTO management to report the financial position and results of operations of the USPTO, pursuant to the requirements of 31 U.S.C. § 3515(b). While the statements have been prepared from the books and records of the USPTO in accordance with the Generally Accepted Accounting Principles (GAAP) for federal entities and the formats prescribed in OMB Circular A-136 (revised), the statements are in addition to the financial reports used to monitor and control budgetary resources, which are prepared from the same books and records. The statements should be read with the understanding that they are for a component of the U.S. government, a sovereign entity.

MANAGEMENT RESPONSIBILITIES

USPTO management is responsible for the fair presentation of information contained in the principal financial statements, in conformity with GAAP, the requirements of OMB Circular A-136, and guidance provided by DOC. Management is also responsible for the fair presentation of the USPTO's performance measures, in accordance with OMB requirements. The quality of the USPTO's internal control rests with management, as does the responsibility for identifying and complying with pertinent laws and regulations.



INTRODUCTION TO THE USPTO'S PERFORMANCE GOALS AND **RESULTS**

The Performance Information section discusses in detail the USPTO's performance results. The section is organized by the objectives that fall under each strategic goal in the USPTO 2018-2022 Strategic Plan. FY 2021 was the third year that the USPTO has operated under this plan. The USPTO strategic performance framework, provided in the Performance Highlights section of Management's Discussion and Analysis in this PAR, is designed to strengthen the capacity of the agency by focusing on a specific set of goals and the objectives the agency must concentrate on to accomplish them. These objectives include:

- Optimizing patent and trademark application pendency
- Issuing highly reliable patents
- Issuing high-quality trademarks
- Fostering business effectiveness
- Enhancing the operations of the PTAB and the TTAB
- Providing leadership for and education on domestic and international IP policy and awareness
- Enhancing human capital management and fostering employee engagement
- Optimizing the speed, quality, and cost-effectiveness of IT delivery
- Ensuring financial stability for effective operations
- Enhancing interactions with internal and external stakeholders and the public

These steps also support DOC's plan to accelerate American leadership, enhance job creation, strengthen U.S. economic and national security, fulfill constitutional requirements, and deliver customer-centric service excellence.

PERFORMANCE AUDITS AND EVALUATIONS

The OIG completed and issued four final audit reports in FY 2021 for the USPTO. The OIG issued 26 recommendations in these reports for USPTO corrective actions to mitigate the audit findings. The USPTO concurred with all recommendations and began or has taken steps to address the recommendations. There were no GAO final reports issued during this period.

The first report, "USPTO Should Improve Acquisition Planning and Vendor Performance Management to Prevent Schedule Delays and Unnecessary Costs Related to the Software Development and Integration Next Generation (SDI-NG) Contract," Final Report No. OIG-21-010-A (www.oig.doc.gov/OIGPublications/OIG-21-010-A.pdf), found that the USPTO did not timely plan and compete a follow-on SDI-NG contract and did not adequately document and use vendor performance information. The OIG issued nine recommendations to mitigate these findings.

The USPTO has completed reviews of existing procurement policies and determined that the current policies fully address the OIG's recommendations. The USPTO issued a new policy to restrict the period of performance for orders to no more than 12 months after the expiration date of the base indefinite delivery vehicle to discourage the use of bridge contracts. The USPTO also created an Acquisition Team to better develop strategies, timelines, and risk mitigation associated with each procurement, with continuous conversations between the Contracting Officer and the Acquisition Team. Past performance will be documented prior to exercising options to ensure each option is in the best interest of the USPTO. Additionally, the USPTO developed a comprehensive vendor performance evaluation dashboard that aggregates vendor performance information in the OCIO Vendor Management Division's vendor performance monitoring tools.

Currently, the USPTO has one open planned corrective action: The agency will review and update existing acquisition file documentation to incorporate changes to the form necessitated by reviews of and revisions to other Office of Procurement (OP) policies. A Tiger Team was formed to update not only the past performance section of the acquisition file documentation form, but also the document as a whole to fit current OP needs for internal documentation.

The second report, "The PTAB Faces Operational, Information Technology, and Data Risks," Final Report No. OIG-21-025-I (www.oig.doc.gov/OIGPublications/OIG-21-025-I.pdf), found the PTAB End-to-End IT system does not fully meet the users' needs, the PTAB lacks effective data management, the *Arthrex* decision threatens retention and recruitment, and the PTAB lacks sustainable staffing projection capabilities. The OIG issued four recommendations to mitigate these findings

The USPTO planned corrective actions are:

- 1. The PTAB will create a Lead Product Owner position that is consistent with the OCIO New Ways of Working (NWOW) initiative and that reports to a PTAB senior executive.
- The PTAB Chief Judge and Deputy Chief Judge will determine the viability of implementing the comprehensive data quality and governance program recommendation and recommended best practices.

3. The PTAB will work with the OCIO to review the current Operations Management Model to identify requirements for an alternative case management system. As a result of the U.S. Supreme Court decision in *United States v. Arthrex, Inc.,* which corrected the Appointments Clause defect, OIG recommendation 3 was rendered obsolete.

The third report, "USPTO Has Opportunities to Improve Its Internal Controls and Oversight Related to PTA and PTE Calculations," Final Report No. OIG-21-030-I (www.oig.doc.gov/OIGPublications/OIG-21-030-I.pdf), found the USPTO uses valid and reliable data to calculate PTA, but manual data entry may introduce errors; the USPTO calculates PTA and PTE in compliance with statutes, regulations, and case law; and the USPTO has adequate internal controls to ensure proper calculation of PTA and PTE. The OIG issued six recommendations in response to these findings.

The USPTO's planned corrective actions are:

- 1. Publish a notice of proposed rulemaking regarding requiring the use of the "safe harbor" form PTO/SB/134 to claim the exception under 37 CFR § 1.704 (d).
- 2. Create a PTA-PTE Standard Operating Procedure (SOP) and include the identifying events that necessitate updates to the PTA calculator software, such as changes in regulations, case law, and input from the PTA exception events team.
- 3. Work with the U.S. Food and Drug Administration and the United States Department of Agriculture to determine whether the current e-filing of PTE applications at the USPTO will be an acceptable permanent practice in the future.
- 4. Complete a feasibility study regarding the implementation of a workflow process or tool for managers of Legal Instrument Examiners.
- 5. Create a PTA-PTE SOP that will include the identifying events requiring manual review of the PTA calculation process based on feedback from petitions, public inquiries, internal samplings, and other sources of remedial updates.
- 6. Determine the requisite sample size for and manner of conducting a PTA calculation review to provide a statistically valid random review.

The fourth report, USPTO Should Improve Controls over Examination of Trademark Filings to Enhance the Integrity of the Trademark Register, Final Report No. OIG-21-033-A, (www.oig.doc.gov/OIGPublications/OIG-21-033-A.pdf), found overall, the USPTO trademark registration process was not effective in preventing fraudulent or inaccurate registrations. Specifically, the report found the USPTO lacks controls to effectively enforce the U.S. counsel rule, approved trademark filings with digitally altered or mocked-up specimens, did not ensure accurate identification of goods and services, and lacks a comprehensive fraud risk strategy. The OIG issued seven recommendations to mitigate these findings.

The USPTO's planned corrective actions are:

1. Implement an automated query in the trademark systems that will identify post office boxes and "care of" addresses and that will flag the issue for the assigned examining attorney to take appropriate action under the examination rules.

2. Draft an SOP to:

- » Identify investigations in which an attorney of record appears to be participating in a significant number of suspicious filings.
- » Identify the type and amount of evidence necessary for referral to the USPTO's Office of Enrollment and Discipline.
- » Determine the appropriate audience and process for referral to the USPTO's Office of Enrollment and Discipline.
- 3. Form a working group to consider measures that would improve specimen examination.
- 4. Implement a process using the Administrator Console feature in the trademark database systems to identify and quarantine groups of applications with suspicious data for investigation before they are assigned to an examining attorney.
- 5. Provide appropriate guidance on what constitutes a "wide" range of unrelated goods for which an examining attorney should take action under section 904.01(a).
- 6. Document Trademarks' risk framework, including its risk profile, goals, and targets, through the agency's Enterprise Risk Management (ERM) Scorecard, which is updated quarterly.
- 7. Modify the Office of Trademark Quality Review and Training's (OTQRT) database to create a workflow that will allow managers to input quality review data directly.

PERFORMANCE DATA VERIFICATION AND VALIDATION

Per the requirements of the GPRA Modernization Act of 2010, the USPTO is committed to ensuring that the performance information it reports is complete, accurate, and consistent. The USPTO developed a strategy for validating and verifying the quality, reliability, and credibility of its performance results, as discussed below.

ACCOUNTABILITY: The responsibility for providing performance data lies with the managers of USPTO programs, who are accountable for making certain that procedures are in place to ensure that data is accurate and performance measurement sources are complete and reliable.

QUALITY CONTROL: With the support of IT products, USPTO program managers monitor and maintain automated systems and databases that collect, track, and store performance indicators. Each system, such as the Patent Application Locating and Monitoring (PALM) system or the Trademark Reporting and Application Monitoring system, incorporates internal program edits to control the accuracy of supporting data. Program managers evaluate data for reasonableness, consistency, and accuracy. Cross-checks, among other internal, automated systems, also provide assurances of data reasonableness and consistency. In addition to the internal monitoring of each system, experts from outside the business units routinely monitor the data collection methodology. At the USPTO, the OCFO is responsible for monitoring the agency's performance, providing direction on and support for data collection methodology and analysis, ensuring that data quality checks are in place, and reporting performance management data.

DATA ACCURACY: The USPTO verifies and validates performance measures periodically to ensure quality, reliability, and credibility. At the beginning of each fiscal year and at various points throughout the reporting or measurement period, sampling techniques and sample counts are reviewed and adjusted to ensure that data is statistically reliable for making inferences about the population. Data analyses, including the identification of statistically significant trends and underlying factors that may impact a specific performance indicator, are also conducted to assist the business units in interpreting program data.

COMMISSIONERS' PERFORMANCE FOR FY 2021

The AIPA, title VI, subtitle G, also known as the Patent and Trademark Office Efficiency Act, requires the establishment of annual performance agreements between the Commissioner for Patents and the Commissioner for Trademarks, respectively, and the Secretary of Commerce. The Commissioners for Patents and Trademarks each have FY 2021 performance agreements with the Secretary of Commerce that outline the measurable organizational goals and objectives for which they are responsible. They may be awarded a bonus (of up to 50% of their base salary, so long as it does not exceed the aggregate salary limitation that is equivalent to the Vice President's salary) based on a performance evaluation defined in the agreement. The results achieved in FY 2021 are documented in this report in the performance information for Strategic Goals I and II. FY 2021 bonus information was not available when this report was published, but it will be included in next year's PAR. For FY 2020, the Commissioner for Patents received a bonus of 28.4% of the base salary. The Commissioner for Trademarks received a bonus of 6.3% of the base salary.

Patents STRATEGIC GOAL I

WHAT IS A PATENT?

A patent is an IP right granted by the government of the United States to an inventor "to exclude others from making, using, offering for sale, or selling the invention throughout the United States, or importing the invention into the United States" for a limited time in exchange for public disclosure of the invention. There are three types of patents: utility, design, and plant.

- Utility patents may be granted to anyone who invents or discovers any new and useful process, machine, Article of Manufacture, or composition of matter or any new and useful improvement thereof.
- Design patents may be granted to anyone who invents a new, original, and ornamental design for an Article of Manufacture.
- Plant patents may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.

For a detailed look at the patent application examination process, please visit **the Patent process overview** webpage on the USPTO website.

STRATEGIC GOAL I:

OPTIMIZE PATENT QUALITY AND TIMELINESS

The USPTO is dedicated to its mission to deliver "high quality and timely examination of patent applications" per laws, regulations, and practices and in a fashion that is consistent with the goals and objectives in the USPTO 2018-2022 Strategic Plan. This mission and its key performance measures directly support DOC's Strategic Objective 1.3, Strengthen IP protection. For more information, please visit the **Commerce Performance Data Pro** website.

Economic growth in the United States is driven by the creation of new and better ways of producing goods and services that lead to new and productive investments. American innovators and businesses rely on the legal rights associated with patents to reap the benefits of their innovations. Processing patent applications in a high-quality and timely manner advances economic prosperity by using IP as a tool to create a business environment that cultivates and protects new ideas, technologies, services, and products.

In FY 2021, the USPTO continued to press forward, serve the public, and promote commerce in the United States. The efforts of its employees reassured stakeholders and the public and enabled innovators and inventors to make progress in their work. Like many other government agencies and private businesses, the USPTO adopted an almost fully virtual operating model for FY 2021, with the vast majority of employees and contractors working remotely full-time. Operations under a virtual operating model continued to support the agency's pendency goals.

The USPTO saw a .10% decrease in serialized filings, resulting in a utility, plant, and reissue patent application inventory of 642,781 at the end of FY 2021. The Request for Continued Examination (RCE) inventory decreased to 13,614. The USPTO also remained open for business, albeit virtually, supporting stakeholders and the public more broadly.

OBJECTIVE 1: OPTIMIZE PATENT APPLICATION PENDENCY

In FY 2021, the USPTO continued efforts toward the established pendency goal that 90% of both total performance (i.e., mailed actions) and total (i.e., remaining) inventory be within statutory time frames set by 35 U.S.C. § 154(b)—also referred to as PTA compliance. The statutory time frames are:

- Fourteen months from the filing date of a patent application to the mailing date of a first office action (a statement of the examiner's position and the primary action to establish the issues that exist)
- Four months to respond to an amendment, which includes an RCE
- Four months to act on a decision from the PTAB
- Four months to issue a patent after payment of the issue fee
- Thirty-six months from the filing date of an application to the issue date of a patent

For FY 2021, the USPTO set targets to achieve total PTA statutory compliance for 84% of all mailed actions and 86% of all remaining inventory. The actual total PTA compliance for all mailed actions was 83%, and total PTA compliance for all remaining inventory was 86%. The USPTO continues to align examination capacity with the inventory levels of unexamined patent applications. In addition, efforts toward the long-term PTA compliance goals contribute to the optimization of patent application pendency and the predictability of the patent application process. FY 2021 PTA compliance for each PTA category is represented in Table 9.

TABLE 9: PTA PERFORMANCE DATA

PTA Category	PTA Compliance - Mailed Actions	PTA Compliance - Remaining Inventory
Issue an office action within 14 months after application filing	39%	71%
Respond to an amendment within four months	97%	97%
Respond to an RCE filing within four months	84%	80%
Act on the application within four months after a decision from the PTAB	99%	100%
Patent granted within four months after payment of the issue fee	99%	98%
Issue a patent within 36 months of the filing date	87%	95%
Total PTA Compliance	83%	86%

Note: The Total PTA Compliance for both Mailed Actions and Remaining Inventory results are the weighted average of their PTA categories.

OPTIMIZE PENDENCY AND EXAMINATION TIME FRAMES

The USPTO continued to focus on meeting DOC's Strategic Objective 1.2: Advance Innovation by accelerating and improving the reliability of patent processing. The focus on PTA compliance in FY 2021 improved the predictability of patent application processing for USPTO stakeholders.

ALIGN PRODUCTION CAPACITY WITH INCOMING WORKLOAD

Patents routinely reviews pendency to align production capacity with incoming workload. Every year, analysis is performed to determine the areas of high pendency, and new patent examiner hires are placed in these areas. In FY 2021, Patents implemented a system to support a new application assignment process that further assists in normalizing pendency throughout the examining corps, as discussed in the Refine Production Standards to Achieve Patent Quality Expectations and Goals portion of this report.

Table 10 shows how the USPTO evaluates the efficiency of the patent examination process as measured by the relative cost-effectiveness of the entire process over time or the efficiency with which the organization applies its resources to production. Actual results are based on total patent-related expenses USPTO-wide compared with patent production.

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TABLE 10: TOTAL COST PER PATENT PRODUCTION UNIT

Fiscal Year	Target	Actual
2016	\$4,687	\$4,198
2017	\$4,607	\$4,312
2018	\$4,786	\$4,593
2019	\$5,142	\$4,633
2020	\$5,253	\$5,003
2021	\$5,718	\$5,378
2022	\$5,934*	

^{*} Based on FY 2022 President's Budget

LEVERAGE VALUE OBTAINED FROM INTERNATIONAL WORK PRODUCTS

The USPTO continued to be a global leader in developing worksharing programs that result in efficiencies for patent applicants and examiners. In addition, the USPTO also continued to optimize its Patent Prosecution Highway (PPH) and PCT programs, which have increased efficiencies and decreased costs for applicants filing in multiple offices. Furthermore, the USPTO continued its stewardship of the Global Dossier, which provides a single point of access to related applications filed in multiple patent offices at no cost to users. Also, the USPTO continued to pilot innovative, collaborative search programs to enhance the predictability and reliability of IP rights worldwide. For more information about ongoing efforts to enhance the global patent system's efficiency, please see the Strategic Goal III: Provide Domestic and Global Leadership to Improve IP Policy, Enforcement, and Protection Worldwide portion of this report.

IDENTIFY AND OFFER ADDITIONAL PROSECUTION OPTIONS

The USPTO continued to evaluate programs designed to advance the progress of a patent application and to provide applicant assistance, including the Track One Prioritized Patent Examination Program; Quick Path Information Disclosure Statement; After Final Consideration Pilot 2.0; COVID-19 Prioritized Examination Pilot Program; Patents 4 Patients, also known as the Cancer Immunotherapy Pilot Program; and the PPH.

The Track One Prioritized Patent Examination Program, introduced by the AIA, expedites the examination of patent applications with the goal of providing examination within 12 months of filing. The program continues to be a popular program among applicants. Under the COVID-19 Prioritized Examination Pilot Program, the USPTO also accepts requests for prioritized examination of certain patent applications related to COVID-19 without requiring the payment of certain fees associated with prioritized examination for applicants with small or micro entity status. Another available processing option specifically authorizes the advancement of certain patent applications related to inventions that will materially enhance the quality of the environment or contribute to the development or conservation of energy resources when the additional requirements are met. In support of the administration's climate priority, the USPTO is exploring additional options to help accelerate the review of patent applications that pertain to environmental quality, energy conservation, the development of renewable energy, greenhouse gas emission reduction, or other climate-related topics.

OBJECTIVE 2: ISSUE HIGHLY RELIABLE PATENTS

INCREASE EXAMINERS' ABILITY TO OBTAIN THE BEST PRIOR ART DURING EXAMINATION

A patent examiner's ability to find the best prior art during the patent examination process ensures both quality and timeliness. Prior art refers to the references and documents that may be used to determine the novelty or non-obviousness of claimed subject matter in a patent application. The USPTO continued to improve patent examiners' ability to access prior art through the deployment of advanced technology solutions. These solutions included both the new patent search system described later in the Develop Artificial Intelligence Programs for Patents at the USPTO section and the involvement of experts who were available to help with search strategies based on technology and classification.

In FY 2020, the USPTO launched Patents End-to-End (PE2E) Search—a modern, scalable enterprise search tool—to a subset of patent examiners. In FY 2021, the USPTO began to roll out the tool to the patent examining corps, starting with examiners in two Technology Centers. In early FY 2022, the USPTO will continue to roll out the tool to the rest of the patent examining corps and release a limited, public version of the tool. PE2E Search provides features similar to legacy USPTO patent search tools and allows for additional search functionalities, including access to over 70 million foreign, full-image patent documents from over 60 countries with full machine English translations. The most recent examiner version of PE2E Search also integrates artificial intelligence (AI) capabilities that helps examiners identify relevant documents and suggests additional areas to search.

EXPLORING NEW WAYS TO MEET CUSTOMER NEEDS: SUBJECT MATTER ELIGIBILITY

In December 2020, the USPTO issued a request for information and public input on the Article of Manufacture requirement of 35 U.S.C. § 171, the statutory provision governing subject matter eligibility for design patent protection. The request explained that the USPTO has historically interpreted the Article of Manufacture requirement as requiring applicants to claim their designs as applied to or embodied in an Article of Manufacture. Thus, for example, a design for a computer-generated icon would be eligible if claimed as shown on a computer screen, monitor, or other display panel or otherwise as embodied in an Article of Manufacture. However, some stakeholders have expressed that the USPTO's interpretation of section 171 is preventing them from obtaining protection for certain new and emerging technologies (e.g., projections, holographic imagery, and virtual/augmented reality) that do not require a physical display screen or other tangible article to be viewable and thus are not applied to or embodied in an Article of Manufacture. Accordingly, the USPTO requested public input on whether it should revise its interpretation of the Article of Manufacture requirement to protect digital designs encompassing these new and emerging technologies.

In March 2021, the USPTO received a letter from Senator Thom Tillis and Senator Tom Cotton requesting that the USPTO create a pilot program to change how subject matter eligibility issues under 35 U.S.C. § 101 are evaluated for utility patent applications. Under current principles of compact prosecution, examiners identify all patentability-related deficiencies, such as a lack of novelty or subject matter eligibility, in the first office action, and applicants must then respond to all of the identified deficiencies to continue prosecution. The letter suggested that examination efficiency and patent quality could be improved by delaying the full

examination of subject matter eligibility issues until deficiencies related to the other patentability conditions have been resolved. In response to the letter, the USPTO is developing the Deferred Subject Matter Eligibility Response Pilot program to determine whether this premise is accurate for all (or some) technology areas.

Also in March 2021, the USPTO received a letter from Senator Thom Tillis, Senator Mazie Hirono, Senator Tom Cotton, and Senator Chris Coons requesting that the USPTO publish a request for information on the current state of patent eligibility jurisprudence in the United States, evaluate the responses, and provide a detailed summary of its findings by March 5, 2022. The letter indicated a particular interest in learning how the current jurisprudence on subject matter eligibility issues under 35 U.S.C. § 101 may have adversely impacted investment and innovation in critical technologies like quantum computing, AI, precision medicine, diagnostic methods, and pharmaceutical treatments. Accordingly, the USPTO issued a request for information and public input on this issue, and the agency intends to use the comments received from the public to assist in preparing the study.

IMPROVE CONTENT, DELIVERY, AND TIMELINESS OF TECHNICAL AND LEGAL TRAINING

The USPTO is committed to achieving excellence within the global IP community, which requires knowledgeable and highly skilled professionals. The USPTO continues to provide training to patent examiners, both new and experienced, and external stakeholders because each group is critical to a strong IP ecosystem.

In FY 2021, the USPTO established a new, collaborative patent training process to develop and deliver effective training that is legally compliant, consistent in content, and structured to maximize learning. The Patent Training Council is a coalition of representatives from across the agency who ensure trainings are effective and accurate.

The USPTO provided experienced patent examiners with technical and legal training through its Refresher Training Program and Master Class Program. These courses are designed to maintain or expand patent examiners' knowledge, skills, and abilities related to procedures, legal matters, communication, and automation, each of which is constantly evolving. In addition, refresher training on numerous PCT-related topics was given to support staff involved in PCT operations to ensure all employees had the necessary training.

The USPTO provided training for external stakeholders, including Virtual Instructor Led Training (VILT). This program focuses on recent updates to examination practice and procedure for more experienced practitioners. The courses are derived from the same guidance the USPTO provides its patent examiners. Because these sessions are online, the USPTO has been able to continue offering them even while the agency has been in a maximum telework status due to COVID-19. The USPTO successfully transitioned its Stakeholder Training on Examination Practice and Procedure (STEPP), a program that provides practitioners and independent inventors a better understanding of the patent examiner's role in the examination process, to the virtual environment and began delivering programs in FY 2021. In September 2021, the virtual STEPP program was extended to an international audience, with the USPTO's first international STEPP course being offered to agents and attorneys in Europe.

Engaging with and learning from experts in various industries to stay up to date on the latest developments is also important. The Patent Examiner Technical Training Program (PETTP) provides a forum through which industry and academic experts can provide technical training to patent examiners. These presenters cover technological advances, state-of-the-art and emerging trends, and recent innovations in their respective fields.

For more information on these patent examiner and stakeholder training programs as well as other training programs, please visit The Nature of the Training Provided to USPTO Examiners and Attorneys section later in this report.

USE PATENT QUALITY DATA TO IDENTIFY AREAS FOR IMPROVEMENT

Examining patent applications efficiently and effectively is paramount to the IP ecosystem. The USPTO evaluates patent quality by measuring and assessing its work products. Review quality assurance specialists from the Office of Patent Quality Assurance (OPQA) review a random sample of employee work products for compliance with title 35 of the U.S.C. and the relevant case law at the time of the patentability determination. These reviews are performed using the Master Review Form (MRF), a modular review form designed to capture information about the quality of USPTO work products. The MRF includes over 20 unique sections and over 330 inquiries. Feedback and data obtained from these reviews allow the USPTO to identify quality trends earlier in the examination process and pursue any corrective measures, such as training.

In FY 2021, the OPQA's patent quality metrics were based on the completion of 12,036 reviews. Table 11 shows the results of these reviews for the correctness of office actions during FY 2021.

TABLE 11: PATENT COMPLIANCE INDICATORS

Statute	Goal	Actual
35 U.S.C. § 101 (including utility and eligibility) – Ensures the patent application contains a new and useful invention.	>97%	98.3%
35 U.S.C. \S 102 (prior art compliance) – Ensures the patent application is a novel invention in view of the appropriate prior art.	>95%	95.1%
35 U.S.C. § 103 (prior art compliance) - Ensures the patent application is not an obvious invention in view of the appropriate prior art.	>93%	90.7%
35 U.S.C § 112 (35 U.S.C. § 112(a),(b) including (a)/(b) rejections related to 35 U.S.C. § 112(f))) - Ensures the patent application adequately satisfies multiple invention disclosure requirements.	>93%	92.2%

The OPQA also uses the MRF to capture a patent examiner's use of best practices and to designate certain instances of high-quality examiner work as warranting an accolade. The accolades program effectively provides positive feedback to patent examiners by recognizing specific, praiseworthy work via a letter from the Director of the OPQA. Accolade-worthy work generally goes beyond the basic requirements, as found in the Manual of Patent Examining Procedure (MPEP) and is most often recognized for the use of identified best practices in effective manners, clear writing styles, and excellent customer service. Approximately 15.6% of all patent examiner work reviewed in FY 2021 received an accolade.

The USPTO also captured data on customer perceptions of the quality of work products through semiannual external surveys. In each survey cycle, the external survey was sent to approximately 3,000 randomly selected customers who filed frequently. Data from the survey provides valuable insight into frequently filing customers' opinions of the quality of the agency's services and helps the USPTO identify areas of focus. In addition, the data is used to help validate the findings of the USPTO's internal quality data findings.

The surveys focused on the extent to which the respondents feel that the patent examiners adhere to rules and procedures; the correctness, clarity, and consistency of rejections made; and overall examination quality. The survey showed stakeholder satisfaction with overall examination quality continued to rise, with 19 stakeholders citing quality as Good or Excellent for every stakeholder that reported quality as Poor or Very Poor in the most recent survey. This ratio is the highest recorded level since the survey's inception in 2006. Satisfaction with prior art rejections under 35 U.S.C. §§ 102 and 103 continues to be the most vital driver of overall quality perceptions.

REFINE PRODUCTION STANDARDS TO ACHIEVE PATENT QUALITY EXPECTATIONS AND GOALS

In FY 2021, the USPTO implemented a process that revises the time allotted for examining patent applications, routes applications to patent examiners, and evaluates patent examiner performance via the examiner's performance appraisal plan.

This implementation was possible due to an initial phase that started last fiscal year and offered an increase in the base or minimum time patent examiners are allotted to examine each application. Also, additional time was allotted for applications that contained particular attributes above a specified threshold, including the overall number of claims, the length of the specification, and the number of pages in any filed Information Disclosure Statements. Examination time is also based on an application's classification "picture," which represents the full scope of technology covered in an application and accounts for multidisciplinary inventions.

The new method for allotting examination time is more transparent and flexible; adjustments can be made as the patent examination or prosecution conditions change. This flexibility allows for maintaining the necessary time to ensure stakeholder confidence in the certainty of resultant patent rights and enables optimal pendency, cost, and quality levels.

The new application routing process more effectively matches each application's unique technological profile with the work experience of a patent examiner, thereby enhancing the process of assigning applications to patent examiners with the requisite expertise and experience.

The updated examiner performance appraisal plan establishes a road map for enhanced patent quality by providing patent examiners with a list of exemplary practices in the areas of search, clarity of the written prosecution record, and principles of compact prosecution. For example, the road map emphasizes search by highlighting the importance of searching the inventive concept as disclosed in an application to identify the best prior art in the case at the earliest possible time in prosecution.

Throughout the year, the USPTO remained committed to studying the impacts of the implementation of this new process on patent examiners and internal stakeholders, collecting information and feedback to develop targeted solutions to continue improving the processes by which time is allotted for examining patent applications, routing applications to patent examiners, and evaluating patent examiner performance via the examiner's performance appraisal plan. While continuing to analyze these impacts, the USPTO provided additional examination time to patent examiners to ensure the proper classification of eligible patent applications. This effort is ongoing, and the USPTO expects to have the results around the beginning of FY 2022. For more information on these updates, please visit the **examiner** performance appraisal webpage.

OBJECTIVE 3: FOSTER INNOVATION THROUGH BUSINESS EFFECTIVENESS

ENHANCE PATENT CUSTOMER EXPERIENCE

Patents measured CX across all Patents Contact Centers, and customer satisfaction scores were above industry benchmarks. The knowledge gained from this analysis led to data-driven enhancements for customers. Some of these enhancements will use human-centered design principles and practices in one of the USPTO's two newly formed labs.

The labs apply these principles and practices to solve policy, process, and technology challenges. The first of these is the Patents' Design Lab, which researches topics related to policy and process, identifies possible interventions, pilots the interventions, studies the effectiveness of the interventions, and makes recommendations about them. The second is the Innovation Lab, which prototypes solutions to solve customer and employee needs, tests the solutions' efficacy, and scales the solutions. Future collaborations between these two labs will address people, process, and technology needs.

DEVELOP ARTIFICIAL INTELLIGENCE PROGRAMS FOR PATENTS AT THE USPTO

To incorporate AI into patent examination tools and processes, the USPTO has undertaken a comprehensive development strategy, including extensive market research and rigorous testing of a wide range of proofs of concepts to identify the best solutions. The objective is both to deploy smarter technology and to build a smarter organization by coupling the strengths of examiners with the strengths of AI. This is the beginning of a new trajectory in how technology is leveraged to transform patent operations for the better.

The USPTO is incorporating AI tools into two critical areas of patent examination: search and classification.

Performing a complete prior art search is a critically important component of the patent examination process and the USPTO's mission to issue reliable patent rights. However, the exponential growth of prior art and tremendous pace of technological innovation make discovering the most relevant prior art increasingly difficult. To meet this challenge, the USPTO has developed an AI-based prototype search system that helps to identify relevant documents and provides suggestions for other areas to search. In addition to providing world-class patent AI models, the system is designed to learn from the world's greatest patent searchers—the USPTO examiners. The system is configured to automatically capture feedback data from examiners to yield further enhancements over time. The USPTO has also developed features to help examiners interpret results generated by the AI models to provide transparency into the system.

A beta version of this new AI tool was released to a subset of almost 600 patent examiners across all technology areas for assessment and refinement, and expansions to the entire patent examination corps are planned for FY 2022. The agency has built infrastructure and AI models that support the promotion of the first AI search capability from the prototype stage to a full PE2E Search tool. The first AI search feature is set to be released to the entire patent examination corps in early FY 2022, and further AI capabilities are currently being identified for development and release.

The USPTO has also developed an auto-classification tool that leverages machine learning (ML) to classify patent documents using the Cooperative Patent Classification (CPC) system. The system can suggest CPC symbols, and it includes the ability to identify claimed subject matter for additional refinement of the suggested CPC symbols, similar to the AI search system. The auto-classification system also includes indicators that provide users with insight into the reasoning of the AI by linking suggested CPC symbols to specific portions of the document. Enhanced feedback mechanisms in the system integrate with the USPTO's existing classification processes to support training the Al. Based on an analysis of system performance, the USPTO implemented auto-classification in December 2020 to automatically identify claimed subject matter with CPC for internal operations. As a result, the agency has reduced expenditures on the acquisition of CPC data. Additionally, the USPTO is continuing to develop further capabilities to support a broader range of patent classification requirements at the agency.

These early successes are demonstrating the value of applying AI to improve USPTO operations and to strengthen the IP system. To continue building from these successes, Patents has expanded its investigations to explore potential new opportunities for leveraging AI and emerging technologies beyond the search and classification use cases.

RETAIN AND LEVERAGE NATIONWIDE TALENT

The Patent Training Academy continued to onboard and train new employees in the virtual environment without requiring them to relocate. This increased flexibility allowed the USPTO to expand its nationwide workforce. In FY 2021, the USPTO hired 492 new UPR patent examiners and 46 Design patent examiners. The Patent Training Academy optimized its offerings in the virtual environment, focusing on interactivity and adding a community connectivity component to acclimate the new examiners to the USPTO.

The vast majority of USPTO employees continued to work remotely full-time this fiscal year. Realizing the benefit of its prior experiences during the unprecedented times in the current maximum telework environment, the USPTO expanded and streamlined all of its decades-old telework programs. Please refer to Continue to Strengthen the USPTO Telework Environment under objective 1 of the Mission Support Goal for a full discussion of agency telework programs.

COORDINATE OUTREACH EFFORTS AND EVALUATE THE IMPACT ON THE PATENT ECOSYSTEM

Established by the USPTO, the National Council for Expanding American Innovation (NCEAI)⁷ is responsible for increasing participation in the innovation ecosystem by encouraging, empowering, and supporting all future innovators. In October 2021, Secretary Raimondo announced that she will serve as the new Chair. In her first act as Chair the Secretary renamed the NCEAI the Council for Inclusive Innovation, or Cl². The Cl² is composed of high-level leaders from the federal government, industry, academia, and professional and nonprofit organizations as well as venture capitalists and independent inventors who are committed to increasing opportunities for all Americans to participate in innovation. A top priority of the Cl² is to help build a more diverse and inclusive innovation ecosystem by encouraging participation demographically, geographically, and economically.

The NCEAI (re-branded Cl²) hosted a series of Innovation Chat webinars to further the discussion on how to increase opportunities for all Americans to participate in innovation. Chats have focused on the beneficial effects expanding American innovation would have on inclusivity and innovators' creations. Please follow the Cl² for updates and further information on the national strategy.

In FY 2021, the USPTO consolidated several areas that share a focus on stakeholder education, support, and CX into the Office of Patents Stakeholder Experience (OPSE) to optimize resources and promote education initiatives on and assistance with patent matters to external stakeholders, regardless of skill level. Various Patents customer call centers were unified into OPSE to provide consistency in customer assistance for patent application matters. Patent applicants can take advantage of available assistance with filing and prosecution issues.

The USPTO recognizes that the cost of legal assistance is prohibitive for many applicants, particularly independent inventors and small businesses. The USPTO's Pro Se Assistance Program helps these inventors meet their goal of protecting their valuable IP. The Pro Se Assistance Program helps make the patent system more transparent and reduces obstacles for under-resourced patent applicants through targeted efforts via virtual one-on-one, telephone, or email assistance and virtual education programs. The office operates five days per week (Monday through Friday, 8:30 a.m. to 5 p.m. ET). These services provide a CX designed to promote innovation, stimulate the economy, and provide access inclusively and uniquely.

During FY 2021, the Pro Se Assistance Program received 4,998 phone inquiries, 1,386 email inquiries, and 932 virtual assistance appointments. Patent examiners in the Pro Se Art Unit worked with applicants on thousands of applications to help make the patent system more transparent and understandable. Additionally, the Pro Se Art Unit continued to provide dedicated educational and practical resources to small businesses, independent inventors, and underrepresented inventors. By collaborating proactively with applicants, from filing through final disposition of a patent application (e.g., abandoned, allowed, or on appeal), the USPTO hopes to identify, streamline, and ameliorate procedural obstacles for first-time filers. Over 6,600 pro se applications were assigned to the Pro Se Art Unit as of the end of FY 2021.

The USPTO continued to enhance customer partnerships to provide an informal conduit through which stakeholders can share insights and experiences that improve patent prosecution in specific technology areas. Though these events commonly occur in person on the USPTO campus, the agency held virtual customer partnership events in FY 2021 during the maximum telework period, allowing external stakeholders' invaluable engagement opportunities to continue.

The USPTO hosted Customer Partnership Meetings this year, including meetings that focused on cybersecurity and business methods. The increased interactions between the USPTO and external stakeholders in specific technology areas aim to enhance relationships and improve future prosecutorial issues. For more information, please see the Patents Customer Partnership Meetings website.



OBJECTIVE 4: ENHANCE OPERATIONS OF THE PATENT TRIAL AND APPEAL BOARD

ENHANCE THE CONSISTENCY, TRANSPARENCY, AND CERTAINTY OF PATENT TRIAL AND APPEAL BOARD PROCEEDINGS

During this unprecedented and challenging time, the PTAB continued its mission without interruption and made several improvements to its processes and proceedings to enhance consistency, transparency, and certainty for ex parte appeals and AIA proceedings. The PTAB also continued to implement changes to its practice in response to stakeholder feedback. The changes included:

- Conducting 590 ex parte appeal hearings and 414 AIA trial hearings remotely, either by telephone or video since the pandemic started, and granting public access to 277 proceedings by telephone, which was a service that the Board did not offer to the public before the pandemic
- Conducting 51 ex parte appeal or AIA trial arguments involving practitioners participating in the Legal Experience and Advancement Program (LEAP) and hosting three mock argument training sessions for 120 LEAP practitioners on ex parte appeal and AIA trials, including the provision of personalized feedback for each practitioner from actual judges
- Publishing a request for comments concerning the discretion to institute AIA trials (October 20, 2020) and releasing a summary of the more than 800 comments received in response thereto (January 21, 2021)
- Publishing final rules:
 - 1. Allocating the burden of persuasion on motions to amend in AIA trials (December 21, 2020).
 - 2. Eliminating the presumption at institution favoring the petitioner as to testimonial evidence (December 9, 2020)
- Publishing guidance on:
 - 1. The indefiniteness standard applied in AIA post-grant proceedings (January 6, 2021) and
 - 2. The implementation of a new, interim Director review process under *Arthrex* (June 29, 2021)
- Granting 181 petitions for entry into the fast-track ex parte appeal pilot program within an average of 1.4 days of petition filing and issuing 128 appeal decisions within an average of 2.2 months of petition grant
- Implementing a new pilot program to expedite the review of decisions in ex parte appeals covering inventions related to COVID-19 (April 15, 2021)

In addition, the PTAB managed the impact of the Supreme Court's decision in *United* States v. Arthrex, Inc., by implementing a new, interim Director review process to ensure that APJs function as inferior officers. Under this interim process, the parties to an inter partes review or a post-grant review proceeding may request Director review of a final written decision. Alternatively, the Director may, of their own accord, decide to conduct a review. Within the first two weeks following the Supreme Court's June 21, 2021 decision, the PTAB received two requests for Director review that had been filed in a timely manner.

The PTAB continued to meet all statutory due dates for AIA proceedings (Table 12 and Table 13), while also reducing the average pendency of ex parte appeals from approximately 30 months in 2015 to 12.7 months for appeals decided in the fourth quarter of FY 2021 (Table 14). The PTAB has a long-term pendency goal of 12 months in ex parte appeals in all technology areas, and the Board is on its way to achieving that goal.

ENHANCE PATENT TRIAL AND APPEAL BOARD OPERATIONS TO SUPPORT **BOARD PROCEEDINGS**

The PTAB has made significant progress in IT improvements and upgrades while adopting the agency's agile IT NWOW. The PTAB is converting from the previous, multisystem PTAB End-to-End IT system to a single, integrated IT system: the Patent Trial and Appeal Case Tracking System (P-TACTS). The PTAB made this change to provide internal users with an improved and unified interface for performing case management and decision-making across all of the Board's jurisdictions. When complete, this change will provide external customers with a straightforward user interface for filing petitions and other papers and conducting business with the PTAB. P-TACTS will improve analytics and dashboard capabilities and, importantly, provide PTAB management with a comprehensive and reliable data source for enhanced reporting to internal and external stakeholders. As the PTAB receives internal and external feedback on its IT system, the Board will continue to adjust and evolve based on USPTO and customer needs.



TABLE 12: PTAB TIMELINESS OF DECISION TO INSTITUTE

Fiscal Year	Target	Actual
2015	3.0	2.7
2016	3.0	2.6
2017	3.0	2.5
2018	3.0	2.6
2019	3.0	2.7
2020	3.0	2.6
2021	3.0	2.7
2022	3.0	_

Target met.

TABLE 13: PTAB TIMELINESS OF AIA TRIAL PROCEEDINGS

Fiscal Year	Target	Actual
2015	12.0	11.3
2016	12.0	11.7
2017	12.0	11.7
2018	12.0	11.8
2019	12.0	11.7
2020	12.0	11.7
2021	12.0	11.8
2022	12.0	_

Target met.

TABLE 14: PTAB PENDENCY OF DECIDED APPEALS FROM APPEAL NUMBER ASSIGNMENT DATE (AVERAGE NUMBER OF MONTHS)

Fiscal Year	Target	Actual
2015	-	29.8
2016	26.0	25.5
2017	23.5	17.8
2018	16.9	15.1
2019	16.5	14.8
2020	14.5	13.4
2021	14.2	12.7
2022	14.0	_

Target met.

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Trademarks STRATEGIC GOAL II

WHAT IS A TRADEMARK OR SERVICE MARK?

A trademark or service mark is a word, name, symbol, logo, design, or any combination thereof that distinguishes the goods and services of one seller or provider from those of others and indicates the source of the goods and services. Though not required, federal registration of a mark carries several advantages, including notice to the public of the registrant's claim of ownership of the mark, legal presumption of ownership nationwide, and a presumption of the exclusive right to use the mark on or in connection with the goods and services identified in the registration.

A trademark registered at the USPTO may also be recorded with U.S. Customs and Border Protection (CBP). The CBP can detain and seize imported goods that violate a registered trademark owner's IP rights in the United States. More detailed information is available on the <u>Trademark Basics Boot Camp website</u>.

TRADEMARKS ORGANIZATION

The primary function of the Trademarks organization is to register marks that meet the requirements of the Trademark Act of 1946 as amended. Marks may take many forms: trademarks, service marks, certification marks (a type of trademark that is used to show consumers that particular goods and/or services or their providers have met certain standards), collective marks, and collective membership marks (a mark adopted by a "collective"—i.e., an association, union, cooperative, fraternal organization, or other group). A collective membership mark may be a letter or letters, a word or words, a single design, a name or nickname, or another matter that identifies the collective group. Though certification marks may be used by anyone who complies with the standards defined by the owner of the particular certification mark, collective trademarks may be used only by particular members of the organization (the collective) that owns them.

A Trademark Register provides notice to the public of the trademark rights claimed in pending applications and existing registrations. To carry out this essential function, Trademarks engages in two core practices: examining applications for trademark registration and processing filings to maintain registrations.

STRATEGIC GOAL II:

OPTIMIZE TRADEMARK OUALITY AND TIMELINESS

OBJECTIVE 1: OPTIMIZE TRADEMARK APPLICATION PENDENCY

Trademark operations are aligned with the USPTO's strategic goal of optimizing trademark quality and timeliness. The agency implements U.S. trademark laws and regulations for the mutual benefit of consumers and businesses in accordance with the USPTO's 2018-2022 Strategic Plan.

As part of these processes, examining attorneys make determinations as to registrability under the provisions of the Trademark Act. This includes searching electronic databases for pending or registered marks that are confusingly similar to the mark in a subject application, examining applications for compliance with statutory and procedural requirements, communicating findings to applicants, reviewing applicants' responses to the findings, approving applications to be published for opposition, and examining statements of use in applications filed under the intent-to-use provisions of section 1(b) of the Trademark Act. Trademarks also reviews lawful maintenance documents and renewals of trademark registrations for potential approval and participates in policy development for examination, international trademark office cooperation, and trademark-focused educational and stakeholder outreach.

The USPTO weighs these collective responsibilities and develops pendency goals accordingly to meet the expectations of its global stakeholders through an optimal combination of pendency, examination efficiency, and agency resources. The agency balances examination capacity in handling both incoming trademark application filings and the subsequent disposition of initially examined applications by using production incentives, overtime, career development details, additional staffing, and technological systems. Hiring additional staff has traditionally been effective; however, the unprecedented increase in application filings in FY 2021 that began in the final months of FY 2020 has required a shift in strategy to include additional resources as inventories grow and pendencies are impacted.

The USPTO received a historic 943,928 trademark application classes in FY 2021, eclipsing last year's record total of 738,112 by 27.9%. Chinese and U.S. filers represented the leading drivers of that growth, accounting for about 61.5% and 31.1% of the increase respectively. The rest of the world is collectively responsible for the remaining 7.4%. Year-to-date growth of application classes in FY 2021 ranged between 71.3% and 27.5% each month. There is no one reason for this sustained growth. It is likely, however, that the following factors played a significant role: the growth of online sales during the pandemic, government stimuli and subsidies, anticipation of the USPTO's fee increase on January 2, 2021, and a robust level of entrepreneurialism. Regardless of the cause, the impact on Trademarks operations has been significant.

The surge in trademark filings has resulted in substantial increases in the USPTO's trademark application pendency and other processing times in the cycle. First action pendency was 6.3 months in FY 2021, exceeding the optimum target range of 2.5-4.5 months. Prior to FY 2021, first actions on newly filed applications were routinely issued in less than 3.5 months annually, dating back to 2007. First action pendency measures the time between when the USPTO first receives a trademark application and when it is first pulled by an examining attorney for examination. Despite the agency's success in prior years, the rising inventory of applications due to the record amount of filings has pushed first action pendency beyond the target range for the first time in nearly 15 years.

For final disposal, which measures from the date of filing to the date that the application was either registered or abandoned, the USPTO averaged 11.2 months. Despite the adverse impact on first action pendency, Trademarks successfully achieved the 12-month final disposal target, further extending its broad success of sustained optimal trademark pendency (see Tables 15 and 16). The achievement of optimal pendencies is a critical indicator for stakeholders because these milestones often impact business decisions. Taking aggressive steps to address the surge in a manner that seeks to return to optimal time frames has been and remains a core priority.

The USPTO met the increases in application filings with a multifaceted strategy composed of:

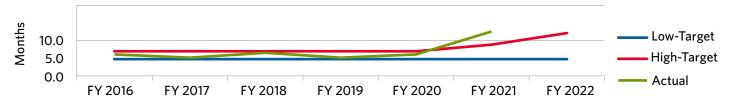
- Reorganizing workloads among professional staff
- Expanding the output of the examining corps by hiring additional examining attorneys and increasing overtime
- Identifying and implementing options for streamlining work processes, including exploring the use of robotic process automation tools
- Launching a pilot program to add bandwidth with specialized contractors

FY 2021 was an extraordinary year for the USPTO, with trademark application filings surging well beyond what could have been imagined in the middle of an economic shutdown. At the same time, Trademark's examination capacity was significantly strained due to the pandemic. These conditions resulted in first action pendency levels not seen in nearly two decades. An operational assessment conducted after the close out of the fiscal year concluded that the performance of trademark examining attorneys and support staff was remarkable as compared to previous years, and that the pendency goal would have been met but for this abnormal congruence of extraordinary filings and the pandemic. The inventory of unexamined applications has more than doubled since last year as the economic recovery continues, so pendency will further increase before returning to normal pre-pandemic levels. The USPTO has staked a recovery path for FY 2022 and beyond that includes a new flexible capacity model, enhanced examination efficiencies that leverage artificial intelligence and robotic process automation, and an initiative to streamline and reengineer key operational processes. As part of our recovery strategy, the USPTO is also reviewing and reassessing ways to better define, evaluate and measure performance.

TABLE 15: TRADEMARK AVERAGE FIRST ACTION PENDENCY (MONTHS)

Fiscal Year	Target	Actual
2016	2.5 to 3.5	3.1
2017	2.5 to 3.5	2.7
2018	2.5 to 3.5	3.4
2019	2.5 to 3.5	2.6
2020	2.5 to 3.5	3.0
2021	2.5 to 4.5	6.3
2022	2.5 to 6.0	

Target not met.

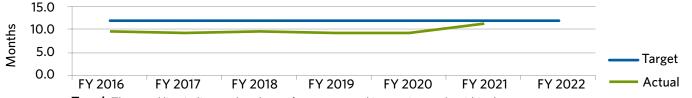


Trend: The trend line indicates that the performance is not meeting goals within the expected target range of 2.5 to 4.5 months. Additional discussion for this measure can be found on page 82.

TABLE 16: TRADEMARK AVERAGE TOTAL PENDENCY (MONTHS)

Fiscal Year	Target	Actual
2016	12.0	9.8
2017	12.0	9.5
2018	12.0	9.6
2019	12.0	9.3
2020	12.0	9.5
2021	12.0	11.2
2022	12.0	

Target met.



Trend: The trend line indicates that the performance trend is meeting goals within the target range. Additional discussion for this measure can be found on page 82.

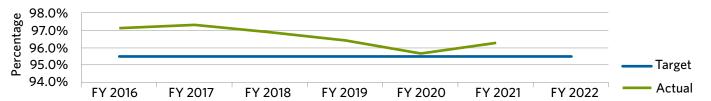
OBJECTIVE 2: ISSUE HIGH-QUALITY TRADEMARKS

Trademark examination quality is predicated on first and final office actions meeting certain legal and procedural standards. Quality reviews are completed on first office actions and on the examining attorney's final action approval or denial of the registration of a given mark (see Tables 17 and 18). The first action compliance rate is the total number of first actions without any substantive decision-making errors made, substantive decision-making errors missed, or substandard refusals under section 2 of the Trademark Act divided by the total number of first actions reviewed. The final compliance rate is the total number of cases without any substantive decision-making errors divided by the total number of reviewed final actions and cases approved for publication. First and final action compliance rates were 96.3% and 98.7%, respectively, for FY 2021.

TABLE 17: TRADEMARK FIRST ACTION COMPLIANCE RATE

Fiscal Year	Target	Actual
2016	95.5%	97.1%
2017	95.5%	97.3%
2018	95.5%	96.9%
2019	95.5%	96.4%
2020	95.5%	95.7%
2021	95.5%	96.3%
2022	95.5%	

Target met.

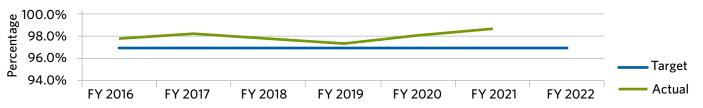


Trend: The trend line indicates that the performance is exceeding standards within the target. This measure is the percentage of applications reviewed meeting the criteria for decision-making for the first office action under the Trademark Act. Additional discussion for this measure can be found on page 83.

TABLE 18: TRADEMARK FINAL ACTION COMPLIANCE RATE

Fiscal Year	Target	Actual
2016	97.0%	97.8%
2017	97.0%	98.3%
2018	97.0%	97.9%
2019	97.0%	97.4%
2020	97.0%	98.1%
2021	97.0%	98.7%
2022	97.0%	

Target met.



Trend: The trend line indicates that the performance is exceeding standards within the target. This measure is the percentage of applications reviewed meeting the criteria for decision-making for registration based on the examiner's approval or denial of the application including first office actions under the Trademark Act. Additional discussion for this measure can be found on page 83.

Quality measurement considers the application's adherence to registrability standards and the comprehensive excellence of the office action itself, including research, writing, legal decision-making, and evidence. Trademarks routinely achieves its quality targets and has been able to sustain this high level of performance by standardizing training and feedback; promoting electronic filing and processing (which helps avoid manual data entry errors); increasing the use of online tools and enhanced processes; and adopting more rigorous, customercentric measures.

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Trademarks met all three quality targets in FY 2021, validating the effectiveness of the organization's specialized training, online tools, and enhanced communication. This achievement is remarkable in light of the volume of the applications examined by the trademark attorneys and their need to work while handling the pressures caused by the pandemic.

Trademarks' most comprehensive quality measure, exceptional office actions, exceeded the annual target of 50% by achieving 54.1% in FY 2021. Table 19 illustrates the USPTO's exceptional office action rates, which reflect its commitment to ongoing excellence in searching, developing supporting evidence, writing office actions, and communicating decisions. This success rate further demonstrates the USPTO's holistic approach to quality. It is calculated by the total number of cases in which there are no decision-making errors, the search is sufficient, and the writing and evidence for every issue raised are rated as "excellent" divided by the total number of first actions reviewed. The goal for exceptional office actions is reviewed annually and is periodically adjusted to reflect application volume, changes in the law, the effect of hiring additional examining attorneys, and the implementation of new procedures and processes. Despite the challenges faced in FY 2021, the USPTO has demonstrated a sustained commitment to trademark quality by achieving this particularly rigorous target again.

The value of the USPTO's multifaceted training program for its trademark examining attorneys and support staff was demonstrated again this year in Trademarks' ability to process applications in the wake of significantly increased workloads. New examining attorneys are trained in the classroom first and then work with a mentor for an extended period. In light of events this year, new examining attorneys were trained primarily virtually. Experienced examining attorneys are provided with continuing training and resources to support their performance. This training includes in-house legal training from the USPTO's OTQRT and sessions on ongoing trademark case law updates and examination guidelines provided by the Legal Policy Office. The USPTO provides continuing legal education by outside lawyers and stakeholders on relevant industry topics and offers continued training on best practices for using IT when conducting research and best procedures for minimizing errors.

The USPTO continues to engage stakeholders in verifying trademark quality findings, offering industry-specific training provided by user groups, and working with industry experts on updating identifications of goods and services. The USPTO hosts regular meetings and roundtables with outside constituent groups and provides a customer call center and an email address for direct communication with customers who provide valuable feedback on examination quality.

Table 20 shows how the USPTO evaluates the efficiency of the trademark examination process as measured by the average cost of trademark disposal compared with the direct and indirect costs associated with trademarks. This efficiency measure is calculated by dividing total expenses associated with the examination and processing of trademarks (including multiyear IT investments, overhead costs, and allocated expenses) by outputs or office disposals. Actual results are based on total trademark-related expenses office-wide compared with office disposals (e.g., abandoned and registered applications, etc.).

TABLE 19: EXCEPTIONAL OFFICE ACTION RATE

Fiscal Year	Target	Actual
2016	40.0%	45.4%
2017	40.0%	45.0%
2018	45.0%	48.0%
2019	46.0%	54.5%
2020	50.0%	51.0%
2021	50.0%	54.1%
2022	50.0%	

Target met.

90 65.0%
55.0%
45.0%
35.0%
FY 2016 FY 2017 FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 Actual

Trend: The trend line indicates positive performance. Additional discussion for this measure can be found on page 85.

TABLE 20: TOTAL COST PER TRADEMARK OFFICE DISPOSAL

Fiscal Year	Target	Actual
2016	\$590	\$600
2017	\$561	\$586
2018	\$540	\$576
2019	\$539	\$600
2020	\$691	\$586
2021	\$620	\$583
2022	\$640*	

^{*} Based on FY 2022 President's Budget

OBJECTIVE 3: FOSTER BUSINESS EFFECTIVENESS

RENEWED FOCUS ON IT MODERNIZATION TO ENHANCE OPERATIONS

The persistent surge of trademark applications further illuminated an imperative to modernize Trademarks' IT and production systems. As reported last year, the USPTO experienced uncertain revenues resulting from the pandemic-related economic downturn. To mitigate the impact of this downturn and ensure the agency had sufficient funding to sustain core mission operations, the USPTO strategically deferred planned investment in IT modernization that would have delivered a new suite of modern trademarks IT solutions. However, the USPTO did fund maintenance of the legacy Trademarks IT systems to sustain business operations.

The Trademarks legacy systems continue to be effective, but they limit Trademarks' ability to optimize current operations and expand the capacity needed to accommodate greater workloads precipitated by the large influx of trademark applications. The long-term outlook for the legacy infrastructure is not viable because repairing or adequately upgrading the infrastructure is challenging and yields steadily diminishing returns. In FY 2021, the Trademarks IT delivery infrastructure was modernized to improve the delivery of software into production. Specific examples of these improvements include establishing development, security, and operations (DevSecOps) pipelines and parallel "blue/green" environments for over 90% of the Trademarks Product Line.

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The DevSecOps pipelines allow for faster delivery of software into production measured in minutes instead of hours or days. In addition, the blue/green environments greatly increase system availability by allowing new software to be deployed into one production environment without having to bring down the entire production environment. For clarification, blue/green environments are essentially two identical production environments running in parallel. A blue/green deployment is an application release strategy for safely updating applications in production with no downtime. This arrangement allows the USPTO to deploy new code into one environment while allowing the second production environment to keep running. This means users can continue to do their work as any patches and new enhancements are deployed, greatly increasing the availability of the system.

Other noteworthy achievements include the completion of initial usability testing for a new log-in identity verification and attorney sponsorship tool for Trademark Electronic Application System (TEAS) filers. Feedback from participants was collected to inform and finalize the requirements for these new features to help ensure a positive CX for all users in future releases.

The Trademarks IT budget maintained its reduced funding levels at the start of FY 2021. However, the stronger financial position allowed the USPTO to allocate additional IT funding to support emerging requirements, such as implementing the newly enacted TMA and continuing to add capacity to address the unprecedented trademark filing surge and resulting inventory backlog. Additional IT development teams were added to the Trademarks Product Line to implement necessary IT system changes to support TMA requirements and develop solutions based on AI and robotic process automation (RPA). Supporting these requirements and developing these solutions will streamline business processes within the pre-exam unit to help tackle the growing filing backlog. The USPTO expects to further increase its investment in Trademarks IT modernization in FY 2022.

To provide additional tools to support the Trademarks Special Task Force for Improper Activities, the OCIO worked to acquire investigative case management software to assist trademark attorneys with tracking patterns of trademark fraud; collecting evidence; and deciding on further actions, including involving law enforcement agencies to pursue criminal action.

USE BUSINESS INTELLIGENCE AND DATA ANALYTICS TO GUIDE DECISIONS

Trademarks' strategic investments in business intelligence and data analytics continued in FY 2021 as the USPTO expanded the use of objective data and information to drive decision-making. The USPTO expanded its staff of Trademarks business intelligence analysts, including staff with expertise in AI and ML, to help address the growing challenges of the volume of applications received, suspicious and fraudulent applications, maintenance of the overall integrity of the register, and efforts to anticipate the needs of applicants and registrants more effectively.

The USPTO released two trademark dashboard products in January 2021. These products provide management unique, granular insights into the types of goods, services, and classes that fuel the growth of new application filings and contribute to suspicious or fraudulent filings as well as increase the effectiveness of the identification of trademark applicants' profiles. Data-driven analytics and AI are integral components of the USPTO's Strategic Plan, so Trademarks will continue to make investments in this part of the business for the benefit of applicants, the

public, and the agency's global partners. During FY 2021, the USPTO continued to expand its trademark-focused analytics, including:

- Proof-of-use reporting automation
- Identification and automation of goods and services misclassification
- Applicant profile analysis
- Growth analysis (countries, goods and services, entities, pro se vs. non-pro se, etc.)
- Digitally altered specimen analysis

These FY 2021 accomplishments build on a broader portfolio of products, data, and information that improves operations for the trademark community. In FY 2022, Trademarks expects to expand its analytic capabilities, including additional investments to support the integration of AI to enhance predictive capabilities in the near term to more proactively meet the growing need for reliable, actionable data and information.

PROTECTING THE INTEGRITY OF THE REGISTER

As filings have increased, so have suspicious trademark application and registration maintenance filings. The USPTO made considerable strides in protecting the integrity of the Trademark Register in FY 2021 through statutory, technological, and operational adjustments.

Most trademark filings are legitimate, but some are submitted with fake or digitally altered or created specimens of use or false information designed to circumvent U.S. Rules of Practice or USPTO website terms of use. Collectively, these filings pose a financial and reputational risk to the USPTO and a risk to the integrity of the register. In response, the USPTO continued to launch new or improve existing initiatives in FY 2021 aimed at protecting the integrity of the Trademark Register, including:

- Administrative sanctions: The Commissioner for Trademarks established an administrative process to investigate improper submissions filed with the USPTO in trademark matters. The Commissioner has the authority to investigate submissions that appear to violate the Trademark Rules of Practice, including the rules concerning signatures, certificates and representation of others in trademark matters before the USPTO (USPTO rules), or USPTO website terms of use, and following notice and a reasonable opportunity to respond, impose sanctions as deemed appropriate. Sanctions may include terminating proceedings. The results of the investigation are also referred to the USPTO's Office of Enrollment and Discipline when there is evidence of attorney misconduct, or to law enforcement agencies when there is evidence of criminal conduct.
- **Deletion fee:** To preserve a trademark registration, between years five and six after the date of registration and every 10 years after the date of registration, a registrant must file a maintenance document certifying that the mark is currently being used on all goods and services listed in the registration or delete goods and services that are currently not in use at the time of filing. In January 2021, the USPTO implemented a deletion fee that is required to be paid each time a registrant deletes goods or services from the registration in the context of examination of the maintenance declaration. The fee is designed to disincentivize inaccurate claims of use in maintenance submissions.

- **Letter of protest:** The USPTO expanded the letter of protest procedure to allow third parties to submit relevant evidence in a pending application showing that the mark is not in actual use in commerce. If the evidence is relevant, it will be sent to the examining attorney for consideration of a possible refusal.
- **Address verification:** The U.S. counsel rule requires every foreign domiciliary to be represented before the USPTO by a U.S. licensed attorney. To evaluate whether the rule is invoked, each applicant or registrant must provide a domicile address. The USPTO has received applications with unacceptable domicile addresses that appear to be designed to circumvent the U.S. counsel rule. The USPTO is working to automate address verification to improve examination efficiency and enforce compliance with U.S. rules.

IMPLEMENTING THE TMA

The TMA was enacted on December 27, 2020. It amends the Trademark Act of 1946 to establish nonuse proceedings before the Director as well as a new ground for cancellation at the TTAB for a mark that has never been used. These nonuse proceedings before the Director will allow third parties to challenge registrations that have never been used in commerce or that were not in use when required by the Trademark Act without having to file a petition to cancel at the TTAB. The TMA also authorizes the Director to shorten the response periods to office actions in order to move applications, particularly suspicious ones, more quickly through the system.

The USPTO undertook public comment rulemaking and held three roundtables to solicit stakeholder feedback on proposals for implementing the TMA provisions related to the USPTO. The nonuse proceedings are required to be implemented by December 27, 2021. The remaining provisions' dates of implementation are outlined in the final rule.

The TMA provides the trademark community with new tools for removing unused registered trademarks from the federal Trademark Register, and gives the USPTO the ability to move applications through the system more efficiently.

IMPROVE THE CUSTOMER EXPERIENCE

Trademarks continued to execute a trademark customer experience (CX) program to provide consistent, clear, and intuitive services to trademark customers in FY 2021.

Better Website Experience for Small Businesses, Entrepreneurs, and Newcomers to Trademarks: To help build a strong foundation for novice customers, Trademarks redesigned the Trademark basics section of www.uspto.gov based on customer survey research, collaboration among staff with various areas of subject matter expertise, and usability testing with customers and staff who provide customer support. This redesign improved accessibility and ease of use for customers new to trademarks and without legal expertise, such as entrepreneurs and small business owners. Among first-time website visitors, customer satisfaction scores increased from 69 to 71 on a 100-point scale in a three-month, pre- and post-redesign analysis. Customer scores also increased in the areas of information browsing and clarity. For all 21 new or redesigned Trademark basics webpages, 92.2% of customers indicated the pages were helpful (as opposed to not helpful).

To further increase the accessibility of resources for small businesses, Trademarks used the insights from CX research (e.g., the target audience expects a linear order of landing page headings) to improve the Inventor and entrepreneur resources landing page. This added to Trademarks' return on investment from the usability testing, survey collection and analysis, and staff time and effort.

New CX Research to Inform Decision-Making: To gain greater insight into customer needs, Trademarks launched new surveys on its outreach and educational events as well as on TEAS. This allowed Trademarks to understand the CX better and to evaluate the quality of Trademarks services throughout more of the customer journey.

Trademarks also developed an identity verification prototype this year as part of its strategic efforts to fight trademark fraud and improve database security. To ensure a quality experience once launched, Trademarks conducted usability testing to bring the voice of its customers into the decision-making process. These CX research findings led to improvements to the user interface and communications—improvements that are still underway.

Transparency and Accountability for CX: Additionally, Trademarks has been designated as a High-Impact Service Provider under OMB Circular A-11, section 280, and Trademarks has fulfilled all of the guidance's requirements, including conducting a CX maturity self-assessment and developing a trademark CX action plan. Trademarks CX data and action plans are available on the DOC page of Performance.gov.

TRADEMARKS BASICS BOOT CAMP LAUNCH

Throughout FY 2021, Trademarks refocused its outreach efforts by building a more structured program with strong branding and marketing efforts. The office outlined a brand-oriented strategy for taking a more proactive approach to developing training and education programs for trademark practitioners and pro se applicants and for implementing more robust, direct contact with customers and stakeholders, all during the pandemic.

The first installment of new programming kicked off on February 2, 2021, with Trademark Basics Boot Camp. This virtual eight-module series is designed for aspiring trademark applicants, from small business owners and startups to entrepreneurs and craftspeople. Starting with the basic definitions and benefits of trademarks, successive modules cover the fundamentals of preparing, filing, and prosecuting an application and end with the requirements for keeping a registration alive.

Outreach programming like the Trademark Basics Boot Camp helps educate USPTO customers before they log into TEAS. This should help reduce filing errors and the submission of unregistrable marks. The USPTO's long-term goal for such programming is to help build a new generation of more savvy, knowledgeable trademark owners, which is good for the U.S. economy and, in turn, will help decrease Trademarks' operational burdens and increase examination efficiency.

EXPANSION OF TRADEMARK PRO BONO LEGAL SERVICES THROUGH LAW SCHOOL CLINICS

The Law School Clinic Certification Program continued to make a positive impact on the IP community in FY 2021. The program, which benefits law school participants and business owners alike, supports patent and trademark applicants by providing pro bono services, including the filing of applications and the obtaining of trademark protection.

This year, as part of an overall effort to provide economic relief to those impacted by COVID-19 and those in underrepresented groups and communities in particular, an important initiative was established to encourage law schools to expand their practice before the TTAB. The Board provided guidance and offered best practices to the participating law schools on how to handle matters on appeal and oppositions and in inter partes proceedings. Participating law schools are now better equipped to help eligible trademark owners on a pro bono basis beyond the initial prosecution phase. Fifty-three schools actively participate in the program, and, this year, they prosecuted over 653 applications.

The USPTO's selection committee chooses schools based on their solid IP curricula, pro bono services to the public, and community networking and outreach. The program enables law students enrolled in participating schools to process patent and trademark applications before the USPTO under the close guidance of an approved faculty supervisor. The number of participating schools increased as the enrollment period was reopened last year on a rolling basis through December 21, 2022.

For a more in-depth discussion of pro bono services and the Law School Clinic Certification Program, see Mission Support Goal, Objective 4, Enhance the USPTO's Interactions with Internal and External Stakeholders and the Public at Large, on page 132.

PARTNER WITH GLOBAL PEERS AND STAKEHOLDERS

With OPIA, Trademarks works in close cooperation with the USPTO's international partners to exchange ideas about meeting the challenges and capitalizing on opportunities that affect the global trademark community. The Trademark 5 (TM5) comprises the world's five largest trademark offices: the China National Intellectual Property Administration (CNIPA), the European Union Intellectual Property Office (EUIPO), the Japan Patent Office, the Korean Intellectual Property Office, and the USPTO.

The TM5 creates a unique opportunity for the five largest trademark offices to work together to harmonize processes, discuss challenges, and exchange information throughout the year, especially through cooperative projects aimed at improving and better aligning trademark processes.

Due to COVID-19 protocols, the TM5 Midterm Meeting was held virtually on May 25-26, 2021. The meeting was organized by CNIPA, which will also host the annual meeting later this year. Highlights include a new CNIPA and EUIPO joint proposal to review procedures and opposition and a CNIPA proposal on archive management practices. The five offices discussed a range of ongoing projects as well, including fraudulent solicitations, bad faith, nontraditional marks, trademark infringement, and shared experiences and lessons learned regarding recent filing trends. Collaboration on these timely issues is scheduled to continue at the TM5 working-level and annual meetings through the remainder of the calendar year.

For further information on international cooperation, see Strategic Goal III, Objective 2, Provide Leadership and Education on International Intellectual Property Policy and Awareness on page 102.

OBJECTIVE 4: ENHANCE OPERATIONS OF THE TRADEMARK TRIAL AND APPEAL BOARD

In FY 2021, as the global pandemic continued, the TTAB worked without interruption to enhance its operations. The TTAB expanded its COVID-19 relief efforts for stakeholders, reduced average pendency numbers for the disposition of contested trial case motions and the issuance of final decisions on the merits in both appeals and trials, planned for changes necessitated by the TMA, worked to further streamline processes through the stabilization and enhancement of IT systems, prepared for the next generation of IT systems, and continued to improve and enhance the overall customer experience.

In response to the Coronavirus Aid, Relief, and Economic Security Act of 2020, the TTAB provided relief for customers impacted by the COVID-19 pandemic while processing extensions of time, notices of opposition, and ex parte appeals throughout the year. In support of the agency's COVID-19 Prioritized Trademark Examination Program, initiated in June 2020, the TTAB began expediting the review and issuance of ex parte appeal decisions for applications examined under the program in FY 2021. In further support of these relief efforts, the USPTO initiated a Conference Pilot Program for oppositions against applications examined under the COVID-19 Prioritized Trademark Examination Program. Under the Conference Pilot Program, a TTAB attorney or judge participates in the parties' mandatory settlement and discovery planning conferences and is available upon a party's request. Such conferences were useful to the parties, providing clarity and procedural information to facilitate efficient case litigation and potential settlement.

The Board continues its commitment to the transparent reporting of data and performance measures, and it continues to report statistics and trends quarterly on its webpage and through regularly scheduled TPAC meetings and other stakeholder events. From FY 2017 through FY 2019, the TTAB experienced increases in filings across the four main types of incoming filings (appeals, extensions to oppose, oppositions, and petitions to cancel) and filings moderated in FY 2020. In FY 2021, the TTAB saw declines in its three types of filings for trial proceedings—less than 1% in oppositions, 4% in petitions to cancel, 9% in extensions of time to oppose—but experienced an increase of 1.3% in new appeals being commenced. Though the TTAB saw declines in its overall new filings in FY 2020 due to prior, three-year increases in cases commenced, the TTAB had to work through a significant inventory of contested motions in trial cases and a significant inventory of trial and appeal cases that had matured to ready for decision (RFD) on the merits. The Board diligently worked through these matters in FY 2020, bringing down pendency times throughout the year. Thus, in FY 2021, the TTAB met its pendency goals in all categories, during each quarter, and cumulatively for the full year. The TTAB aims to issue decisions on trial cases in 15 weeks or less, in 12 weeks or less for ex parte appeals, and in 12 weeks or less for contested trial case motions. In FY 2021, final decisions on the merits of trial cases issued on average within 9.8 weeks of when such cases became RFD, decisions in appeals issued on average within 7.7 weeks of being RFD, and decisions on motions issued on average within 9.9 weeks of being RFD. The TTAB continues to monitor the surge in new trademark application filings that occurred in FY 2021, and the Board is planning for the impact of these applications eventually resulting in increased appeals and trial case filings, such as oppositions. In FY 2021, the TTAB hired one new ATJ and two interlocutory attorneys to keep pace with current inventories and in anticipation of potential future increases.

Also in FY 2021, the TTAB continued to work toward ensuring the accuracy and integrity of the Trademark Register. The TTAB evaluated the results of its Expedited Cancellation Pilot Program, including the comments of those with whom the Board conferenced in regard to pilot cases. The pilot's objective was to explore the utility of various means for expediting cancellation proceedings challenging the registration of marks asserted to have been abandoned or not used when necessary to support registration. An analysis of the pilot program revealed the following:

- Included in 34% of cancellation proceedings, abandonment was the most common claim in the proceedings.
- Included in 27% of the proceedings, likelihood of confusion was the second most common claim.
- The default judgment rate for all cancellation proceedings was 44%.
- The default judgment rate for cancellation proceedings that included a nonuse or abandonment claim was 49%.
- The default judgment rate for proceedings in which abandonment was the **only** claim was 60%.

The Expedited Cancellation Pilot Program confirmed that TTAB cancellation proceedings in general provide an effective means for challenging registered marks that are not in use and that may prevent others from registering their marks. Cancellation proceedings play an important part in ensuring the accuracy and integrity of the Trademark Register. With a high default judgment rate overall and a much higher default judgment rate where the only claim is abandonment, cancellation proceedings are efficient tools for removing registrations for marks that are not in use and have been abandoned.

Going forward, the Board will continue to recommend that parties prepare for and conduct their discovery conferences in a constructive way, including giving more meaningful consideration to early exchanges of information or documents and to accelerated case resolution (ACR) options during the required discussion of ACR in the discovery conference. Though many parties are not ready to agree to use ACR during the discovery conference, continued discussion of possible settlement often occurs, and therefore after an exchange of discovery and information, the Board will recommend that parties reconsider ACR. Once the parties indicate they are going forward with the cancellation, they are invited to contact the assigned interlocutory attorney to arrange a conference to discuss stipulations and ACR options that may make the proceeding more efficient.

The information gained from the Expedited Cancellation Pilot Program is helping the TTAB prepare for the implementation of the TMA. The TMA provides for a new ex parte cancellation expungement proceeding, which allows third parties to request cancellation of some or all of the goods or services in a registration for which a mark was never used or was abandoned. The TMA also provides for new ex parte reexamination proceedings in which third parties can seek to cancel registered trademarks that were not used at the relevant time according to the basis of the application and date of filing of an allegation of use. These new proceedings may provide faster, more efficient, and less expensive alternatives to a contested inter partes cancellation proceeding, although default judgments in cancellation trial cases remain among the most expeditious options for clearing a mark off the register. During FY 2021, the TTAB reviewed the impacts of the new TMA legislation and planned for the updates necessitated by the act. In particular, the Board is planning for the eventual receipt of appeals from decisions issued in Trademarks that registrations involved in ex parte expungement or ex parte reexamination proceedings should be canceled in whole or in pertinent part.

In FY 2021, the TTAB continued to fulfill its commitment to developing the law by issuing precedential opinions and orders. The TTAB met its goal for the year by issuing 39 precedential decisions on various substantive and procedural matters. The TTAB introduced a program that allows stakeholders to nominate a decision issued by the Board to be designated as precedential. In addition, the TTAB maintained its commitment to timely and regular updates to the Trademark Trial and Appeal Board Manual of Procedure and released the latest version in e-version and PDF formats in June 2021.

The TTAB continues to prepare for the next generation of IT and cloud-based systems. In August 2020, the TTAB released its new TTAB Reading Room, which replaced its Electronic Freedom of Information Act website. The Reading Room provides better search capabilities for TTAB final decisions and precedential orders. The Reading Room will also integrate the TTAB with Trademarks' next-generation systems more effectively. The Reading Room has been received positively.

In FY 2021, the TTAB began work to build its new TTAB Center, which will ultimately replace its web-based electronic filing and docketing systems (the Electronic System for Trademark Trial and Appeals (ESTTA), the Trademark Trial and Appeal Board Inquiry System (TTABVUE), and the Trademark Trial and Appeal Board Information System (TTABIS)) with a cloud-based solution. In April 2021, in support of the TTAB's initiative to enhance its legacy IT systems and to prepare for the next generation of systems, the TTAB completed stabilization efforts for ESTTA, TTABVUE, and TTABIS. The stabilization of these systems provides the foundation needed for the TTAB to continue its current development efforts to build the new TTAB Center and replace the legacy systems. The center will modernize forms, improve the overall CX, and modernize critical business infrastructure. The first phase, which is scheduled for release in FY 2022, will focus on replacing the current ESTTA notice of opposition filing system and automated workflow.

For the first time in nearly three years, the USPTO adjusted TTAB fees through the USPTO's Final Rule addressing a wide variety of Trademark and TTAB fees, effective January 2, 2021. The fee changes allowed the USPTO to continue to recover aggregate costs, better align individual fee amounts with the costs of the service, and protect the integrity of the Trademark Register. For TTAB, the Final Rule increased certain fees for filing notices of opposition, petitions to cancel, extensions of time to oppose, and appeals. New fees were added for filing an appeal brief, requesting extensions of time to file an appeal brief in ex parte cases, and requesting an oral hearing. In connection with the fee increases, the USPTO implemented partial refunds for petitions to cancel in cases that result in entry of default judgments if the cancellation case involved only a nonuse or abandonment claim, the defendant did not appear, and there were no filings other than the petition to cancel, thus providing incentives for filers of cancellation petitions and helping to protect the integrity of the Trademark Register.

The TTAB maintained its commitment to engagement with its stakeholders and customers, despite many outreach events being virtual, by participating in multiple events throughout the year. The Chief and Deputy Chief and multiple ATJs participated in the Lanham Act 75th Anniversary Celebration hosted by the Texas Regional Office. In addition, the TTAB participated in the Lanham Act 75th Anniversary event hosted by the USPTO headquarters, Trademark Modernization Act Roundtables, the World IP Forum, American Bar Association events, The George Washington University Law School trademark class, the Utah IP Summit, the State Bar of Texas Advanced IP Law Course and Annual Meeting, and an IP Law Association of Chicago event, to name a few. Furthermore, the TTAB performed outreach to various law school clinics to assist in formulating pro bono guidance and continued completely virtual hearings with few interruptions in the process.

Intellectual Property STRATEGIC GOAL III

WHAT IS THE ROLE OF THE USPTO IN INTELLECTUAL PROPERTY POLICY?

The USPTO advises the President—through the Secretary of Commerce—and federal agencies on domestic and international IP policy issues, including IP protection and enforcement in other countries. The USPTO's Strategic Plan highlights these activities in Strategic Goal III: Provide Domestic and Global Leadership to Improve IP Policy, Enforcement, and Protection Worldwide.

STRATEGIC GOAL III:

PROVIDE DOMESTIC AND GLOBAL LEADERSHIP TO IMPROVE INTELLECTUAL PROPERTY POLICY, ENFORCEMENT, AND PROTECTION WORLDWIDE

The USPTO is required by statute to provide guidance to the Secretary of Commerce and federal agencies on domestic and international IP issues, as well as U.S. treaty obligations. The USPTO's initiatives to fulfill this mandate are reflected under Strategic Goal III. The USPTO leads negotiations on behalf of the United States at WIPO; advises and assists the United States Trade Representative (USTR) in the negotiation and implementation of the IP provisions of free trade agreements; advises the Secretary of Commerce and the administration on a full range of IP policy matters, including in the areas of patents, designs, copyrights, trademarks, plant variety protections, and trade secrets. The USPTO also develops and delivers programs on the protection, use, and enforcement of IP; conducts empirical studies on IP; and interacts with other IP offices and international organizations on matters involving IP.

OBJECTIVE 1: PROVIDE LEADERSHIP AND EDUCATION ON DOMESTIC INTELLECTUAL PROPERTY POLICY AND AWARENESS

The USPTO works to meet Objective 1 by playing a leadership role in domestic IP initiatives and policy development for the administration and engaging with Congress and federal agencies on legislative efforts to improve the IP system. In addition to formulating policy, the USPTO conducts various educational and training programs on IP, encourages and undertakes empirical studies on IP and innovation's economic impact, and improves access to IP-related data.

PROVIDE DOMESTIC POLICY FORMULATION AND GUIDANCE ON KEY ISSUES IN ALL FIELDS OF IP ENFORCEMENT AND PROTECTION

Throughout FY 2021, USPTO officials provided policy formulation and guidance by organizing numerous briefings for congressional staff and conducting public meetings to solicit stakeholder views on a wide range of IP policy matters, including patent-eligible subject matter and steps for addressing fraudulent trademark applications. There was an "Overview of the USPTO's trademark register protection initiatives" on Sept. 23, 2021, put on by TMEO. Significant initiatives are detailed below.

Drive Artificial Intelligence. The USPTO expects AI to produce a new wave of innovation and creativity, posing novel challenges and opportunities for IP policy. The USPTO has engaged in the AI-IP policy discussion through a variety of undertakings, including:

 An updated public dataset produced by the USPTO's Office of the Chief Economist (OCE), the Artificial Intelligence Patent Dataset (AIPD). The dataset identifies AI trends across companies, technologies, and locations from 1976 to 2020 for granted patents and from 2000 to 2020 for pre-grant patent publications—and provides training data for complete replication.

- Active participation in international forums, such as the five leading IP offices' (IP5) New Emerging Technologies/Artificial Intelligence Task Force and WIPO conversations on AI and emerging technology.
- The publication of a USPTO report, "Public Views on Artificial Intelligence and Intellectual Property Policy," which summarized responses to two Federal Register Notices that invited comments on IP issues related to Al.
- The publication of a page on the USPTO's website with information on the agency's AI initiatives and other AI-related information.
- The design and planning of two public events on different aspects of AI and IP: one devoted to copyright issues in ML and the other to patent issues in Al and the life sciences.
- The provision of IP expertise to the National Science and Technology Council's subcommittee on ML and AI.

Maintain the COVID-19 Response Resource Center. The USPTO launched the online COVID-19 Response Resource Center in FY 2020 to provide stakeholders and other interested parties with improved access to USPTO initiatives, programs, and other helpful, IP-related information regarding the COVID-19 pandemic. The center continues to serve as a centralized location for information and assistance, allowing users to learn about various USPTO initiatives easily and aiding the public throughout the ongoing pandemic. These COVID-19-related initiatives include the Patents 4 Partnerships marketplace, a platform created for the licensing of technologies related to COVID-19, and the Prioritized Examination Pilot Programs, which aim to accelerate the evaluation of patent and trademark applications for technologies related to COVID-19. The resource center also includes information on the USPTO's Pro Bono Program; voluntary, early patent application publication; resources for inventors and small businesses; trademark counterfeiting and consumer fraud; and international COVID-19 developments.

Enhance Patents 4 Partnerships. A key deliverable in FY 2020 was the rapid development of Patents 4 Partnerships, an online platform created by the USPTO to unite parties that have COVID-19-related technologies available for voluntary licensing with parties that have an interest in these technologies and the ability to commercialize them. Patents 4 Partnerships provides a centralized and easily accessible platform for listing U.S. patents and patent application publications, and offers potential licensees a database of available technologies that is searchable by an extensive range of criteria.

In FY 2021, the USPTO worked to enhance the usefulness of the Patents 4 Partnerships platform by increasing the number of listed entries through additional outreach to industry and U.S. federal laboratories. The USPTO is also considering expanding Patents 4 Partnerships or creating a new, analogous platform to focus on green technologies.

ENGAGE OTHER U.S. GOVERNMENT AGENCIES, STAKEHOLDERS, AND CONGRESS ON LEGISLATION THAT IMPROVES THE IP SYSTEM

In FY 2021, several of the USPTO's legislative priorities were included in the FY 2021 appropriations act (Pub. L. 116-260)—namely, the TMA, the Copyright in Small-Claims Enforcement Act, and the Protecting Lawful Streaming Act. In addition, two legislative changes were enacted that will improve the functioning of the USPTO: the FY 2021 appropriations act increased the USPTO's representation funds for use by the agency's IP attachés, and the USPTO's Telework Enhancement Act Pilot Program was made permanent through the National Defense Authorization Act for FY 2021 (Pub. L. 116-283).

The USPTO continued to engage Congress, other U.S. government agencies, state and local elected officials, and stakeholders to discuss and promote effective and balanced, IP-related legislation, policies, administrative actions, and programs. This engagement included efforts to promote increased diversity in the patent system as well as technical assistance on legislative proposals on topics such as drug pricing, secondary liability for online marketplaces that sell counterfeit goods, and enhancements to the USPTO's Patents for Humanity Program. The USPTO also continued its cooperative educational efforts with the U.S. Small Business Administration (SBA).

Combat the Sale of Counterfeit Goods. During FY 2021, the USPTO participated in efforts to implement the actions recommended in a report published by the Department of Homeland Security, "Combating Trafficking in Counterfeit and Pirated Goods." The report was published pursuant to a Presidential Memorandum issued in April 2019 that tasked an interagency working group with identifying appropriate administrative, statutory, regulatory, and other actions as well as private sector best practices for adoption by the U.S. government in the fight against counterfeiting. The USPTO is leading the efforts on assessing the law of secondary trademark infringement liability as it applies to platforms and on establishing a national consumer awareness campaign.

Conduct Congressional Studies, Reports, and Engagement. At the request of certain congressional offices, the USPTO conducted two separate studies and reported its findings to the offices. The first report, transmitted on August 31, 2021, summarized the USPTO's findings on the extent to which patent and trademark rights holders experienced infringement by states and state entities without the availability of adequate state remedies. The report identified instances of infringement by state entities from 1985 through the present, but it made no determination on whether the level of infringement identified was sufficient to support legislation to abrogate state sovereign immunity for infringement. The second request was that the USPTO study the effect of section 101 jurisprudence on investment, research, and innovation and issue a report on its findings by March 5, 2022. As part of the study, on July 7, 2021, the USPTO issued a request for information in the Federal Register seeking public input on the impact of section 101 jurisprudence.

The USPTO briefed congressional staff on budgetary, operational, and IP policy issues, including the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), improvements and changes to patent quality programs, efforts focused on agency fee collections, efforts to increase the transparency of patent ownership, ways to expand the participation of underrepresented groups in the patent system, post-issuance patent review proceedings, and initiatives to declutter the Trademark Register.

PROVIDE DOMESTIC EDUCATION ON IP AT ALL LEVELS, INCLUDING TO U.S. **GOVERNMENT AGENCIES, STAKEHOLDERS, THE PUBLIC, AND STATE AND LOCAL COMMUNITIES**

The USPTO provides IP educational programming to improve IP laws and their administration domestically and around the world and to enhance IP awareness and technical capacity. In FY 2021, the USPTO conducted 250 training programs through its Global Intellectual Property Academy (GIPA), including programs coproduced with the USPTO's regional offices, serving over 17,800 individuals (see Figures 23 and 24). Approximately 43% of all attendees were representatives of domestic, small and medium-sized enterprises (SMEs); IP practitioners; and IP owners and users. Approximately 57% were patent, trademark, and copyright officials; prosecutors; police; customs officials; and policy makers from the United States and 131 other countries, including intergovernmental organizations.

The USPTO provides IP training for U.S. government officials at the federal, state, and local levels. Programs in FY 2021, conducted in-person and virtually, included a decades-long partnership with the U.S. Department of State's Foreign Service Institute to train Foreign Service officers and an ongoing effort with the National Association of Attorneys General to train state attorneys general. Intermediate and advanced training in all areas of IP was offered to U.S. federal government officials as well.

The USPTO also continued its support of **STOPfakes.gov**, the U.S. government's one-stop shop for tools and resources for use in the protection and enforcement of IP rights. The USPTO's FY 2021 contributions included an update to its China Intellectual Property Rights Toolkit, a comprehensive guide for U.S. stakeholders doing business in China.

In FY 2021, the USPTO expanded access to the innovation ecosystem demographically and economically by partnering with the SBA and SBA-funded small business support organizations, CBP, and the U.S. Copyright Office.

Recent programming has covered all areas of IP and focused on the importance of IP protection and enforcement to U.S. companies doing business abroad. One initiative, the China IP Road Show series, has focused on educating U.S. businesses of all sizes on how to better protect and enforce their IP in China. This popular series, which has reached more than 6,200 participants since 2017, pivoted in 2020 from a series delivered in person in various U.S. cities to a virtual program format. The nine programs hosted in FY 2021 addressed patenting in China, IP protection and enforcement, U.S. government resources, legislative and case law changes following the signing of the U.S.-China Phase One Agreement, and a two-part series on China IP basics.



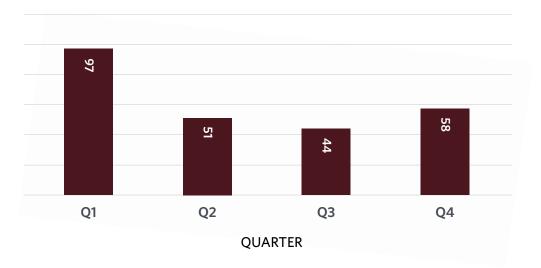
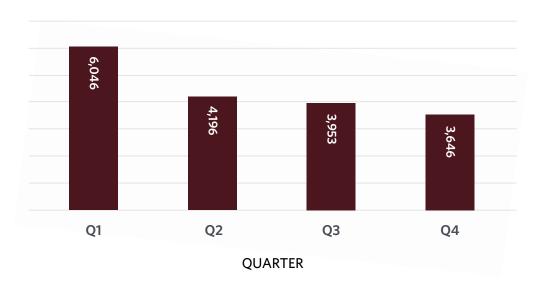


FIGURE 24: NUMBER OF PEOPLE, INCLUDING FOREIGN GOVERNMENT OFFICIALS AND U.S. STAKEHOLDERS, TRAINED ON BEST PRATICES TO PROTECT AND ENFORCE INTELLECTUAL PROPERTY



Leverage Technology. In lieu of conducting live, in-person programs in FY 2021, the USPTO continued to utilize technology to make its training programs more efficient and expand their reach. In FY 2021, GIPA conducted/delivered 250 programs with a distance learning or remote engagement component.

GIPA's established capacity for e-learning supported a successful pivot to all-remote delivery of its programs in mid-FY 2020, which continued through FY 2021. This included developing the technological capability to run virtual, international meetings with simultaneous interpretation as well as providing access to recordings and materials from past webinars.

For the first time, the USPTO broadcast a public event for World IP Day on April 26, 2021. The event highlighted USPTO resources for SMEs in support of WIPO's World IP Day theme for 2021, "IP and SMEs: Taking your ideas to market."

GIPA also continued its popular webinar initiative that provides IP education to awardees of the SBA's Small Business Innovation Research and Small Business Technology Transfer programs.

In FY 2021, GIPA continued its decade-long commitment to producing and maintaining in-depth, on-demand content through distance learning on the USPTO's website and its YouTube playlist. These modules are available in five languages and cover six areas of IP protection and enforcement. In addition, self-study materials—including recordings of events, training slides, and IP toolkits—were updated for asynchronous learning. Newer modules and micro-learning videos include an updated "Introduction to Patent Protection" video and a short video on the protection of trade secrets. Collectively, this on-demand content has drawn nearly 200,000 unique views.

The USPTO also continued to expand the reach of its Go for Real anti-counterfeiting campaign, a public information campaign designed to educate tween and teen consumers as well as their caregivers and educators regarding the dangers of counterfeit goods and the importance of buying brand-name products. Materials have also been distributed to local law enforcement agencies to use as part of their community outreach programs. In FY 2021, the USPTO released the Go for Real Dupe Detector kit, an e-book providing educational information and activities, including an online shopping game.

PROVIDE INPUT ON ONGOING COURT CONSIDERATIONS ON KEY IP ISSUES

The Supreme Court decided one significant copyright case in FY 2021 and granted a writ of certiorari in another. In *Google v. Oracle*, the court ruled that Google's copying of 11,500 lines of computer code from Oracle's Java SE platform was fair use. In *Unicolors, Inc. v. H&M Hennes & Mauritz, L.P.*, the court will provide guidance regarding the circumstances under which suits for copyright infringement should be dismissed due to inaccurate information in applications for copyright registration. Additionally, in *Minerva v. Hologics*, the Supreme Court considered patent issues related to patent assignor estoppel, a legal doctrine that prevents a patent owner who assigns his patent rights to another from later challenging the validity of the assigned patent or any patents stemming from it. The Supreme Court is also considering a petition for certiorari in *American Axle & Manufacturing Inc. v. Neapco Holdings LLC* focused on patent subject matter eligibility. Beyond the Supreme Court, the Court of Appeals for the Federal Circuit also addressed patent policy issues, such as anti-suit and anti-interference injunctions in *Ericsson v. Samsung*. The USPTO provided technical, legal, and policy advice in DOC and interagency discussions in all of these cases.

ADVOCATE FOR THE VALUE OF IP AS A CRITICAL DRIVER OF INNOVATION AND CREATIVITY

The USPTO's work on developing IP policy is supported by empirical studies, including those on the economic impacts of IP and innovation conducted by the OCE. In FY 2021, the OCE published two academic journal articles, including "Examination Incentives, Learning, and Patent Office Outcomes: The Use of Examiner's Amendments at the USPTO."

The OCE also continued its ongoing efforts to improve the availability and quality of IP data, releasing six datasets covering a broad scope of IP-related information. All are available to the public on the **USPTO's website**.

DUPE DETECTOR
HELPS TEENS AND
TWEENS BE AWARE
OF COUNTERFEIT
PRODUCTS

Counterfeit and pirated goods have the potential to cause real harm to those who buy them. In an effort to reach out to young consumers about this, the USPTO and its partner in the Go for Real campaign, the National **Crime Prevention Council,** unveiled a new Dupe **Detector kit. Specifically** targeted at teens and tweens, the kit consists of an e-book that provides educational information and activities, including an online shopping game.



OBJECTIVE 2: PROVIDE LEADERSHIP AND EDUCATION ON INTERNATIONAL IP POLICY AND AWARENESS

The USPTO advances this objective in many settings and through a variety of undertakings. It helps lead efforts to improve IP systems in other countries and provides technical expertise in negotiating and implementing international agreements to enhance IP protection and enforcement.

PROVIDE INTERNATIONAL POLICY FORMULATION AND GUIDANCE ON KEY ISSUES IN ALL FIELDS OF INTELLECTUAL PROPERTY ENFORCEMENT AND PROTECTION

Throughout FY 2021, the USPTO provided policy advice and technical expertise on international IP matters to multiple federal agencies, including the Office of the USTR, the Office of the U.S. Intellectual Property Enforcement Coordinator, the Department of State, the Department of Homeland Security, and other bureaus of DOC.

The USPTO assisted the Office of the USTR in preparing its annual "Special 301 Report," which identifies U.S. trading partners that have not provided adequate and effective IP protection and enforcement and overall market access for U.S. rights holders. The USPTO also assisted the Office of the USTR in preparing its annual Notorious Markets List, which highlights online and physical marketplaces that engage in and facilitate piracy and counterfeiting.

In FY 2021, the USPTO provided technical advice to the Office of the USTR on its Section 301 investigation, "China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation."

The USPTO serves as the IP advisor to DOC's National Telecommunications and Information Administration, which represents the U.S. government on the Governmental Advisory Committee of the Internet Corporation for Assigned Names and Numbers (ICANN). ICANN manages the internet domain name system in the generic, top-level domains, including WHOIS, a protocol for searching databases of records containing registration information about registered domain names. Law enforcement, IP stakeholders, and cybersecurity researchers use WHOIS to track down fraud, abuse, and infringement. In FY 2021, the USPTO focused on several internet-related, priority issues for IP stakeholders, the most critical of which involved ensuring continued access to WHOIS domain name registrant contact information. The USPTO was also instrumental in evaluating the treatment of geographical indications (GIs) in generic, top-level domains; the protection of intergovernmental organization acronyms in second-level domains; and tools for protecting against cybersquatting.

In response to the recent surge in the number of patent and trademark applications in China, the USPTO published a study in January 2021, "Trademarks and Patents in China: The Impact of Non-Market Factors on Filing Trends and IP Systems." The study found that a variety of nonmarket factors contributed to IP filings in China.

PROVIDE LEADERSHIP, SUPPORT, AND ADVICE TO THE ADMINISTRATION IN NEGOTIATING AND MONITORING COMPLIANCE WITH IP AGREEMENTS AND IP PROVISIONS IN TRADE AGREEMENTS

In FY 2021, the USPTO continued to provide technical advice on IP protection and enforcement in connection with ongoing negotiations of trade agreements and to monitor the implementation of existing agreements.

USPTO staff serve as technical advisors to USTR in the implementation of the United States-Mexico-Canada Agreement (USMCA), which went into effect on July 1, 2020.

Its IP chapter establishes a high standard for up-to-date protection and IP enforcement with improved IP standards and greater transparency. On April 27, 2021, USPTO staff participated in the first USMCA Intellectual Property Rights Committee meeting among the three countries.

The USPTO also assisted DOC and the USTR in examining trade agreement compliance and abuse. During FY 2021, the USPTO advised the USTR on IP issues related to the World Trade Organization (WTO), including the submission of comments on 18 Trade Policy Reviews and the proposed accession of four countries to the WTO. The USPTO continued to assist the USTR in monitoring the implementation of the U.S.-China Phase One Agreement as well.

The USPTO also participated in exploratory discussions with the United Kingdom as part of the U.S.-UK Trade and Investment Working Group, providing technical advice on IP issues to the USTR and participating in the initial negotiating rounds of the U.S.-UK Free Trade Agreement. Additionally, the USPTO provided technical advice on IP issues in the initial negotiation rounds of the U.S.-Kenya Free Trade Agreement.

Other international engagements included providing IP expertise to the Department of State in negotiations of the Hague Convention on the Recognition and Enforcement of Foreign Judgments in Civil or Commercial Matters and advising the State Department on numerous IP issues that arose in negotiations at the Organization for Economic Co-operation and Development (OECD); the G7; the G20; and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

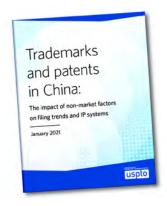
LEAD ADMINISTRATION EFFORTS AT WIPO AND OTHER INTERNATIONAL ORGANIZATIONS TO IMPROVE INTELLECTUAL PROPERTY ENFORCEMENT, PROTECTION, AND COOPERATION WORLDWIDE

The USPTO represents the U.S. government in IP discussions in intergovernmental organizations, such as WIPO, and in forums of the world's largest IP offices. The latter includes the IP5 for patents, TM5 for trademarks, ID5 for industrial designs—each involving the relevant offices of the United States, China, Europe, Korea, and Japan—and the Trilateral Co-operation, which brings together the IP offices of the United States, Europe, and Japan. Beginning in mid-FY 2020, all meetings of these organizations and forums were held virtually, and this continued throughout FY 2021. Notably, in October 2020, the USPTO hosted the virtual annual meetings of the ID5 and TM5. The USPTO's efforts in these forums focus on furthering U.S. IP policy, enhancing the international framework administered by WIPO, and improving IP systems around the world. The USPTO also participated in negotiations in other international forums, such as the United Nations Intergovernmental Conference on Marine Biodiversity of Areas beyond National Jurisdiction.

Administer WIPO PCT Applications. The United States is a member of the WIPO-administered PCT, which enables inventors to apply for patent protection in multiple countries via a single, international application. In FY 2021, the USPTO continued to lead the United States' participation in a successful PCT program through which patent examiners from the IP5 collaborate on corresponding PCT applications pending at their respective offices. The program helps U.S. rights holders by facilitating more comprehensive reviews of their PCT patent applications. Other successful PCT efforts include participating in the WIPO Fee Transfer Service, which simplifies the handling of many PCT fees between offices; co-leading the task force for PCT Minimum Documentation, which is developing and updating criteria for the inclusion of various sources of prior art used by PCT examiners worldwide; and promoting various initiatives to make the PCT more efficient and user-friendly.

THE FLOOD OF
PATENT AND
TRADEMARK
APPLICATIONS FROM
CHINA, EXPLAINED

The volume of trademark and patent applications filed in China has outpaced that of global competitors in recent years. In a groundbreaking report on this phenomenon, **USPTO** researchers found that a variety of nonmarket factors including subsidies, government mandates, bad-faith trademark applications, and resulting countermeasuressubstantially contributed to the number of trademark and patent applications in China, thus overstating innovation activity and narrowing the scope of available protection for legitimate rights holders.



Lead the WIPO Standing Committee on Copyright and Related Rights. In FY 2021, the USPTO headed the U.S. delegation at two virtual meetings of the WIPO Standing Committee on Copyright and Related Rights. At these meetings, the USPTO provided leadership to advance U.S. interests across a broad range of international copyright matters, including the protection of broadcasting organizations; copyright limitations and exceptions for libraries and archives, educational and research institutions, and persons with disabilities; and copyright issues in the digital environment.

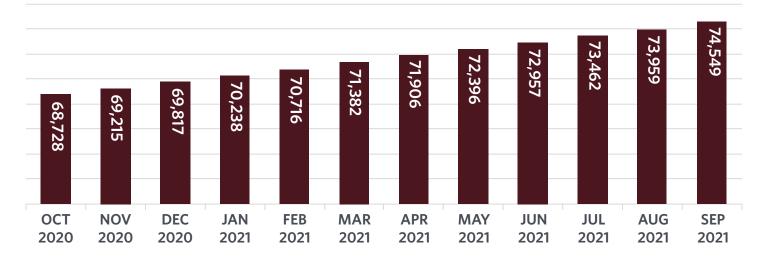
Assist the International Union for the Protection of New Varieties of Plants. In FY 2021, the USPTO helped facilitate new members' accession to the International Union for the Protection of New Varieties of Plants (UPOV) and provided educational programs for UPOV members. Additionally, the USPTO represented U.S. interests in UPOV working group meetings to advance the development of robust plant variety protection.

Advance the international dialogue on geographical Indications. In FY 2021, the USPTO advanced the U.S. position on GIs, place names, signs, and symbols that consumers associate with a particular good that only comes from a particular place by reviving discussions at WIPO and advancing a more balanced approach to GI examination systems. This balance is needed to mitigate the potentially harmful effects of revisions to WIPO's Lisbon System for the International Registration of Appellations of Origin. More generally, the USPTO continues to explore options for a system at WIPO that would better protect the GI-related interests of all U.S. stakeholders and to assist the USTR in pursuing trade agreements with appropriate GI provisions. The USPTO also continues its ongoing engagement with foreign IP offices by providing information and training sessions on the U.S. system for GI protection, including the discussion of application and examination requirements and post-registration maintenance obligations.

Improve Efficiency and Cooperation in the Global Patent System. The ongoing effort to enhance the global patent system's efficiency focuses on worksharing among patent offices. Today's primary worksharing mechanism is the PPH framework, which allows an applicant who receives a positive ruling on a patent application from one participating office to request accelerated prosecution of corresponding applications in other participating offices. The PPH framework can facilitate patent grants at less expense in multiple jurisdictions, and it allows the offices to leverage each other's work.

The global PPH framework continues to be embraced worldwide. As of September 30, 2021, a cumulative total of 74,549 applications with petitions had been filed under the PPH, with 65,906 patents granted. Figure 25 shows the USPTO's cumulative PPH filings for FY 2021.

FIGURE 25: CUMULATIVE PPH FILINGS IN FY 2021



Global PPH and the closely related IP5 PPH represent a key evolution in the USPTO's PPH framework efforts. They simplify the existing network by replacing multiple, bilateral PPH arrangements with a single, centralized framework, creating efficiencies for both IP offices and applicants.

On December 7, 2020, the USPTO launched a Parallel Patent Grant (PPG) collaboration with the Mexican Institute for Industrial Property (IMPI). The PPG is a new form of patent worksharing based on the proven PPH framework that facilitates expedited grants of Mexican patents for parties who have USPTO-granted patents for the same invention. In the current, initial phase of PPG, the IMPI invites applicants to participate in the program after identifying qualifying Mexican patent applications. The PPG furthers a commitment of the USMCA to encourage increased cooperation among the North American patent offices to facilitate the sharing and use of search and examination work.

Separately, the USPTO signed a patent validation arrangement with Cambodia's Ministry of Industry, Science, Technology, and Innovation in October 2020 that took effect in early 2021. This arrangement allows a holder of a U.S. patent to request the issuance of a corresponding patent in Cambodia if certain requirements have been met without the need for the application to undergo a substantive examination.

Engage with international partners at the IP5 offices. The IP5 offices continued to work collaboratively to harmonize patent examination practices, including the application of emerging technology solutions in the examination process. Notably, the five offices maintained cooperation amid the global pandemic by conducting virtual meetings and sharing information about the relief measures taken by each in response to the COVID-19 pandemic to support and assist stakeholders.

Improve Efficiency and Cooperation in the Global Industrial Design System. The USPTO's efforts in FY 2021 to improve the global industrial design system included leading the discussion at WIPO regarding new technological designs, including designs for graphical user interfaces, icons for electronic displays, and designs for typefaces and type fonts; continuing collaborative work on a range of projects, such as the development of recommended practices for design filing, 3D printing, and remedies for infringement, with the ID5 partners; and continuing a series of industrial design programs at the IP Experts Group of the Asia Pacific Economic Cooperation (APEC). A virtual, international forum on the protection of industrial designs that focused on global trends and developments around the globe was organized by the USPTO and held in February 2021.

Improve Efficiency and Cooperation in the Global Trademark System. Progress toward improving the global trademark system in FY 2021 included continued expansion of a harmonized pick list of descriptions of trademark goods and services used in trademarked offices around the world and the translation of new entries into multiple languages; the advancement of a TM5 project to combat fraudulent and misleading solicitations to trademark owners; and the development of a new project to exchange operational information among trademark offices, particularly in response to unforeseen disruptions. Additionally, the USPTO continued its engagement at WIPO venues—such as the Standing Committee on the Law of Trademarks, Industrial Designs, and Geographical Indications and the Madrid Working Group—to represent the interests of U.S. stakeholders.

Engage with Asia-Pacific Economic Cooperation Economies. The USPTO conducted and published a survey of the treatment of illicit streaming devices in APEC economies and held an online workshop on content streaming protection and enforcement issues. These are the first steps in creating an informational baseline in the APEC region to support the adoption of an effective practices document for policy makers and law enforcement agencies. Additionally, as part of an ongoing series, the USPTO hosted APEC economies in a two-day virtual workshop focused on the importance of modern industrial design protection systems around the globe.

ENGAGE WITH OTHER GOVERNMENTS TO IMPROVE THEIR IP ENFORCEMENT AND PROTECTION, INCLUDING BY PROVIDING EDUCATION AND CAPACITY BUILDING

In FY 2021, the USPTO continued to offer capacity building programs through GIPA to help improve IP systems in key countries and regions, including through expanded virtual training. Virtual programs were conducted in multiple languages, around the clock to accommodate target audience time zones. Some programs were developed in collaboration with other U.S. government agencies, including DOC's Commercial Law Development Program, the Department of Justice, and the Department of Homeland Security.

The programs addressed a full range of IP matters, including the enforcement of IP rights at national borders, internet piracy, health and safety threats from counterfeit goods, trade secrets protection and enforcement, copyright policy, and patent and trademark examination. Participants included officials with IP-related responsibilities, such as judges, prosecutors, health officials, customs officers, patent and trademark examiners, and IP office administrators.



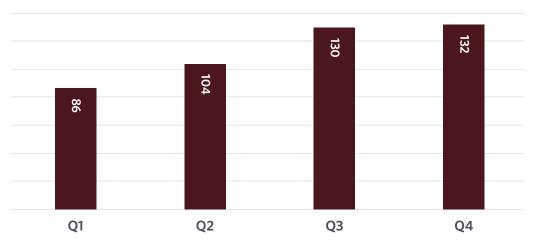
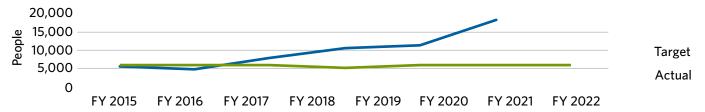


TABLE 21: NUMBER OF PEOPLE, INCLUDING FOREIGN GOVERNMENT OFFICIALS AND U.S. STAKEHOLDERS, TRAINED ON BEST PRACTICES TO PROTECT AND ENFORCE IP

Fiscal Year	Target	Actual
2016	5,000	4,975
2017	5,000	4,134
2018	5,000	7,242
2019	4,500	9,854
2020	5,000	10,688
2021	5,000	17,841
2022	5,000	

Target met

Measure updated in FY 2018 to include U.S. stakeholder education, to reflect administration priorities.



Trend: The trend line indicates that the performance trend is increasing with significant variability in predicting future results. Additional discussion for this measure can be found below.

In FY 2021, the USPTO trained over 17,800 participants, including over 10,000 foreign government officials representing 131 countries and intergovernmental organizations (see Figure 26 and Table 21). A complete list of all countries represented at GIPA trainings in FY 2021 is available online at the **Data Visualization Center webpage**.

Table 21 shows the total number of people, including foreign government officials and U.S. stakeholders, trained through GIPA in FY 2021.

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TRAINING AND OUTREACH FOR AFRICAN IP OFFICES

One of the USPTO's mandates is to conduct training and capacity building programs for officials of foreign IP offices. Among those held in FY 2021 was a series of virtual programs done in partnership with the African Regional **Intellectual Property** Organization (ARIPO). These programs brought together approximately 200 officials from ARIPO's 20 member states and observers to learn about such topics as IP enforcement, approaches to stemming counterfeit pesticides and seeds, ways to foster technology transfer, trademarks, geographical indications, copyright, patents, and trade secrets. These efforts help protect the interests of U.S. rights holders doing business in the region by strengthening the IP infrastructure in these countries.



WORK WITH THE ADMINISTRATION TO IMPROVE IP ENFORCEMENT AND PROTECTION IN COUNTRIES OF INTEREST, INCLUDING THROUGH THE IP ATTACHÉ PROGRAM

The USPTO worked throughout FY 2021 to improve IP protection and enforcement for U.S. stakeholders in countries of interest. Both its headquarters-based IP experts, and its IP attachés provided training and other technical assistance to foreign government officials to advance the interests of the U.S. government and U.S. stakeholders. The IP attachés also provided information about the latest developments in international IP to other U.S. government agencies, both in Washington D.C. and abroad, to better inform U.S. policy development.

Enhance the IP Attaché Program. The IP Attaché Program is a key component of the USPTO's effort to improve IP systems internationally. Through this program, the USPTO selects IP experts to serve as attachés at U.S. embassies, consulates, and missions in different cities throughout the world. They advocate for improving IP policies, laws, and regulations abroad to benefit U.S. businesses, entrepreneurs, and other stakeholders. In addition, the attachés train foreign officials on effective IP enforcement; monitor economic, legal, and legislative developments in their regions that might affect U.S. stakeholders' IP interests; conduct public awareness programs to educate audiences on IP and its value; and provide valuable information to U.S. stakeholders entering foreign markets or conducting business abroad about how to navigate foreign laws and regulations, how foreign courts and governments work, and how to protect and enforce IP abroad. Currently, there are 13 attachés in the program, supported by IP specialists and staff.

In FY 2021, the USPTO worked to enhance interactions between the attachés and U.S. stakeholders through meetings with various rights holder groups, including the American Intellectual Property Law Association (AIPLA), the International Anti-Counterfeiting Coalition (IACC), and the International Trademark Association (INTA). The IP Attaché Program assisted 8,993 U.S. stakeholders; conducted 3,909 meetings with foreign government officials, 89 training programs for 4,097 participants, and 68 public awareness programs for 7,791 participants; submitted 519 weekly activity reports; and reported 71 identifiable successes. (These figures overlap with metrics reported by GIPA on page 107.) The attachés also continued to lead the USPTO's successful implementation of action plans in prioritized countries, as shown in Table 22. During the COVID-19 pandemic, IP attachés have continued to work in their home offices, helping U.S. stakeholders with IP interests around the world.

Also in FY 2021, the USPTO continued its work to enhance the general effectiveness of the IP Attaché Program. Measures included elevating the diplomatic rank of attachés in Beijing, Brussels, New Delhi, and Mexico City; deploying attachés to Brussels, Geneva, and Rio de Janeiro; and selecting attachés for Johannesburg and Bangkok.

Work with the Administration to Improve IP Enforcement and Protection in Countries of Interest, Including Through the IP Attaché Program

The USPTO worked throughout FY 2021 to improve IP protection and enforcement for U.S. stakeholders in countries of interest. Both its headquarters-based IP experts, and its IP attachés provided training and other technical assistance to foreign government officials to advance the interests of the U.S. government and U.S. stakeholders. The IP attachés also provided information about the latest developments in international IP to other U.S. government agencies, both in Washington D.C. and abroad, to better inform U.S. policy development.

Engage with Chinese Officials. In FY 2021, the USPTO met virtually with officials from CNIPA to discuss the work plan between the two agencies, including programs to facilitate the implementation of the commitments China made under the U.S.-China Phase One Agreement. The USPTO also held technical discussions with Chinese government officials with IP responsibilities. These included officials from CNIPA, the State Administration for Market Regulation, the Ministry of Public Security, the Ministry of Commerce, the Ministry of Finance, the Supreme People's Court, and the Supreme People's Procuratorate.

The USPTO continued to monitor changes to Chinese IP-related laws and regulations to ensure they provided effective protection to U.S. rights holders. In FY 2021, at the completion of the U.S-China Phase One Agreement, the USPTO worked with the USTR and other U.S. government agencies to provide comments on numerous Chinese draft laws, regulations, and guidance documents regarding trade secret protection, patent linkage, patent application conduct, and the enforcement of new plant varieties.

The USPTO has three IP attachés posted to China. They work closely with U.S. law enforcement attachés and are in contact with Chinese government agencies to discuss IP enforcement challenges.

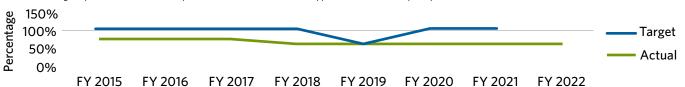
TABLE 22: PERCENTAGE OF PRIORITIZED COUNTRIES FOR WHICH IP COUNTRY TEAMS HAVE MADE PROGRESS ON AT LEAST THREE OF THE FOUR PERFORMANCE CRITERIA: FY 2016-2021

- 1. Institutional improvements of intellectual property (IP) office administration for advancing IP rights,
- 2. Institutional improvements of IP enforcement entities,
- 3. Improvements in IP laws and regulations, and
- 4. Establishment of government-to-government cooperative mechanisms.

Fiscal Year	Target	Actual
2016	75.0%	100.0%
2017	75.0%	100.0%
2018	66.0%	100.0%
2019	66.0%	66.0%
2020	66.0%	100.0%
2021	66.0%	100.0%
2022	66.0%	

Target met

Measure: Target updated in FY 2018 to reflect a decrease in the number of prioritized countries from four to three.



Trend: The trend line indicates that the performance is maintaining standards for the target. Additional discussion for this measure can be found on page 108.

ADVOCATE FOR THE VALUE OF IP AS A CRITICAL DRIVER OF INNOVATION AND CREATIVITY

In FY 2021, the USPTO continued to evaluate the critical role IP plays in promoting innovation, creativity, and product quality. One dataset in particular assists researchers and policy makers in delving deeper into the causes and consequences of AI invention. The OCE released the AIPD, which consists of two data files. These data files identify U.S. patents issued between 1976 and 2020 and pre-grant publications published through 2020 that contain at least one of several AI technology components. The files also contain the patent documents used to train the ML model that created the AIPD. Critically, a technical working paper accompanies this data and provides complete documentation for ease of use.

Mission SUPPORT GOAL

As a performance-based organization, the USPTO believes that accomplishing its organizational goals, objectives, and initiatives requires strong and diverse leadership through collaborative management. Delivering organizational excellence is a shared responsibility. Establishing a mission-oriented culture built on quality CXs, sound resource management, reliable workforce planning, and stabilized and modernized IT systems and services is critical. Delivering organizational excellence requires a workforce connected to the mission and each other. It requires a culture that understands and embraces a shared commitment to the USPTO mission, sees collaboration with fellow employees as a path to success, and is dedicated to providing a superior CX.

MISSION SUPPORT GOAL:

SUSTAIN ORGANIZATIONAL EXCELLENCE

OBJECTIVE 1: ENHANCE HUMAN CAPITAL MANAGEMENT AND FOSTER EMPLOYEE ENGAGEMENT

OPTIMIZE THE PERFORMANCE CULTURE

In FY 2021, the USPTO remained committed to fostering a high-performance workforce culture during a continued period of maximum telework. Through the use of an effective performance management system, employees received continuous coaching, feedback, and development opportunities needed to succeed and achieve results. The performance management system is effective because it:

- Draws distinctions between high-level and low-level performers
- Uses clearly defined standards and expectations at all organizational and individual levels
- Acknowledges achievements through the use of a transparent and robust reward and recognition system for high performers
- Links individual performance plans to organizational goals

The USPTO provides ongoing training each year to business units to ensure that all aspects of the performance management system are successfully applied.

In FY 2021, USPTO provided performance management training to newly hired managers in connection with the Supervisory Certificate Program and performance management essentials training to more than 900 existing managers and supervisors. The USPTO also conducted 10 training sessions during FY 2021 that covered conduct and performance and an overview of the performance management process. The primary goal of these sessions is to develop and maintain a culture of high-level performance. Additionally, training is provided to USPTO business units on the agency's cadre of awards and recognition programs, all robust and essential to incentivizing high performance.

During FY 2021, the USPTO worked diligently to implement directives related to performance in EOs and regulations.

LEVERAGE BEST PRACTICES TO ATTRACT, RECRUIT, AND RETAIN AN ENGAGED, DIVERSE, MISSION-FOCUSED, AND TALENTED WORKFORCE

In FY 2021, the USPTO remained committed to meeting its hiring goals and successfully hired 728 mission critical employees (e.g., patent examiners, trademark examining attorneys, IT specialists, human resources specialists, contract specialists, and general attorneys), most of whom were recruited and onboarded entirely virtually due to the ongoing pandemic.

The USPTO continues to refine and enhance its recruitment outreach strategies to emphasize the USPTO's mission and core organizational values. The agency relies on targeted digital campaigns and branded materials that create impactful, compelling, and meaningful engagements with both active and passive job seekers. The USPTO implemented digital recruitment strategies using its social media channels (i.e., LinkedIn, Twitter, Facebook, Instagram, and YouTube) to connect and

stay connected with potential job candidates. At the end of FY 2021, the USPTO had over 54,000 followers on LinkedIn, representing a 20% increase over FY 2020. On the @USPTOjobs account on Twitter, the USPTO realized a 14% increase in the number of followers, bringing the current total to 2,275. Through the @USPTOjobs handle, the agency hosts multiple annual Twitter chats targeting mission-critical occupations, including IP legal professionals and engineers. In FY 2021, the agency hosted its first-ever Twitter chat targeted to engineers and law students at Historically Black Colleges and Universities.

In FY 2021, 7% of patent examiners and 17% of all other hires were veterans. The USPTO continues to manage and update its Veterans "Life" page on LinkedIn, which promotes the veteran employment resources found on USPTO.gov and reinforces the agency's commitment to hiring and nurturing the careers of veterans. The USPTO participated in 18 veteran-specific recruitment events from March to May 2021, and also launched a complementary and more robust paid advertising program to attract qualified veterans. The campaign featured USPTO veteran employees in magazines and blogs targeted to veterans.

The USPTO is committed to advancing its culture of learning, and its robust career development and training programs enhance both recruitment and retention efforts. FY 2021 program activities included the following:

- **Career Coaching:** The USPTO recruited and trained 16 new coaches, nearly doubling the cadre. As of September 2021, 273 employee-clients have received over 1,066 coaching hours.
- **After Work Education (AWE):** AWE is a voluntary program available to eligible employees to develop and enhance work skills related to the USPTO's mission through classes at an accredited college or university. In FY 2021, there were 64 participants in the AWE Program.
- **Upward Mobility Program (UMP):** The UMP, which had 112 participants in 2021, enables employees to receive extensive training, preparation, and experience for a targeted position with greater advancement opportunities.
- **Administrative Professionals Excellence (APEX) Program:** The APEX Program, which enrolled 47 participants in FY 2021, provides comprehensive virtual coursework for technical and administrative support staff at the GS-5 through GS-12 levels. The curriculum includes opportunities for interactive learning with subject matter experts, computer-based training, and a capstone project.
- **Enterprise-Wide Mentoring Program:** This nine-month, formal mentoring partnership provides resources for employees to work with others to achieve their career development goals. In FY 2021, there were 228 mentoring pairs and 47 situational mentors for a total of 437 participants in this program.

The USPTO is proud to have a diverse workforce with many employees of various backgrounds and cultures. It has a network of 29 voluntary employee organizations (VEOs)—including 19 Affinity Groups—with five organizations in the Denver, San Jose, and Dallas regional offices. These VEOs are formed around a shared common background or special interest. Each group is led by a team of employees who volunteer their time to host cultural, social, and career development programs and events for their members and for the wider USPTO community. VEO leaders participate in a quarterly Council of Leaders meeting, in which they share information and resources, and participants have an opportunity to network and exchange ideas.

In FY 2021, the USPTO's Diversity Program Office developed a comprehensive Employee Groups website to host information and resources about the agency's VEOs. The site includes toolkits, templates, policies, and other documents to assist with the formation of new groups or to enhance the governance of existing groups; a calendar of events; leadership and contact information for each group; links to VEO sites; and the annual diversity wall calendar. Additionally, the Diversity Program Office developed a comprehensive "Employee Groups at the USPTO" brochure and stood up a "Meet the Employee Groups" webinar series in an effort to educate new and established employees about the groups and provide a forum for networking, discussion, and question and answer. The Diversity Program Office works collaboratively with VEOs to co-sponsor programs that promote cultural understanding, such as the annual Community Day, the International Food Sample Festival, and the Festival of Shining Lights. This fiscal year, due to COVID-19, Community Day—a widely anticipated and recognized event—was again held virtually on July 15, with 27 of 29 VEOs participating and exhibiting at the same time. Additionally, this year's 11th International Food Sample Festival was celebrated virtually through photos, videos, recipe sharing, and vendor lists provided by VEOs to support local vendors—as well as vendors from across the country—who have catered this event in the past but could not this year because of the COVID-19 shutdowns.

Also in FY 2021, the Diversity Program Office continued managing its "Engagement in the Time of Telework" initiative, launched in April 2020, in collaboration with VEO leaders. Employees continue to participate in book club meetings, diversity film festival discussions, after-hours online gaming, kids' story time, midafternoon coffee chats, recipe sharing, photography contests, art galleries, and more to continue building camaraderie and community USPTO-wide. Events and activities, including informative writeups on the current heritage month and other special announcements, were included in the Diversity@USPTO weekly newsletter, sent to nearly 500 subscribers agency-wide. Initiatives such as the annual diversity wall calendar, which features ways to incorporate diversity into daily activities and highlights heritage months, remained in high demand by employees, particularly as the 2021 wall calendar focused on the means by which employees could become better allies to various communities. Moreover, the USPTO Diversity Program Office and VEOs sponsored virtual heritage month events, including flagship and panel events with speakers, dance performances, and more. For example, in FY 2021, the USPTO provided virtual support for several Affinity Group events unique to the agency, such as the American Muslim and Arabic Cultural Association and Bangladeshi American IP Organization's joint Eid al-Fitr online luncheon to celebrate the end of Ramadan and the USPTO Military Association's virtual Walk of Thankful Recognition to commemorate Memorial Day. Additionally, the USPTO hosted inaugural keynote events for both Jewish American Heritage Month and Native American Heritage Month and sponsored its second First Generation Professionals fireside chat.

In FY 2021, the USPTO's Diversity Program Office released season three of its Diversity Download podcast, an inclusion initiative that explores various topics and aspects of diversity and inclusion through informative, entertaining, and relatable stories and segments to help USPTO employees understand what diversity is and how to build better, stronger relationships with others.

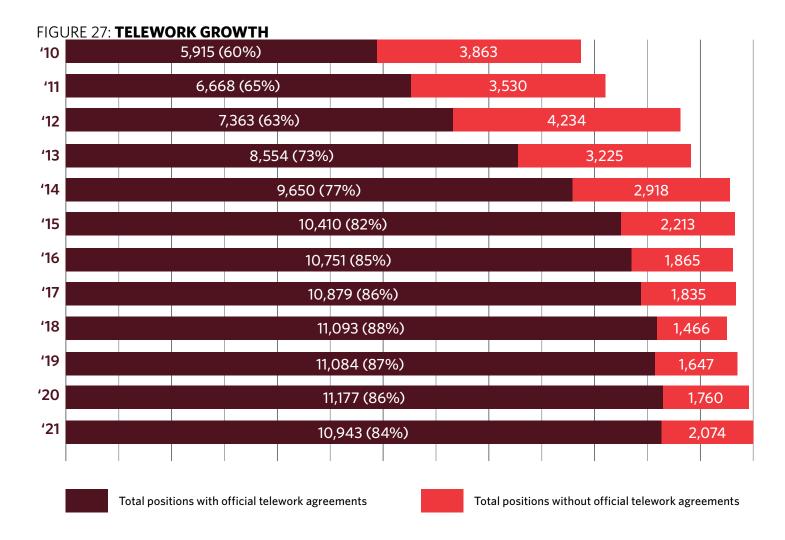
In addition, the Diversity Program—in collaboration with USPTO employees who are also alumni of the University of Puerto Rico (Univ of PR) and members of the USPTO chapter of the Society of Hispanic Professional Engineers—exhibited at the Society of Hispanic Professional Engineers' Regional Conference Career Expo in early March as well as the Univ of PR virtual career fairs in Fall 2020 and Spring 2021. "Find and Apply" employment webinars also were conducted by the USPTO Diversity Program Office for the League of United Latin American Citizens interns and staff, as well as Univ of PR students and working professionals in Puerto Rico. Additional "Find and Apply" webinars were conducted for the Federal Asian Pacific American Council and Arkansas State University. Finally, in April 2021, the USPTO Diversity Program Office—in collaboration with the Office of Human Resources Executive Resources Division and the Supervisory Patent Examiner Operations Council—sponsored four workshops for 146 employees at the GS-14 and GS-15 levels who were interested in learning more about: the Senior Executive Service (SES), Executive Core Qualifications and the SES application process, and how to overcome interview anxiety during SES interviews.

CONTINUE TO STRENGTHEN THE USPTO TELEWORK ENVIRONMENT

A structured telework program benefits the USPTO by reducing the need for additional office space, enhancing recruitment and retention, fostering greater efficiency in production and management, and providing opportunities for expanded work flexibility and better work-life balance for participating employees. Additionally, these programs improve the USPTO's climate resiliency, enabling USPTO employees to remain productive during extreme weather events, and help minimize the USPTO's impact on the environment. For instance, in the Washington, D.C., metropolitan area in FY 2021, the USPTO's telework programs spared the environment more than 52,000 tons in estimated CO₂ emissions (see Figure 30 for highlights of the environmental impact of telework in FY 2021).

Since the USPTO's first telework program was established 24 years ago with 18 trademark examining attorneys, telework has grown dramatically at the USPTO (see Figure 27), and the agency's telework programs continue to evolve. Between FY 2020 and FY 2021, the percentage of positions eligible to telework decreased slightly from 94.51% to 94.39%. (See Figure 28 for the state-by-state breakout of full-time telework participants in FY 2021). Figure 29 shows the percentage of eligible employees who teleworked in FY 2021 by organization or business unit. These values reflect those who are on permanent official telework agreements and do not reflect those who are teleworking only due to mandatory telework. Throughout FY 2021, however, an even greater share of the USPTO workforce continued to work remotely due to the ongoing COVID-19 pandemic. Effective March 23, 2020, the USPTO began operating under a mandatory/maximum telework status. This transition was seamless, since over 90% of eligible employees were already participating in telework programs, and the agency was well prepared to provide these flexibilities while continuing to serve the needs of its stakeholders during the pandemic.

Based on the lessons learned during this time, the USPTO began taking steps in FY 2021 to further expand and streamline its telework programs, including consolidating programs, providing consistency across various agency programs (where practicable), revising eligibility criteria for the programs, and making more types of positions eligible to telework more often.



As the USPTO updates its telework programs, a critical tool at its disposal is the Telework Enhancement Act Program (TEAP). The Telework Enhancement Act of 2010 granted the USPTO legislative authority to conduct the federal government's initial Telework Travel Expenses Test Program, and in January 2021, Congress made the USPTO's authority to operate this program permanent. The TEAP allows employees who telework full-time to elect to live greater than 50 miles from USPTO headquarters, thereby changing their official duty station and allowing them to continue to telework full-time. These employees waive their right to travel expenses for a limited number of mandatory annual trips back to the USPTO's Alexandria, Virginia, headquarters. In FY 2021, 3,079 employees participated in the TEAP, which is an increase of 2.8% from FY 2020.

FIGURE 28: FULL-TIME TELEWORKERS BY STATE, FY 2021

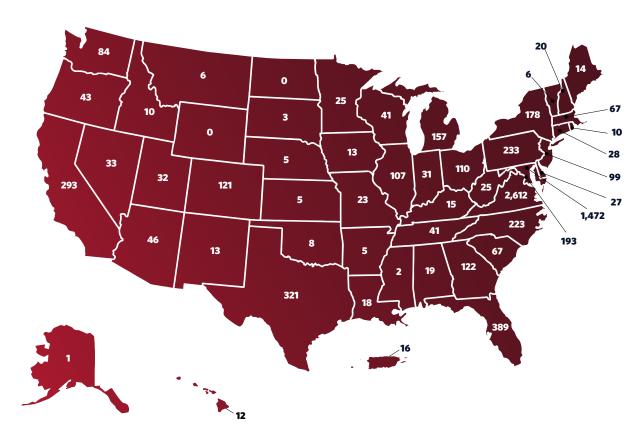


FIGURE 29: PERCENT OF EMPLOYEES TELEWORKING FY 2021 (Q4)

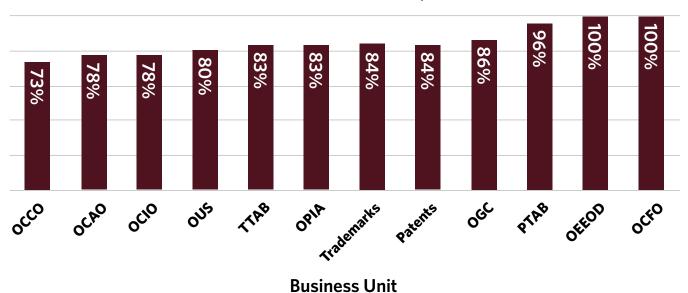
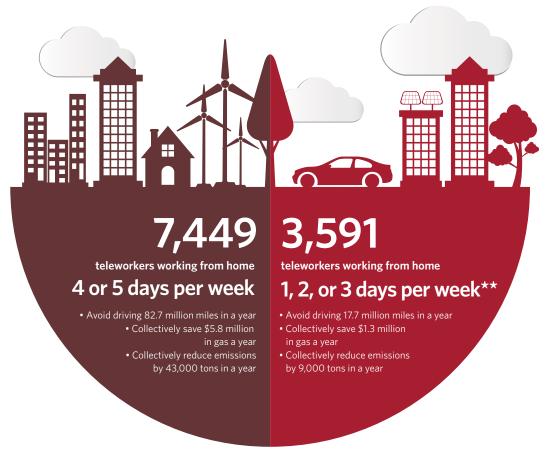


FIGURE 30: ENVIRONMENTAL IMPACT OF TELEWORK*



- * In the Washington, D.C., Metropolitan Area
- ** Includes PTP 10 hours a bi-week

These figures reflect the USPTO's normal operating status, not the maximum telework posture the agency operated under for all of FY 2021.

ENHANCE LEADERSHIP CAPABILITIES TO BETTER DEVELOP, SUSTAIN, LEAD, AND FOSTER ENGAGEMENT AND ADVOCACY IN THE AGENCY'S DIVERSE WORKFORCE

In FY 2021, the USPTO continued to ensure that leadership opportunities were marketed to a diverse population by engaging Affinity Groups, issuing internal publications, and using targeted messaging. Developing and maximizing the leadership capabilities and capacities of both internal candidates and current supervisors and leaders continues to be a primary focus, and the USPTO leveraged its leadership development program, the Leadership Academy, to further this goal. The Academy consists of several components, including the Emerging Leaders Program (ELP), the Supervisor Certificate Program (SCP), the new Ideal Leader Confidence Course (ILCC), and the SES-level Apollo Leadership Experience.

Since March 2020, all Leadership Academy programs and classes have been redesigned for and delivered in a virtual environment.

In FY 2021, in addition to cohort-based Academy programs, over 2,500 employees completed leadership development training: 534 employees completed individual and aspiring leader training offered through 24 sessions, and nearly 2,000 mid- and senior-level leaders completed training offered through nine sessions.



The USPTO delivered a successful ELP pilot in FY 2020 with 25 participants and launched the second cohort session in January 2021 with another 25 participants. The ELP is a six-month, 40-hour, cohort-based program for employees who want to develop the leadership skills necessary to become a supervisor in the future. The program is demonstrating early signs of success. Of the pilot program graduates, 10 have applied for a USPTO supervisory position, and four have obtained a promotion or other career advancement since program completion. A preliminary evaluation of the FY 2021 cohort reveals that five participants have already been promoted or achieved other forms of career advancement.

The SCP is tailored to the unique needs of new USPTO supervisors and fulfills the Office of Personnel Management's (OPM) requirement that all agencies deliver training to new supervisors during the first year of supervisory status. In FY 2021, 71 new supervisors completed this program.

Also in FY 2021, the USPTO launched the ILCC with a 48-participant pilot cohort. Designed specifically for senior-level and GS-15 supervisors, this program provides applied learning experiences facilitated by the Center for Creative Leadership alongside alumni of the Leadership Academy's Apollo Leadership Experience.



The SES Apollo Leadership Experience is a cohort-based executive development program for current members of the SES, held at the Johnson Space Center in Houston, Texas. Due to the pandemic, the USPTO did not administer this training in FY 2021. The next cohort is expected to commence in FY 2022.

In addition to these core Leadership Academy programs, in FY 2021 the USPTO held a special virtual event in association with its biannual Leadership Forum for all 1,236 supervisors, managers, and executives. This event focused on equity and community. Over three days (September 13-15), the event featured three keynote addresses and 23 workshop session opportunities, including required training on communicating for performance management, addressing conduct issues, and enhancing work-life balance.

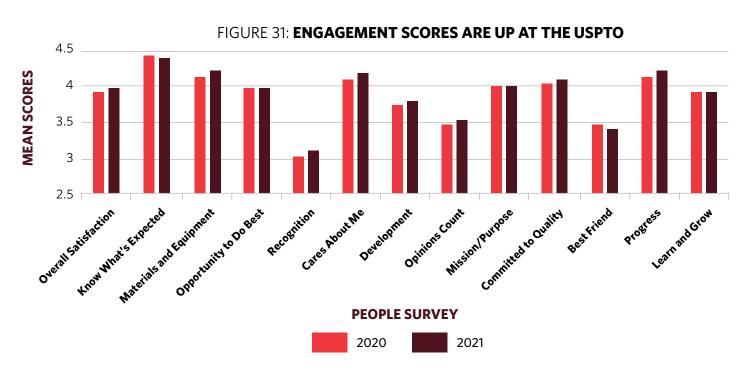


September 13-15, 2021

IDENTIFY AND DEPLOY AN ENGAGEMENT STRATEGY THAT ENSURES ALL EMPLOYEES UNDERSTAND HOW THEIR WORK RELATES TO THE USPTO MISSION



Employee feedback is central to the USPTO's engagement strategy. The USPTO administered an agency-wide People Pulse survey in March 2021. With 46% of USPTO employees responding, the agency received valuable data on employee well-being, support needed, and preferences and concerns around returning to the office. In July, the USPTO administered its third annual agency-wide People Survey (utilizing the Gallup Q12®). 45% of the agency responded, and our overall Engagement Mean rose by .04 to 3.89 (scale of 1-5), with improved scores in 11 of 13 survey areas. Overall, results were stable but trending positive.



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OBJECTIVE 2: OPTIMIZE SPEED, QUALITY, AND COST-EFFECTIVENESS OF INFORMATION TECHNOLOGY DELIVERY TO ACHIEVE BUSINESS VALUE

This objective focuses on the IT activities required to support the USPTO and move it toward the next generation of tools and services for all mission-specific systems identified under the strategic goals. The USPTO will continue to provide costeffective and transparent operations, processes, and information as it moves to accomplish its goals.

The USPTO has initiated several large and multiyear efforts that will ultimately lead to increased resilience, cost savings, and a better user experience for USPTO employees and customers. These efforts include the recently completed relocation of the USPTO's Alternate Processing Data Center from Boyers, Pennsylvania, to Manassas, Virginia; the continuing migration of critical systems to the cloud; a strengthened security posture and the implementation of Virtual Data as a Service; and the planned migration of the USPTO's on-premise data centers from Alexandria, Virginia, to the Manassas location. All of these initiatives will support the USPTO in enhancing the redundancy and resilience of IT systems and data; improving disaster recovery capabilities; maximizing computing power; and, ultimately, reducing the USPTO's physical data center footprint.

TRANSFORM PROJECTS TO PRODUCTS

The USPTO transitioned to a product-based IT delivery model as an element of the multiyear IT NWOW effort that began in FY 2019. The product catalog, fully established in FY 2020, encompasses the full scope of the USPTO's IT landscape, including operations, development, and infrastructure. In moving away from a project-based IT delivery structure toward a product catalog, the USPTO seeks to:

- Focus on the full spectrum of IT delivery across the agency
- Link IT delivery to overall agency strategies and priorities
- Align resource availability, including capacity and funding resources, staff, and contractors, more effectively
- Enable decision-making at the working level
- Communicate the strategic vision and value proposition of a product
- Articulate the plan for delivering the strategic vision
- Communicate specific resource capacity requirements for delivery
- Highlight risks and interdependencies to enable cross-product planning
- Document the technical boundaries of the product for clear accountability

The product catalog has four product lines: the Patent Product Line, Trademark Product Line, Enterprise Business Product Line, and Enterprise Infrastructure Product Line. Product lines are collections of products grouped by similarity of services, business value goals, and customers. Customers may include external users (e.g., applicants and IP data users), internal users (e.g., patent examiners, budget analysts, and IT specialists), or both. Each product line comprises both legacy systems that the USPTO is stabilizing, maintaining, and operating and modern solutions planned, in progress, or in production. The USPTO has prepared initial product roadmaps with prioritized business outcomes for each of the products within the four product lines. Descriptions of each product line follow.

Patent Product Line: The Patent Product Line encompasses products and product components that deliver business value. Both internal and external stakeholders access these products to manage the patent application process through the entire patent life cycle, including filing, examination, appeals, search, international data exchange, fees, maintenance, and reporting. Some current product components are in containment, have been stabilized, or are scheduled for retirement once modernized systems are in production.

Trademark Product Line: The Trademark Product Line encompasses products and product components that deliver business value. Both internal and external stakeholders access these products to manage the trademark application process through the entire trademark life cycle, including filing, examination, appeals, search, international data exchange, fees, maintenance, and reporting. Some current product components are in containment, have been stabilized, or are scheduled for retirement once modernized solutions are in production.

Enterprise Business Product Line: The Enterprise Business Product Line encompasses products and product components that deliver business value throughout the agency. Both internal and external stakeholders access these products to manage fee collection and refunds, communications and information dissemination, financials, procurement, budgeting, human resources, time and attendance, property and facilities, legal matters, data analytics, and associated business intelligence reporting functions. Many of the IT solutions for this product line are configured and customized COTS and government-off-the-shelf.

Enterprise Infrastructure Product Line: The core mission of the Enterprise Infrastructure Product Line (EIPL) is to provide essential technologies and services to USPTO staff and customers that are progressively better, faster, and cheaper while increasing the security, availability, and resilience of the USPTO operational enterprise. The EIPL includes major infrastructure solutions that underlie the other three product lines. Efforts to support this product line closely align with infrastructure operations, maintenance, and recovery. EIPL products include:

- End-User Services End-user computing devices and support for end users
- Platform Services Distributed and mainframe databases and middleware systems and services
- **Infra/Hosting Services Solutions** Solutions-focused, shared, strategic services to meet overarching objectives of infrastructure, cloud goals, and security implementation integration and transitions across the infra hosting products
- Infra/Hosting Services: Compute General and special-purpose devices and software programmed to carry out arithmetic or logical operations, including physical/virtual servers differentiated by platform and operating system
- Infra/Hosting Services: Data Center Purpose-built facilities housing computer equipment, including racks/cabinets and cabling, clean and redundant power, and data connectivity and environmental controls, as well as redundancy and disaster recovery services
- Infra/Hosting Services: Storage Centralized data storage for application programs and code, databases, files, media, email, and other forms of information

- Infra/Hosting Services: Cloud IT solutions inclusive of public cloud general support systems, and scalable multi-site elastic infrastructure
- Infra/Hosting Services: Network Data/voice equipment, transport methods to connect systems and people, core connectivity within data centers, and connectivity to and within office facilities and remote locations
- Delivery Services Monitoring, support, management, and operations support services for the enterprise, including the IT Service Management (ITSM) functions
- Security and Compliance Services Security compliance
- **IT Management Services** Applications and services that support strategic planning, enterprise architecture, IT finance, and IT vendor management
- **Emerging Technology and Innovation** Workshop for new services or offerings; those that are adopted will become components of other products in the product catalog

As of July 2021, over 100 product teams, made up of more than 1,000 individuals, have been trained in the USPTO NWOW and have begun working in ways aligned to key agile principles with a keen focus on frequent value delivery. Great strides were made in culture change by providing immersive learning experiences in the USPTO "Dojo." A dojo is a learning format that brings team members together and coaches them through the initial steps of developing a product roadmap, mission statement, and groomed backlog (i.e., collection of value-driven user requirements prioritized and scheduled for development).

IMPLEMENT CYBERSECURITY INITIATIVES

The USPTO's data is a strategic business asset. Therefore, it is noteworthy that federal agencies and their contractors are now operating in a heightened cyber threat environment due to the substantial increase in ransomware and supply chain cyberattacks against private and public organizations. **EO 14028, Executive Order on Improving the Nation's Cybersecurity**, issued on May 12, 2021, advises, "The United States faces persistent and increasingly sophisticated malicious cyber campaigns that threaten the public sector, the private sector, and ultimately the American people's security and privacy. The Federal Government must improve its efforts to identify, deter, protect against, detect, and respond to these actions and actors."

To address these emerging threats and ensure secure business operations, the USPTO is implementing emerging security technology, security architecture, security operations best practices, and an improved risk management framework to defend its systems and data. This implementation includes continuous and automated security at the early stages of software development and throughout the product life cycle with measures to ensure supply chain risk management. The USPTO fosters a cyclical practice of identifying, prioritizing, and remediating known vulnerabilities and weaknesses—with its high-value assets as a priority—through monitoring continuously and maintaining a standard policy on time to remediation. The work to secure the USPTO's business operations includes a focus on the transition of products from end-of-support platforms to the latest, secure versions. In FY 2021, the number of open plans of action and milestones (POA&Ms) for security vulnerabilities across all products decreased by 60% through improved remediation efforts.

ENHANCE PATENTS END-TO-END

The USPTO made significant progress on patent prosecution tools for patent examiners, patent applicants, and international partners during FY 2021. The USPTO has made many improvements to the Docket and Application Viewer (DAV) since its launch in 2015, including implementing critical functionality to support the updated time allotted for examining patent applications and the new application routing process, and FY 2021 saw the deployment of additional enhancements and functionalities necessary to mature these systems. For example, DAV will become the new application docketing tool for patent managers and the new docket management (DM) tool for examiners. A key focus remains on making critical DM performance information available to examiners as well as developing DM troubleshooting tools to support operational efficiencies. Additionally, the Official Correspondence (OC) tool that examiners use as their authoring and workflow tool was updated to expand the official production tracking and reporting functionalities for examiners and supervisors.

The new examiner search tool is a modern, scalable enterprise search tool for patent examiners. Development is taking longer than expected due to the search algorithms' complexity, performance, and scalability. The USPTO continues to make improvements to functionality, conduct stress testing, scale corrective actions for the entire patent corps, and add new foreign collections. In FY 2021, the USPTO completed the migration of over 70 million image and text data files with full English translations from over 60 countries and made this collection available to patent examiners. Training to transition to the new search tool commenced in FY 2021, was provided to more than 2,500 examiners, and will continue into FY 2022 for the remainder of the examining corps.

The USPTO has directed attention to improving application filing systems for customers. The agency's eCommerce Modernization initiative focused on providing a cohesive login system by using the USPTO's Single Sign On platform and receiving smart text Extensible Markup Language (XML) versions of key patent application documents. DOCX, a word processing file format that includes XML, aims to directly receive text-based applications that will dramatically increase automation throughout processing at the USPTO. A beta-testing group was created to use the smart text XML submissions process, and the USPTO received critical feedback, which has led to the continued evaluation and enhancement of the system. The previously unsupported authentication system has been permanently turned off. Additionally, in FY 2021, the USPTO continued to build on the successful opening of Patent Center beta to all public users by providing training on the tool and DOCX filing. To date, the USPTO has trained over 11,000 users. The USPTO also continued to add new functions in Patent Center, including the ability to file drawings in DOCX and Hague International Design applications and third-party submissions.

REENGAGING TRADEMARK PRODUCT LINE MODERNIZATION

As noted under Goal 2, Objective 3, during FY 2020, the USPTO experienced many challenges that had significant impacts on Trademarks IT modernization efforts. The USPTO mitigated the negative effects of the pandemic on its operations, such as declines in revenue, by scaling back funding in FY 2020 for its IT modernization solution for Trademarks and pausing certain efforts to integrate AI and ML into IT solutions. Primary IT efforts during this period focused on the stabilization of existing IT systems. Despite limited progress toward modern IT solutions, the Trademark Product Line continued to engage in the ongoing

enterprise-wide business transformation efforts to identify resources and redefine roles and processes for IT prioritization, planning, and decision-making per the NWOW for IT delivery.

During FY 2021, the USPTO continued to maintain, stabilize, and enhance existing trademark systems, and as of May 2021, all trademark systems completed their stabilization efforts. As part of ongoing prioritization efforts, the USPTO continues to identify and assess challenges, and ensure systems and databases do not reach the end of their useful lives. While stabilizing systems, the USPTO also developed new features and enhancements to support critical initiatives such as the TMA, the large trademark filing surge, and TEAS Login ID proofing.

ENHANCE OPEN DATA

Open data is publicly available data that is structured in a way to enable it to be fully discoverable and usable by end users. It can be freely used, reused, and redistributed by anyone. It is an important national resource serving as fuel for innovation, scientific discovery, and commercial activity. It is central to an efficient, transparent, and collaborative democracy. The USPTO generates a vast amount of patent, trademark, and policy-related data each day. This data is a treasure trove of innovation used by independent inventors, businesses ranging from startups to large corporations, law firms, strategic patent analytics companies, academia, government agencies, foreign IP offices, and the public at large. The USPTO's continued investment in enhancing its open data efforts is key to promoting equitable opportunities in innovation.

In FY 2021, the USPTO's Open Data Initiative, which provides publicly available data, enabled cutting-edge research in the AI community. The "Pile Dataset" was released by EleutherAI, a consortium of AI researchers from top academic and industry labs. Scientists and engineers created this new database by using high-quality, curated material from numerous diverse and reputable sources, including the USPTO. The agency believes the Pile Dataset and the resulting models are a first step in realizing the long-term utility of patent data for AI research, and there are many other promising applications that are just beginning to be realized.

In addition to continued efforts to develop new datasets and Application Program Interface services through its **Developer Hub** or Open Data Portal, the USPTO began a new effort supporting the IT infrastructure of the **Patent Examination Data System** (PEDS) to keep pace with emerging business needs, security, and technology standards. This initiative involved the deployment of a new cloud-based repository of the image file wrapper and metadata for nearly 10 million applications previously accessible in Public PAIR. A file wrapper is the electronic file record in which the USPTO maintains the application papers constituting the official record of the application.

These images became accessible through a new "tab" in PEDS along with additional data. The USPTO is currently working on making these images and other data available to users through its APIs and other bulk download services in the near future.

The USPTO continues to be a global leader in the dissemination of open data and remains committed to disseminating open data and sharing the successes of inventors across the nation and worldwide.

IMPROVE MODERN ANALYTICS INFRASTRUCTURE

The USPTO's investment in a modern analytics infrastructure has been instrumental in spurring AI solutions and supporting USPTO data-driven strategic goals related to optimizing both patent and trademark quality through analytical studies and data services. The Foundations for Evidence-Based Policymaking Act (or OPEN Government Data Act, Pub. L. 115-435) is a United States law that requires the federal government to modernize its data management practices. The USPTO continued its strategic effort to improve processes and tools to securely capture, collect, store, and manage authoritative data as an enterprise asset as part of its transition to a product-based IT delivery model.

FY 2021 efforts were two-pronged, involving both IT and non-IT initiatives. On the IT side, a multiyear effort began to migrate the USPTO centralized analytical platform to support a multicloud, hybrid infrastructure; consolidate data analytics components; and implement data cataloging and model management technologies. Once completed, this IT effort will provide:

- On-demand flexibility for business units across the USPTO (enterprise) to stand up business project-specific and event-based analytical data stores, algorithms or model management, ML or AI, RPA, and business intelligence reporting
- Centralized enterprise management of role authentication, access controls, data governance, and provisioning throughout the USPTO's data analytics ecosystem
- Accurate, timely, and readily accessible algorithms or models, analytic data stores, and reporting or visualization for authorized internal and external stakeholders that reduce replication of data, models, algorithms, etc.

Non-IT initiatives focused on organizational cultural changes to support shared data management and governance practices.

Maturing the integrations to eliminate collections of data held by one group that are not easily or fully accessible by other groups (i.e., data silos) will result in cost savings from reduced development duplications and time spent hunting for and preparing data to be used in analyses. It will also fuel innovation, as much of the USPTO's open data and AI efforts have sprung from and are fed by the data provided through the agency's centralized analytical platform.

ADVANCED ANALYTICS AI/ML

Over the past year, the USPTO has continued to develop and deploy AI/ML tools across multiple initiatives recently highlighted in the <u>USPTO Director's Blog</u>. The use of the technologies in patent and trademark operations continues to improve the USPTO's effectiveness in providing customers with timely and high-quality products and services.

Modernizing operations by operationalizing ML and AI technologies requires a strong partnership between OCIO and its internal customers. This is reflected in the agency shift to a product-based model as well the establishment of the strategic IT themes of integrating advanced analytics, AI, ML, and automation to improve processing, increase the quality and efficiency of operations, and improve decision-making. Teams in the OCIO are working to develop, deliver, and manage the tools.

In FY 2021, the USPTO was recognized for its AI and ML tools, receiving a "FutureEdge50" award for applying emerging technologies at the agency. The USPTO was the only federal agency in this award category.

DEVELOP ROBOTIC PROCESS AUTOMATION

RPA automates tedious tasks that were previously done manually. RPA bots (i.e., robots) perform keyboard and mouse events many times faster and more accurately than humans. The OCIO established an enterprise capability to support RPA in August 2019. This capability provides for federated development, allowing each USPTO business unit the flexibility to build RPA bots at a pace that meets their individual business needs. Federated development also allows interoperability and information sharing among USPTO business units.

To prepare for implementing RPA, the OCIO also established a Center of Excellence (CoE) for RPA, which communicates RPA information and practices across the USPTO and participates in the Federal RPA Community of Practice and the Commerce Department RPA Community of Practice to gain cross-government knowledge and insights. The RPA infrastructure and licensing are centralized to promote standardization, technology congruence, governance, software reuse, and bulk purchasing agreements for software licensing. The CoE established guidelines for RPA to standardize repeatable processes and feed automated test and deployment pipelines, which would speed up processing and reduce operational costs. Further, these guidelines promote agile and DevSecOps that align with the NWOW product catalog and supporting tools.

The RPA teams have deployed 13 bots to date, supporting multiple USPTO business units. Three of the deployed bots extract data from voluminous databases and enter into management reports, such as lists of the cybersecurity status of systems, which saves 108 hours per year. Six bots perform repetitive functions, such as daily updates to currency exchange rates for the USPTO financial systems, which saves 256 hours per year. The agency recently started to apply RPA to the Trademarks business unit and has so far deployed four bots that perform routine data entry into the File to Note application and remove or re-suspend Trademarks based on filing status, saving 3,081 hours per year. The number of RPA bots is forecast to increase across USPTO business units as savings examples accrue and individual business units accelerate their adoption rates.

IMPROVE ENTERPRISE INFRASTRUCTURE

The OCIO continues to provide a modern and secure working environment for USPTO end users and internal and external stakeholders to perform their daily tasks. Each product within the EIPL has contributed to improvements in the USPTO's enterprise infrastructure, and many have led to cost avoidance or cost savings.

The OCIO continued to increase the USPTO's overall IT security posture through concentrated efforts by product teams to reduce the number of delayed POA&Ms related to eliminating security concerns from 297 down to 263. These efforts will ultimately improve product security. The Security and Compliance Services product teams completed documentation of a System Owner guide and new System Owner and Information System Security Officer designations to inform and assign risk management framework roles and responsibilities. Additionally, to ensure customer awareness of security implications and potential phishing attacks, a warning banner was added to all emails received from outside of the USPTO, enabling users to more easily recognize external emails, from which the vast majority of phishing attacks occur.

The collective Infra/Hosting Services products focused on improvements to increase overall resiliency and redundancy and maximize computer power while achieving cost efficiencies.

- The Cloud product teams moved the USPTO forward in its hybrid cloud strategy and contributed to Key Performance Indicator target achievements associated with deploying products to the cloud. The teams also established additional enterprise services in the public cloud and with public cloud providers that are compliant with the Federal Risk and Authorization Management Program (FedRAMP). Additionally, this product optimized monthly cloud costs by reducing 35% of the USPTO AWS (Amazon Web Services), Cloud Services.
- The Data Center product teams completed the relocation of the USPTO's
 Alternate Processing Data Center from Boyers, Pennsylvania, to Manassas,
 Virginia. They also completed acquisition packages for the on-premise Data
 Center Relocation follow-on contract and "seed" equipment necessary to
 facilitate the relocation from Alexandria, Virginia, to Manassas.
- The Compute product teams automated ticket creation for decommissioning old, end-of-life servers, significantly reducing the effort necessary for creating and tracking server decommission activities. Additionally, the teams have focused on maximizing compute power through the most expeditious means and successfully empowering product teams to effectively reduce technical debt and ensure components are functioning with up-to-date and vendor-supported hardware and software. Technical debt (also known as tech debt or code debt) describes what results when development teams take actions to expedite the delivery of a piece of functionality or a project that later needs to be refactored. In other words, it is the result of prioritizing speedy delivery over perfect code.
- The Network product teams successfully migrated the USPTO's lab and production internet traffic from CenturyLink to more effective NOAA (National Oceanic and Atmospheric Administration) N-Wave circuits. Additionally, the Network teams established additional FedRAMP-compliant public cloud services through Network N-Wave cloud connection changes for AWS and Google. These changes moved the USPTO closer to the full target for enabling hybrid cloud migration with the N-Wave Network.
- Storage product teams reduced 567 terabytes of storage in the second quarter of FY 2021 through effective storage reclamation activities, resulting in an annual cost avoidance of \$755,300. Additionally, the backup client migration efforts resulted in an estimated \$2.6 million in cost avoidance for NetBackup Front End Terabytes (FETB) capacity licensing.
- Platform product teams focused on increasing efficiency and cost savings
 through migrations from proprietary software to open-source application
 server software, resulting in a projected \$600,000 reduction in operation
 license costs. Additionally, these teams successfully achieved stabilization
 objectives for USPTO custom applications and components, including
 several legacy Patents and Trademarks systems, which will contribute to
 the overall reduction of vulnerabilities caused by production outages and
 stabilize the underlying IT infrastructure environments.

- Delivery Services product teams focused on providing improvements across a range of services. As part of this effort, the OCIO established the Agile Delivery Platform to increase DevSecOps velocity toward deployments and ease secure cloud adoption through automated testing and configuration management. The platform also facilitates code sharing and reuse across all product teams, which increases the speed of product team deployment by delivering customer-specific features, accelerating the onboarding of components, and finalizing design plans to support AWS cloud pipelines. In support of this work, the Identity-as-a-Service Team successfully received a conditional security authority to operate, further enabling delivery of a cloud-based identity management provider, Okta, to replace Oracle's identity management solution known as Role Based Access Control by August 2022. This replacement will result in a cost savings of approximately \$3.6 million in FY 2023 and will enable consistent security controls with enhanced application features in approved environments.
- End-User Support product teams collectively worked together to provide enhanced customer value to accomplish agency missions and goals. The Account Services team proactively replaced alternate two-factor authentication (2FA) "FOBs" prior to their expiration for customers who were not able to update their primary 2FA badge certificate due to COVID-19 onsite restrictions. The Software Management team completed the Software License Asset Management client deployment to workstations and servers as well as training to several product teams, which ultimately resulted in reduced software costs and compliance with the congressional MEGABYTE Act of 2016. "Team Stream" successfully hosted a virtual fireside chat with Secretary of Commerce Gina Raimondo, with over 5,000 participants. The Collaboration Services team partnered with the software Baselines and Packaging team for the enterprise desktop client deployment of Microsoft Teams ahead of the retirement of Skype for Business and ensured that the agency has a reliable instant messaging tool to continue (and expand) NWOW collaboration. The USPTO Contact Center team conducted a comprehensive analysis of the Solutions' Database to determine which documented solutions are still relevant and which require revisions or should be marked as obsolete to ensure all USPTO contact centers provide timely and accurate responses to public customer inquiries.
- Emerging Technology and Innovation product teams provided exploratory support for key efforts related to the advancement of IT services needed to meet agency objectives. Several prototypes and proofs of concept have made progress, including the use of blockchain to allow the USPTO to issue electronic copies of trademark registration certificates, resulting in higher public satisfaction and lower costs to the USPTO. The Chatbot prototype will allow the USPTO contact centers to intelligently e-answer basic queries from the public around the clock at a significantly lower cost. Additionally, an elastic search-based solution could potentially replace two trademark search solutions that will allow the retirement of old, unsupported technologies. The teams evaluated six technical solutions to enable the uploading and processing (e.g., malware check) of very large files (e.g., bio-sequence data files). When adopted, these will allow the USPTO to more reliably and securely accept larger file attachments from the public. Of particular interest is the initial work related to the Secure Access Service Edge, which will further improve the USPTO's cybersecurity posture and directly address EO 14028.

IT Management Services product teams provided business management and architectural support for the OCIO. The Chief Architect team delivered the first archetype for complete pipeline delivery to AWS to increase development productivity through reuse. The successful use of this template will result in efficiencies and cost savings through that reuse and will create a network architecture aligned with the mandated, zerotrust security model architecture to further improve the USPTO's security posture, comply with EO 14028, and modernize security. The Enterprise Architecture Services team completed phase one of a configuration management database with full synchronization in the Global Enterprise Architecture Repository System to provide a single source of dependencies and integrations for assets. The completion of phase one further improved IT planning and decision-making. The IT Financial Management team worked closely with teams from the Office of Financial Management Systems to define, deliver, and implement IT formulation capability within the Enterprise Budget Tool, allowing OCIO to retire in-house budget formulation tools. Additionally, the Workforce Management team delivered IT training in key areas—the cloud, security, analytics, and architecture—thereby developing OCIO employees' IT technical skills and knowledge to leverage security, cloud, and emerging technologies.

OBJECTIVE 3: ENSURE FINANCIAL SUSTAINABILITY TO FACILITATE EFFECTIVE USPTO OPERATIONS

The USPTO does not receive general taxpayer funding. Instead, the agency's operations depend on fees that are paid by customers in exchange for the USPTO's IP products and services. While the USPTO's fee schedule takes into account the cost of delivering each individual service, as a government agency with responsibility to the broader American public, individual fee rates also incorporate key public policy objectives (e.g., many patent fees are discounted for small businesses and "microentities," like the inventor who works out of their garage). Further, sometimes payments are received in different fiscal years from when services are delivered. To strike the right balance between fee income, costs, organizational risks, and policy benefits over multiple years, the USPTO uses sophisticated planning and budgeting models. The agency also maintains operating reserves to ensure that it has sufficient resources to mitigate the risk of uncertain demand and enable financial stability to consistently finance agency operations, even as day-to-day fee collections fluctuate or major economic or fiscal events affect the agency's cash flow.

The operating reserves proved critical in the early months of FY 2021. Fee adjustments first proposed in August 2018 were published on August 3, 2020, in the Final Rule on Setting and Adjusting Patent Fees During Fiscal Year 2020. These adjustments went into effect on October 2, 2020. A considerable share of customers elected to pay certain fees (namely patent maintenance fees) ahead of the fee increase, leading to a spike in fee collections at the end of FY 2020 that would have otherwise been collected in the first few months of FY 2021. This caused the USPTO's FY 2020 revenue to exceed the level that had been appropriated for spending by Congress by \$232 million. While the USPTO was ultimately able to have these funds restored through a reprogramming action (approved by Congress on March 1, 2021), the agency relied heavily on its patent operating reserves to maintain a substantially normal operating tempo throughout the first five months of the fiscal year.

Also crucial for the agency's financial health was the finalization and publication of a Final Rule adjusting trademark fees, which was published on November 17, 2020, and became effective on January 2, 2021. These changes, first proposed in August 2019, were conceived to allow the USPTO to continue financing the full cost of its trademark business, as well as to protect the integrity of the Trademark Register and improve the efficiency of agency processes. The need for the fee change was heightened by the unpredictability introduced by the COVID-19 pandemic, which resulted in a sharp drop in trademark revenue throughout the third quarter of FY 2020, followed by an unprecedented filing surge that continued through much of FY 2021. The additional revenue generated by the fee change has enabled the USPTO to initiate actions to begin aggressively responding to the rapidly rising trademark application backlog. In addition to looking at every step of the examination process to find ways to increase efficiency, the agency is adding examining attorneys, support staff, and contractor support and implementing IT solutions and system enhancements to process applications faster and more effectively.

This year, the USPTO continued reviewing the patent and trademark fee schedules to ensure the new fees meet the current and future needs of the IP environment. It has been determined that certain adjustments to the patent and trademark fee structures may be necessary to preserve an optimal balance of customer, public, and USPTO financing needs. If necessary, preliminary fee change proposals are anticipated to be introduced in FY 2022, with multiple opportunities for public dialogue and input.

The USPTO also continued to improve its cost-effectiveness. One area where the agency is methodically evaluating its efficiency and cost-effectiveness is in IT delivery. In FY 2021, the agency benchmarked the USPTO's IT spending against other industries and used the information to guide IT and acquisition planning. The analysis identified areas in which the USPTO should target future savings as it works towards its long-term IT goals for increasing resiliency, improving cybersecurity, and moving to the cloud.

The USPTO is also working to generate greater value for the money spent is by looking at how the agency manages resources through acquisition services. The most notable achievement in this area in FY 2021 was the re-competition of the USPTO's largest patent processing contract. This contract had been held by a single incumbent for more than four decades. Over the course of several years, the USPTO's acquisition team devised and carefully executed a strategy that enabled the agency to transition from a high-risk, sole-source contract to a competitive, multi-vendor environment. The new contracts, awarded in June to two firms, include service and cost incentives and are expected to save the USPTO at least \$150 million over the next 10 years. Beyond financial savings, the new contracts facilitate contingency planning for this mission-critical function, increase physical and cybersecurity requirements, and include subcontracting plans that support small businesses and incorporate backup locations that improve the agency's continuity of operations posture and climate resiliency.

OBJECTIVE 4: ENHANCE THE USPTO'S INTERACTIONS WITH INTERNAL AND EXTERNAL STAKEHOLDERS AND THE PUBLIC AT LARGE

To maximize the nation's potential, all Americans must be able to innovate, seek patent protection for their inventions, and reap the rewards from innovation through entrepreneurship and commercialization. In addition, these opportunities must be afforded to groups that have historically been underrepresented in the IP system (e.g., based on demographic characteristics, geography, or economic conditions). For more information on the USPTO's efforts to broaden the IP ecosystem, please visit the **Expanding Innovation** section of our website.

LAUNCH NATIONAL COUNCIL FOR EXPANDING AMERICAN INNOVATION8

In FY 2020, the USPTO launched a major initiative aimed at expanding invention, innovation, and entrepreneurship in the United States by forming the NCEAI. In October 2021, Secretary Raimondo announced that she will serve as the new Chair. In her first act as Chair the Secretary renamed the NCEAI the Council for Inclusive Innovation, or Cl². The Cl² is composed of high-level leaders from the federal government, industry, academia, and professional and nonprofit organizations, as well as venture capitalists and independent inventors, who are committed to increasing the opportunities for all Americans to participate in innovation. A top priority of the Cl² is to help the USPTO develop a long-term, comprehensive national strategy to build a more diverse and inclusive innovation ecosystem by encouraging participation demographically, geographically, and economically. The Cl² will strategize about how to devise an approach that spurs interest in innovation and inventing and provides for increased access to the innovation ecosystem. By encouraging, empowering, and supporting all future innovators, the Cl² will be an important catalyst for increasing opportunity and fueling the U.S. innovation economy. The USPTO will continually document progress in these areas through updates such as our "Progress and Potential" report on women inventor-patentees.

The NCEAI (re-branded Cl²) began a series of Innovation Chat webinars to further the discussion on how to increase opportunities for all Americans to participate in innovation. There have already been chats on the importance of expanding American innovation in an inclusive IP system and on creating innovators.

For more information, please visit the CI² section of our website.

CONTINUE LAW SCHOOL CLINIC CERTIFICATION PROGRAM

In FY 2021, the USPTO Law School Clinic Certification Program continued to help underrepresented entities obtain pro bono IP legal services. Under the supervision of an approved faculty clinic supervisor, law students provide pro bono representation to individuals and small businesses throughout the country in the prosecution of patent and trademark applications before the USPTO. At present, 60 law school clinics participate in the program. Applications to admit additional law schools into the program will be accepted through December 31, 2022.

Between July 2020 and June 2021, participating law schools reported filing 151 patent applications and 754 trademark applications on behalf of their clients. The USPTO projects that the number of future application filings will equal or surpass the number of filings in prior years. During this same period, participating law

⁸ NCEAI was re-branded in October 2021 to Council for Inclusive Innovation CI².

schools succeeded in obtaining 65 patent grants and 379 trademark registrations on behalf of their clients and filed responses in over 287 patent matters and over 692 trademark matters. In total, participating law school clinics undertook the representation of approximately 2,168 clients during this period.

EXPAND PATENT PRO BONO PROGRAM

In FY 2021, the USPTO also continued to support the Patent Pro Bono Program, a nationwide network of 21 independently operated, not-for-profit, regional programs that match volunteer patent practitioners with qualified, financially underrepresented inventors and small businesses to provide pro bono patent application preparation, filing, and prosecution services. The program helped underrepresented inventors and small businesses file 202 patent applications, fielded 1,920 inquiries, and matched 404 underrepresented inventors and small businesses with volunteer patent practitioners. Over 1,800 registered patent practitioners are currently available to participate in regional programs. The USPTO recognized over 100 practitioners who donated at least 50 hours of service in calendar year 2020 to the not-for-profit, regional programs. The USPTO also recognized 28 law firms for their contributions to the program.

In FY 2021, the Patent Pro Bono Program conducted outreach to over 80 IP law associations. The program also transitioned to virtual presentations and presented to the American Intellectual Property Association, Invention-Con 2021, IP organizations across the United States, and inventor groups.

IMPLEMENT UPDATES MADE TO THE GENERAL REQUIREMENTS BULLETIN FOR ADMISSION TO THE PATENT REGISTRATION EXAM

On March 23, 2021, the USPTO published a Federal Register Notice requesting public input on Administrative Updates to the General Requirements Bulletin (GRB) for Admission to the Examination for Registration to Practice in Patent Cases Before the United States Patent and Trademark Office (86 FR 15467). This notice requested comments on changing the scientific and technical criteria for admission to the registration examination.

Three categories of technical and scientific qualifications remain that may make applicants eligible to sit for the registration examination: Category A for specified bachelor's degrees, Category B for other bachelor's degrees with technical and scientific training, and Category C for practical engineering or scientific experience. If an applicant does not qualify under any of the categories set forth in the GRB, the USPTO will conduct an independent review for compliance with the scientific and technical training requirement set forth in CFR § 11.7(a)(2)(ii). Based on the comments received and the USPTO's ongoing evaluation of the criteria, the agency changed the criteria within the categories to add common Category B degrees to Category A; accept advanced degrees (i.e., master's and Ph.D. degrees) under Category A; and accept a combination of core sciences under Category B, Options 2 and 4, so long as one of the core science courses has a lab component.

CHANGES TO REPRESENTATION OF OTHERS BEFORE THE USPTO

In 2021, the USPTO published a final rule with respect to 37 CFR part 11, Representation of Others before the United States Patent and Trademark Office. This rulemaking aligns the USPTO Rules of Professional Conduct more closely with recent revisions to the American Bar Association Model Rules of Professional Conduct; makes compliance with part 11 easier by revising various deadlines and procedures related to the registration exam, reinstatement, and limited recognition; and makes non-substantive changes to improve the comprehensibility of various provisions. The

USPTO also published a final rule eliminating the requirement for original, handwritten signatures in correspondence related to registration to practice before the agency in patent cases, enrollment and disciplinary investigations, and disciplinary proceedings as well as for payments by credit card where the payment is not made via the USPTO's electronic filing systems.

PATENT AND TRADEMARK RESOURCE CENTERS

The Patent and Trademark Resource Centers (PTRCs) are a nationwide network of public, state, and academic libraries designated by the USPTO to disseminate patent and trademark information and support the public's diverse IP needs. The PTRC library staff are information experts trained on how to use search tools to access patent and trademark information. The 83 PTRCs directly assist entrepreneurs and small business owners by:

- Aiding them in identifying relevant USPTO resources.
- Aiding them in using the USPTO's Patent and Trademark search tools and related resources.
- Referring them to relevant offices at the USPTO for additional assistance.
- Referring them to relevant community and area resources.

Each of the PTRCs is located within a library supported by either a state government, a municipal government, or a university. The USPTO collaborates with these government and university libraries by providing comprehensive training and other support to the staff, whereas the governments and universities collaborate by allocating resources, including staff; physical space for consultations with entrepreneurs; and access to collections, public meeting space, and other resources. The PTRCs have experienced closures and reduced walk-in services since the beginning of the pandemic. Reduced walk-in services persist at some institutions, and many PTRCs continue to offer customer assistance using video conferencing platforms.

The USPTO tracks two metrics for the PTRCs: the number of individuals assisted and the number of attendees at classes. In FY 2021, the PTRCs assisted 6,787 individuals and had 7,991 class attendees.

INVENTORS ASSISTANCE CENTER

The Inventors Assistance Center (IAC) provides patent information and services to the public, including entrepreneurs and small businesses. The IAC is staffed by former USPTO officials (e.g., patent examiners, supervisory patent examiners), who answer general questions concerning patent examining policy and procedure.

Specifically, the IAC answers questions concerning the necessary format and formal requirements for a patent application; provides assistance with the proper completion of patent application forms; provides general information concerning patent examining rules, procedures, and fees; and directs callers to appropriate USPTO personnel or resources, as necessary. The Inventors Assistance Center (IAC) receives approximately 26,381 calls per year.

TRADEMARK ASSISTANCE CENTER

The TAC is the main support center for all trademark customers, from first-time filers to legal professionals and experienced trademark applicants. It serves as the primary touchpoint for entrepreneurs and small businesses across the country to obtain information and assistance regarding the trademark application, registration, and maintenance process. The TAC serves as an educational resource for those who desire brand protection.

During FY 2021, the TAC assisted over 149,000 customers, of which 69%, or approximately 102,810, were entrepreneurs and small business owners. The TAC answered 116,088 telephone calls and responded to 33,137 emails.

The TAC is measured by three key performance goals. The staff aims to:

- Answer 85% of telephone calls within 20 seconds of entering the TAC queue
- Score a 97% call handle rate
- Achieve an 86% customer satisfaction survey score

In addition to assisting customers through telephone and email channels, the TAC also facilitated "Lunch and Learn" webinars. In FY 2021, a total of 434 entrepreneurs and small business owners attended these webinars. The "Lunch and Learn" webinar program ended in January 2021.

More generally, the USPTO engages with small businesses around the country with information about trademark basics and tools for protecting and enforcing trademark rights. These educational programs and materials target groups generally not acquainted with trademark information, such as non-trademark attorneys, the small business community, the entrepreneurial community, and students.

The USPTO's outreach strategy also includes relationships with colleges and universities, entrepreneurship clubs, and similar groups to present lectures and presentations on trademarks and the importance of a strong mark that is federally registrable and legally protectable.

ENHANCED EDUCATION AND OUTREACH EFFORTS IN SUPPORT OF SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS

Ensuring that the innovators, inventors, and entrepreneurs of the future receive a STEM-based education and consistent exposure to STEM activity is critical to our country's economic prosperity. STEM students will one day apply to the USPTO for IP protection, or they may well become part of the agency's future workforce. The USPTO fully supports government-wide STEM efforts through both its longstanding national outreach partnerships, including with the nonprofit National Inventors Hall of Fame (NIHF), founded in 1973, and its own Office of Education (OE) and Office of Innovation Outreach (OIO). After implementing lessons learned over the past year about conducting virtual activities and programming, the OE, the OIO, and the USPTO's partners were better able to connect young people and independent inventors to STEM and IP concepts and USPTO and other federal resources to encourage and support invention and innovation.

Camp Invention, NIHF's flagship summer enrichment program for children in grades K-6, provides STEM enrichment to approximately 150,000 young people across the country, along with age-appropriate introductions to the USPTO's workings and the value of IP, through partnerships with local teachers. Given the success of its at-home virtual kits developed in mere weeks during spring 2020, NIHF expanded its offerings to include virtual and hybrid teacher-led camps for 2021.

By midsummer, registrations across all of NIHF's education programs (prekindergarten to high school) were almost back at pre-pandemic levels, with 180,000 students around the country registered and more than 20,000 teachers participating. A record 101,000 students received scholarships to participate, paid for by school districts or private donors. The students receiving scholarships were identified by their schools as those who would not have otherwise been able to participate, thereby expanding the reach of this important invention education curriculum.

The Collegiate Inventors Competition, another joint effort by the USPTO and NIHF, is an invention competition among the country's colleges and universities. It connects inventive spirit with entrepreneurship, encouraging students to see the value of their ideas to society and to continue to develop their inventions, patent their work, seek investors, start businesses, and contribute to new economies. Entries to the competition represent disciplines as varied as medical devices, biotechnology, nanotechnology, renewable energy, robotics, and systems engineering. Finalists are determined through two tiers of judging by experts in the applicant's field of invention or research, by NIHF inductees, and by examiners and officials from the USPTO.

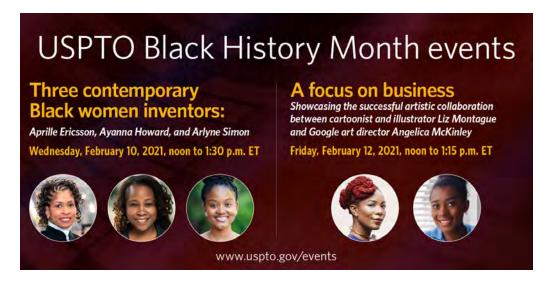
Winners in both the undergraduate and graduate categories receive cash prizes from NIHF. A large number of Collegiate Inventors Competition finalists have gone on to start their own businesses, license their technology through university technology transfer, and continue their research at the graduate and postdoctoral levels.

Another partner of the agency, the National Academy of Inventors (NAI), is a network of 250 research organizations and 4,000 academic inventors. The USPTO has been an ongoing supporter of NAI's annual meeting and induction as well as its programming to support inventive activity in the academic world. In addition, the USPTO submits content and articles to NAI's quarterly journal, "Technology & Innovation," that discuss the importance of academic invention from the agency's perspective.

Complementing these efforts, the OE develops resources that can be distributed to K-12 educators, classrooms, and other learning environments; provides professional development and training for teachers in invention education, innovation, and IP; and supports educators, administrators, researchers, investigators, and others in developing standards and policies for invention education. The OE team engages stakeholders to integrate invention education, innovation, and IP into K-20 schools and learning environments nationally.

The OE's flagship annual five-day professional development program, the National Summer Teacher Institute, returned in 2021 in a virtual form. This program is designed to provide an introductory yet deep dive into IP protection concepts, innovation, entrepreneurship, and STEM to K-12 educators. The material aims to help teachers unleash their students' innovative potential in their own classrooms by encouraging them to think and act creatively.

The OIO, meanwhile, conducted numerous programs throughout FY 2021 to support and enable independent inventors, entrepreneurs, and small businesses. These efforts included hosting frequent online programs throughout the year in coordination with heritage and history months, inviting the public to hear stories and strategies from Black inventors or business owners during Black History Month, for example, or LGBTQ+ inventors or business owners during Pride Month.



The annual Women's Entrepreneurship Symposium, developed each year by the OIO, took on a new twist this year. Rather than offering an all-day program, the OIO hosted five shorter programs, one each Wednesday in March (Women's History Month). All were designed with an emphasis on helping women learn about navigating today's changing marketplace; explore ongoing efforts to bring them into the innovation ecosystem; and discover educational opportunities for them and for girls interested in computer science, invention, and STEM.



The OIO also develops and presents Invention-Con, the USPTO's flagship program for independent inventors and entrepreneurs, in August each year. Invention-Con 2021 was a virtual event offering discussions about how different types of IP are critical to business strategy. Keynote speakers for this year's program included Serene Almomen, Chief Executive Officer of Senseware, and recording artist Ansel Brown, who shared their insights on science, technological innovation, music, and business. Attendees heard from many key USPTO staff, as well as remarks from U.S. Secretary of Commerce Gina Raimondo. Something new this year was the focus on young and student inventors on the first day of the conference. That day's agenda featured Gitanjali Rao, inventor and "TIME" magazine's 2020 Kid of the Year, and other young innovators who shared their experiences and insights.



Gitanjali Rao, young inventor and TIME's 2020 Kid of the Year, receives a framed copy of her patent from Molly Kocialski, director of the USPTO's Rocky Mountain Regional Office.

CREATE STRATEGIC PARTNERSHIP AND COLLABORATION THROUGH THE REGIONAL OFFICES

The USPTO's regional offices and the Eastern Regional Outreach Office, housed at USPTO headquarters, support, facilitate, coordinate, and lead high-level engagements with community IP leaders and government officials at the local, state, and federal levels across the country. Each regional office communicates and carries out the USPTO mission, strategic plan, and goals by providing resources, information, programs, and services that benefit and encourage the growth of our innovation-based economy.

The USPTO is committed to creating strategic partnerships focused on the continuing education of its stakeholders, including IP professionals, who rely on the USPTO's regional offices to assist them in remaining current on emerging IP issues. These issues that affect not only their businesses but also the economy as a whole. The partnerships focus on communicating and advancing IP policies; delivering IP education across all levels of knowledge, from first-time inventors to skilled patent practitioners; and getting K-12 students excited about STEM careers. Through these efforts, the regional outreach teams help broaden the innovation ecosystem—geographically, demographically, and economically—by providing more individuals with the knowledge and tools to innovate and to protect their inventions.

The regional outreach teams trained and judged law students competing in the USPTO National Patent Application Drafting Competition, and they trained new patent attorneys and patent agents litigating before the PTAB through the Legal Experience and Advancement Program (LEAP).

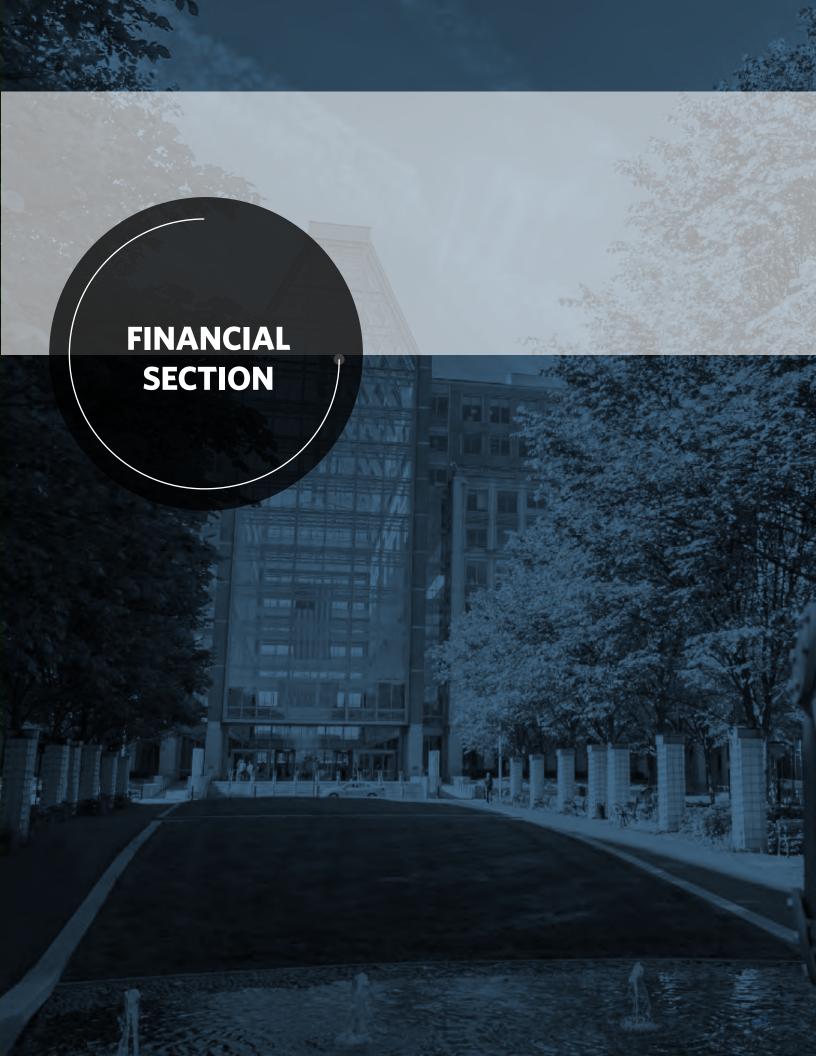
The regional outreach teams communicate policy through active engagement with stakeholders across the country. They function as liaisons for policy matters by participating in events and meetings organized by the PTAB Bar Association, the National Association of Patent Practitioners, the AIPLA, the Federal Circuit Bar Association, and state bar associations. In addition, all regional office teams host policy-related events throughout the year—for example, China IP Road Shows, anti-counterfeiting seminars, STOPFakes programs, and USPTO Design Day—that bring together a broad range of diverse attendees, including patent prosecutors, litigators, inventors, academics, and patent examiners, for public discussion on aspects of IP law. These events highlight the USPTO's commitment to strengthening the public's understanding of IP, including their knowledge of how IP, and the products and services the USPTO offers, support our innovation-based economy.

The regional outreach teams also facilitated IP discussions to serve industry-specific and other government stakeholders, including the 75th anniversary celebration of the Lanham Act hosted by the Texas Regional Office in collaboration with the State Bar of Texas. The Silicon Valley Regional Office hosted a cybersecurity summit featuring small and midsize companies across the country that are focused on meeting the federal government's rapidly evolving cybersecurity needs. The Midwest Regional Office hosted an industry roundtable, including automobile manufacturers, car-share companies, and suppliers, to identify IP issues in autonomous vehicle technologies.

The Rocky Mountain Regional Office, in collaboration with the IP Attaché Program, hosted a set of virtual meetings with government, university, and corporate stakeholders in collaboration with the IP Attaché Program in North Dakota and South Dakota. The Eastern Regional Outreach Office launched the Did You Know @ USPTO series, highlighting the USPTO's IP resources freely available for the public. These engagements and others, such as the USPTO's participation in regionally located national events like the Consumer Electronics Show and South by Southwest, provide IP stakeholders with a forum to discuss and share their perspectives on the IP ecosystem.

In FY 2021, all regional office programming remained virtual. This allowed for expanded multi-regional programs reaching more IP stakeholders. For example, the Texas Regional Office and the TTAB hosted a live oral hearing and arguments during the 75th anniversary celebration of the Lanham Act. Also, in support of the agency priority of expanding access to the innovation ecosystem, each of the regional office directors and the Eastern Regional Outreach Director collaborated with a number of large patent filers to host a series of roundtables exploring the role of the invention harvesting processes in identifying innovators and future patent applicants in companies.

In FY 2021, the USPTO regional office directors and the Eastern Regional Outreach Director met with and listened to USPTO stakeholders and customers directly through a series of one-on-one meetings. Since October 1, 2020, the USPTO has conducted over 550 of these meetings, gaining a better understanding of stakeholder experiences with the U.S. IP system and how the USPTO can provide high-quality customer service. In addition, these meetings garnered valuable feedback as to how the USPTO can support a more reliable and predictable legal framework for incentivizing and protecting innovation while also providing targeted USPTO programs and initiatives.



MESSAGE FROM THE CHIEF FINANCIAL OFFICER



Jay Hoffman

As another fiscal year ends, it is good to reflect on our challenges and achievements. One of our more significant achievements during FY 2021 was successfully implementing corrective actions to resolve the FY 2020 significant deficiency over IT general controls. Since FY 2015, the audit report has contained a significant deficiency related to various general controls surrounding IT. The security of USPTO's financial information and IT infrastructure is extremely important to the USPTO. We have dedicated resources for several years to improve the implementation of our IT general controls and I am pleased to report that with its 29th consecutive unmodified opinion on the financial statements, the independent auditor reported no material weaknesses or significant deficiencies in the design and operation of the USPTO's system of internal controls over financial reporting, and the financial system complies with financial system requirements in the FFMIA and OMB Circular A-123, Appendix D.

With the contours of the economic climate uncertain at the outset of the pandemic and throughout FY 2021, the USPTO continued to carefully monitor demand and revenue and established a conservative spending plan. These decisions to mitigate financing risks paid off. The demand for our services largely stabilized during FY 2021, although we continue to be mindful of economic uncertainties. We planned for a negative growth in patent application filings, yet actual demand was almost the same as last year, slightly outperforming our expectations. The demand for trademarks reached a record high recently and began to settle into a more consistent pattern during the second half of FY 2021.

Overall, our financial health is good. The operating reserves mitigated the pandemic and economic risk of uncertain demand and enabled the USPTO to consistently fund operations. The GAO's recognition of operating reserves as a best practice for feefunded agencies and the financial volatility over the past two years reaffirmed that the USPTO must consider funding operating reserves to optimal levels a budgetary requirement. The USPTO closed FY 2021 with balances for patent and trademark operating reserves above minimum levels, and our trademark operating reserve is approaching its optimal level.

As an agency that relies only on fee collections to fund daily operations, we frequently review and analyze operational and global economic data to assess whether we need to adjust the patent and trademark fee schedules. The fee schedules are designed to achieve the agency's financial and operational targets while recovering the full costs of USPTO operations. The process of reviewing, analyzing, and setting fees typically takes two years. The biennial fee review that was completed in FY 2018 informed the revised patent fee schedule implemented on October 2, 2020, and the biennial fee review that was completed in FY 2019 informed the revised trademark fee schedule implemented on January 2, 2021. The patent fee changes increased aggregate revenue by about 7% annually, which positions the USPTO to maintain minimum operating reserves and to deposit into the operating reserve around 3% of fees each year to make progress toward the optimal reserve level. The trademark fee changes increased aggregate revenue by an average of 20% per year, which resolved funding shortfalls and put the USPTO on a path to reach the optimal level. The effective analytics performed on our fee structures, payment patterns, and unit costs continue to provide important insight into our future financial and operational health.

With a sound financial posture, we turned our attention to planning for and executing targeted investments to enable mission success and enhance mission support services. We continue to align costs consistently with customer requirements, priorities, and business needs. As the USPTO advances its hybrid work model, the OCFO continues to partner strategically with our colleagues in the OCAO and the OCIO to drive desired mission outcomes across the USPTO. Specifically, the OCFO supported the OCAO with analyzing the USPTO's long-term campus lease options where the workforce is anticipated to be a more hybrid workforce moving forward. In addition, the OCFO has facilitated the benchmarking of analyses to inform decision making with the OCIO to help mature and refine the IT delivery model. This includes IT investments that are transitioning the USPTO to the agile NWOW paradigm and the increased use of cloud computing to improve IT security and resiliency.

In FY 2021, the OCFO used data-driven analysis to make increasingly complex contract awards that have significant enterprise impacts. First, we adopted a precedent-setting approach that relied on the alternative competition flexibilities in the Patent and Trademark Office Acquisition Guidelines (PTAG) to award the USPTO Business Oriented Software Solutions (BOSS) contract. The total contract value is estimated at up to \$2 billion over 10 years. BOSS was designed to enable a key tenet of the OCIO's vision for NWOW: agile teams composed of "T-shaped" resources wherein a single contractor offers multiple development and operations skill sets. Securing agile teams in this way aims to deliver innovative and cost-effective, modern, IT solutions; stabilize legacy systems; and develop user-centered products that enhance the user experience. While the USPTO continues to work through litigation issues on this contract, this acquisition and the precedent-setting use of the PTAG set the stage for future improvements in the USPTO acquisition program.

Second, we completed a multiyear effort to improve the contracting paradigm for mission-critical patent prosecution pipeline work, which is estimated to cost up to \$2 billion over 10 years. The scope of the contract includes key aspects of patent operations, including indexing and scanning paper documents, performing quality reviews of all electronically filed documents that collectively form the file wrapper, and capturing patent data and composing patent applications for publication and patent grant issuance. The new paradigm awards contracts to two vendors, thereby delivering greater resiliency for mission-critical operations and facilitating the transition to a competitive vendor environment to ensure good value for our stakeholders. The new paradigm also provides for increased physical security and cybersecurity requirements that protect IP data. Lastly, both awards include subcontracting plans to support small business participation and incorporate backup locations to allow for continuity of operations.

The USPTO had several other notable financial accomplishments in FY 2021:

- Early in the year, we worked through the reprogramming process with congressional appropriators to successfully transfer \$232 million of user fees collected in FY 2020 in excess of the Office's annual appropriated level from the patent and trademark fee reserve fund to our operating account.
- We partnered with our colleagues across the agency to identify and mitigate mission, operational, and reputational enterprise risks. One example of a mitigated enterprise risk is quickly awarding a contract that provides Trademarks with capacity to address the unprecedented growth in trademark application filings and inventory.

- We began leading the USPTO through a Strategic Planning process to position future USPTO leadership to set the direction of the agency for the next five years.
- We continued to work toward greater IT security and resiliency by transitioning to a new disaster recovery site and moved our critical fee processing system to the cloud.
- In the areas of budgeting and procurement planning, we continue to develop and mature automated tools to transition from transaction processing to decision support and to enable advanced planning and greater customer service.
- The AGA awarded the USPTO its 19th CEAR® award for the FY 2020 PAR.
 The USPTO also received a Best-in-Class Award for our prominent, clear,
 and concise summary document of financial and performance highlights,
 including key financial measures, trends, performance measures, and colorcoded results.

These accomplishments were the result of the efforts of highly skilled, dedicated, hard-working professionals across the OCFO. I also appreciate the continued support of the entire agency, with special thanks to the OIG and the KPMG audit team, as we continue to work together to sustain financial management excellence at the USPTO.

Jay Hoffman Chief Financial Officer November 5, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE BALANCE SHEETS

As of September 30, 2021 and 2020

(Dollars in Thousands)	2021		2020
ASSETS			
Intragovernmental:			
Fund Balance with Treasury (Note 2)	\$ 2,790,547	\$	2,739,700
Advances and Prepayments (Note 6)	3,163		4,050
Total Intragovernmental With the Public:	2,793,710		2,743,750
Cash and Other Monetary Assets (Note 4)	11,418		32,368
Accounts Receivable, Net (Note 3)	514		508
General Property, Plant, and Equipment, Net (Note 5)	355,843		337,983
Advances and Prepayments (Note 6)	 29,029	-	21,163
Total with the Public	 396,804		392,022
Total Assets (Note 7)	\$ 3,190,514	\$	3,135,772
LIABILITIES			
Intragovernmental:			
Accounts Payable	\$ 12,797	\$	11,415
Other Liabilities:			
Benefit Program Contributions Payable	30,162		27,015
Customer Deposit Accounts (Note 7)	 9,792		8,272
Total Intragovernmental	52,751		46,702
With the Public:			
Accounts Payable	128,670		93,841
Federal Employee Benefits Payable (Note 10)	9,666		10,343
Advances from Others and Deferred Revenue (Note 9)	1,250,318		1,033,073
Other Liabilities:			
Accrued Payroll	174,607		158,154
Annual Leave	155,068		157,306
Customer Deposit Accounts (Note 7)	127,713		151,532
Contingent Liability (Note 12)	415		300
Total with the Public	 1,846,457		1,604,549
Total Liabilities (Note 8)	\$ 1,899,208	\$	1,651,251
NET POSITION			
Cumulative Results of Operations—			
Funds from Dedicated Collections (Note 14)	 1,291,306		1,484,521
Total Net Position	\$ 1,291,306	\$	1,484,521
Total Liabilities and Net Position	\$ 3,190,514	\$	3,135,772

The accompanying notes are an integral part of these financial statements.

UNITED STATES PATENT AND TRADEMARK OFFICE STATEMENTS OF NET COST

For the years ended September 30, 2021 and 2020

(Dollars in Thousands)	2021	2020
STRATEGIC GOAL 1: Optimize Patent Quality and Timeliness		
Program Cost	\$ 3,189,348	\$ 3,199,395
Program Earned Revenue	(3,001,692)	(3,332,096)
Net Program Cost/(Income)	187,656	 (132,701)
STRATEGIC GOAL 2: Optimize Trademark Quality and Timeliness		
Program Cost	372,006	360,477
Program Earned Revenue	 (382,771)	 (324,955)
Net Program (Income)/Cost	 (10,765)	 35,522
STRATEGIC GOAL 3: Provide Domestic and Global Leadership to Improve Intellectual Property Policy, Enforcement, and Protection Worldwide		
Program Cost	 66,083	 63,097
Net Cost/(Income) from Operations (Note 14)	\$ 242,974	\$ (34,082)
TOTAL ENTITY		
Total Program Cost (Notes 15 and 16)	\$ 3,627,437	\$ 3,622,969
Total Earned Revenue	(3,384,463)	(3,657,051)
Net Cost/(Income) from Operations (Note 14)	\$ 242,974	\$ (34,082)

The accompanying notes are an integral part of these financial statements.

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UNITED STATES PATENT AND TRADEMARK OFFICE STATEMENTS OF CHANGES IN NET POSITION

For the years ended September 30, 2021 and 2020

Funds from Dedicated Collections			Funds from Dedicated Collections		
\$	1,484,521	\$	1,424,191		
	1,119		(2,000)		
	48,640		28,248		
	(242,974)		34,082		
	(193,215)		60,330		
\$	1,291,306	\$	1,484,521		
\$	1,291,306	\$	1,484,521		
	\$ 	\$ 1,484,521 1,119 48,640 (242,974) (193,215) \$ 1,291,306	Funds from Dedicated Collections \$ 1,484,521 \$ 1,119		

The accompanying notes are an integral part of these financial statements.

UNITED STATES PATENT AND TRADEMARK OFFICE STATEMENTS OF BUDGETARY RESOURCES

For the years ended September 30, 2021 and 2020

(Dollars in Thousands)	2021	2020
BUDGETARY RESOURCES		
Unobligated Balance, Brought Forward (Note 17)	\$ 744,641	\$ 538,632
Recoveries of Prior Year Obligations	34,028	37,523
Unobligated Balance from Prior Year Budget		
Authority, Net (discretionary)	778,669	576,155
Spending Authority from Offsetting Collections		
(discretionary)	 3,627,427	 3,684,040
Total Budgetary Resources	\$ 4,406,096	\$ 4,260,195
STATUS OF BUDGETARY RESOURCES		
New Obligations (Note 17)	\$ 3,722,450	\$ 3,515,554
Unobligated Balance, End of Year:		
Apportioned	683,646	742,018
Unapportioned	 -	 2,623
Total Status of Budgetary Resources	\$ 4,406,096	\$ 4,260,195
OUTLAYS, NET		
Net Collections (discretionary)	\$ (75,641)	\$ (265,205)

NOTES TO FINANCIAL STATEMENTS POLICIES

as of and for the years ended September 30, 2021 and 2020

NOTE 1:

Summary of Significant Accounting Policies

Basis of Presentation

As required by the Chief Financial Officers Act of 1990 and 31 United States Code (U.S.C.) §3515(b), the accompanying financial statements present the financial position, net cost of operations, and budgetary resources for the USPTO. The books and records of the USPTO serve as the source of this information.

These financial statements were prepared in accordance with accounting principles generally accepted in the United States (GAAP) and the form and content for entity financial statements specified by the Office of Management and Budget (OMB) in Circular No. A-136, *Financial Reporting Requirements*, as amended, as well as the accounting policies of the USPTO. Therefore, these statements may differ from other financial reports submitted pursuant to OMB directives for the purpose of monitoring and controlling the use of the USPTO's budgetary resources. GAAP for federal entities are the standards prescribed by the Federal Accounting Standards Advisory Board, which is the official body for setting the accounting standards of the federal government.

The USPTO presents cost of operations by program. The presentation by program is consistent with the presentation used by the agency in submitting its strategic plan. Program costs consist of both costs related directly to the individual strategic goals and overall support costs allocated to the strategic goals. All costs are assigned to specific programs.

Throughout these financial statements, assets, liabilities, revenues, and costs have been classified according to the type of entity with which the transactions are associated. Intra-governmental assets and liabilities are those from or to other federal entities. Intra-governmental earned revenues are collections or accruals of revenue from other federal entities and intra-governmental costs are payments or accruals to other federal entities.

The format of the Balance Sheet has changed to reflect more detail for certain line items, as required for all significant reporting entities by OMB Circular A-136. This change will allow readers of this Report to see how the amounts shown on the Balance Sheet are reflected on the Government-wide Balance Sheet and thereby support the preparation and audit of the Financial Report of the United States Government. The presentation of the FY 2020 Balance Sheet was modified to be consistent with the FY 2021 presentation. Certain other prior year balances were reclassified to conform with the current year presentation.

The federal budget classifies the USPTO under the Other Advancement of Commerce (376) budget function. The USPTO does not have lending or borrowing authority. The USPTO does not transact business among its own operating units, with the exception of select transactions processed (amounting to \$5 thousand) in an effort to obtain trademarks used by the USPTO. As the amount is immaterial, no intra-entity eliminations are necessary.

The USPTO is not subject to federal, state, or local income taxes. Accordingly, no provision for income taxes is recorded. Allocation transfers are legal delegations by one department of its authority to obligate budget authority and outlay funds to another department. The USPTO does not receive any allocation transfers.

Classified Activities

Accounting standards require all reporting entities to disclose that accounting standards allow certain presentations and disclosures to be modified, if needed, to prevent the disclosure of classified information.

Summary of Significant Accounting Policies (continued)

Basis of Accounting

These financial statements reflect both accrual and budgetary accounting transactions. Under the accrual method of accounting, revenues are recognized when earned and expenses are recognized when incurred, without regard to the receipt or payment of cash. Budgetary accounting is designed to recognize the obligation of funds according to legal requirements, which in many cases is made prior to the occurrence of an accrual-based transaction. Budgetary accounting is essential for compliance with legal constraints and controls over the use of federal funds.

Funds from Dedicated Collections

Funds from dedicated collections are financed by specifically identified revenues, which remain available over time. These specifically identified revenues are required by statute to be used for designated activities, benefits, or purposes, and must be accounted for separately from the government's general revenues. At the USPTO, funds from dedicated collections include the salaries and expenses fund, fee reserve fund, and the special fund receipts. Additional details are provided in Note 14.

Fiduciary Activities

Fiduciary activities are not recognized on the financial statements; rather, they are reported on schedules in the notes to the financial statements. Fiduciary balances are not assets of the federal government. Fiduciary activities are the collection or receipt, and the management, protection, accounting, and disposition by the federal government of cash or other assets in which non-federal individuals or entities have an ownership interest that the federal government must uphold. At the USPTO, fiduciary activities are recorded in the Patent Cooperation Treaty fund and the Madrid Protocol fund. Additional details are provided in Note 19.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from estimates.

Revenue and Other Financing Sources

Exchange Revenue: Since FY 1992, the USPTO's funding has been primarily through the collection of user fees. Fees that are remitted with initial applications and requests for other services are recorded as exchange revenue when received, with an adjustment to defer revenue for services that have not been performed. Individual fees for Patent maintenance fees and Trademark renewal fees are recorded as exchange revenue when received and help to recoup costs incurred during the initial patent and trademark review processes. All amounts remitted by customers without a request for service are recorded as liabilities in customer deposit accounts until services are ordered. In 2011, the USPTO received fee setting authority under section 10 of the Leahy-Smith America Invents Act. Section 10(a) of the Leahy-Smith America Invents Act authorizes the Director of the USPTO to set or adjust by rule all patent and trademark fees to recover the aggregate estimated cost to the USPTO. Provided that the fees in the aggregate achieve overall aggregate cost recovery, the Director of USPTO may set individual fees under section 10, at, below, or above their respective cost.

The USPTO also receives financial gifts and gifts-in-kind. All such transactions are included in the consolidated Gifts and Bequests Fund financial statements of the U.S. Department of Commerce. These gifts are not reflected in the USPTO's financial statements. Most gifts-in-kind are used for official travel to further attain the USPTO mission and objectives.

Summary of Significant Accounting Policies (continued)

Imputed Financing Sources from Cost Absorbed by Others (and Related Imputed Costs): In certain cases, operating costs of the USPTO are paid for in full or in part by funds appropriated to other federal entities. For example, Civil Service Retirement System (CSRS) pension benefits for applicable USPTO employees are paid for in part by the OPM, and certain legal judgments against the USPTO are paid for in full from the Judgment Fund maintained by Treasury. Also, the cost of collecting fees electronically for the USPTO are paid for in full by Treasury. The USPTO includes applicable Imputed Costs on the Statements of Net Cost. In addition, an Imputed Financing Source from Cost Absorbed by Others is recognized on the Statements of Changes in Net Position.

Transfers In/Out: Intragovernmental transfers of budget authority without reimbursement are recorded at book value.

Entity/Non-Entity

Assets that an entity is authorized to use in its operations are termed entity assets, while assets that are held by an entity and are not available for the entity's use are termed non-entity assets. Most of the USPTO's assets are entity assets and are available to carry out the mission of the USPTO, as appropriated by Congress, with the exception of a portion of the Fund Balance with Treasury and cash and other monetary assets. Additional details are provided in Note 7.

Fund Balance with Treasury

The USPTO deposits fees collected in commercial bank accounts maintained by the Treasury's Bureau of the Fiscal Service (BFS). All moneys maintained in these accounts are transferred to the Federal Reserve Bank on the next business day following the day of deposit. In addition, many customer deposits are wired directly to the Federal Reserve Bank. All banking activity is conducted in accordance with the directives issued by the BFS. Treasury processes all disbursements. Additional details are provided in Note 2.

Accounts Receivable

Accounts receivable balances are established for amounts owed to the USPTO from its employees and governmental entities that do business with the USPTO. This balance in accounts receivable remains as a very small portion of the USPTO's assets, as the USPTO requires payment prior to the provision of goods or services during the course of its goals. Additional details are provided in Note 3.

The USPTO has established an allowance for certain accounts receivables that are considered not collectible. These offsets are established for receivables older than two years with little or no collection activity that have been transferred to Treasury, subsequently adjusting the gross amount of its employee-related accounts receivable to the net realizable value. The USPTO regards all of the intergovernmental receivables balances as fully collectable.

Advances and Prepayments

The USPTO prepays amounts in anticipation of receiving future benefits. Although a payment has been made, an expense is not recorded until goods have been received or services have been performed. The USPTO has prepayments and advances with non-governmental, as well as governmental vendors. Additional details are provided in Note 6.

Summary of Significant Accounting Policies (continued)

Cash and Other Monetary Assets

The USPTO's cash and other monetary assets balance primarily consists of checks, electronic funds transfer, and credit card payments for deposits that are in transit and have not been credited to the USPTO's Fund Balance with Treasury. The cash and other monetary assets balance also consists of checks for fees that were not processed at the *Balance Sheet* date due to the lag time between receipt and initial review. All such undeposited check amounts are considered to be cash equivalents. Additional details are provided in Note 4.

General Property, Plant, and Equipment, Net

The USPTO's capitalization policies are summarized below:

Classes of General Property, Plant, and Equipment	Capitalization Threshold for Individual Purchases	Capitalization Threshold for Bulk Purchases
IT Equipment	\$50 thousand or greater	\$250 thousand or greater
Software	\$50 thousand or greater	\$250 thousand or greater
Software in Development	\$50 thousand or greater	\$250 thousand or greater
Furniture	\$50 thousand or greater	\$ 50 thousand or greater
Equipment	\$50 thousand or greater	\$250 thousand or greater
Leasehold Improvements	\$50 thousand or greater	Not applicable

Costs capitalized are recorded at actual historical cost. Depreciation is expensed on a straight-line basis over the estimated useful life of the asset with the exception of leasehold improvements, which are depreciated over the remaining life of the lease or over the useful life of the improvement, whichever is shorter. As needed, useful lives of assets are updated to reflect current estimates; the estimated useful life is used on a prospective basis. Additional details are provided in Note 5.

Employee and contractor costs for developing custom internal use software are capitalized when incurred for the design, coding, and testing of the software. Software in development is not amortized until placed in service.

General property, plant, and equipment acquisitions that do not meet the capitalization criteria are expensed upon receipt.

Workers' Compensation

The Federal Employees' Compensation Act (FECA) provides compensation and medical cost protection to covered federal civilian employees injured on the job and for those who have contracted a work-related occupational disease, and beneficiaries of employees whose death is attributable to a job-related injury or occupational disease. Claims incurred for benefits under the FECA for the USPTO's employees are administered by the Department of Labor (DOL) and are paid ultimately by the USPTO.

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Summary of Significant Accounting Policies (continued)

Accrued Liability: The DOL bills the USPTO annually as its claims are paid, but payment on these bills is deferred approximately two years to allow for funding through the budget process.

Actuarial Liability: The DOL estimates the future workers compensation liability by applying actuarial procedures developed to estimate the liability for FECA benefits. The actuarial liability estimates for FECA benefits include the expected liability for death, disability, medical, and miscellaneous costs for approved compensation cases, plus a component for incurred but not reported claims. The actuarial liability is updated annually.

Unemployment Compensation

USPTO employees who lose their jobs through no fault of their own may receive unemployment compensation benefits under the unemployment insurance program administered by the DOL. The DOL bills each agency quarterly as its claims are paid.

Annual, Sick, and Other Leave

Annual leave and compensatory time are accrued as earned, with the accrual being reduced when leave is taken. An adjustment is made each fiscal quarter to ensure that the balances in the accrued leave accounts reflect current pay rates. No portion of this liability has been obligated. To the extent current year funding is not available to pay for leave earned but not taken, funding will be obtained from future financing sources. Sick leave and other types of non-vested leave are expensed as used.

Employee Retirement Systems and Post-Employment Benefits

USPTO employees participate in either the CSRS or the Federal Employees Retirement System (FERS). The FERS was established by the enactment of Pub. L. No. 99-335. Pursuant to this law, the FERS and Social Security automatically cover most employees hired after December 31, 1983. Employees who had five years of federal civilian service prior to 1984 and who are rehired after a break in service of more than one year may elect to join the FERS and Social Security system or be placed in the CSRS offset retirement system. The USPTO's financial statements do not report CSRS or FERS assets, accumulated plan benefits, or liabilities applicable to its employees. The reporting of such amounts is the responsibility of the OPM, who administers the plans. While the USPTO reported no liability for future payments to employees under these programs, the federal government is liable for future payments to employees through the OPM who administers these programs. The USPTO financial statements recognize a funded expense for the USPTO's share of the costs to the federal government of providing pension, post-retirement health, and post-retirement life insurance benefits to all eligible USPTO employees. In addition to the funded expense, the USPTO financial statements also recognize an imputed cost for the OPM's share of the costs to the federal government of providing pension and postretirement health benefits to all eligible USPTO employees. The USPTO's appropriation requires full funding of the present costs, as determined by the OPM, of post-retirement benefits for the Federal Employees Health Benefit Program (FEHB), the Federal Employees Group Life Insurance Program (FEGLI), and pensions under the CSRS. While ultimate administration of any post-retirement benefits or retirement system payments will continue to be administered by the OPM, the USPTO is responsible for the payment of the present value associated with these costs calculated using the OPM factors. Any difference between the OPM factors for funding purposes and the OPM factors for reporting purposes is recognized as an imputed cost. Additional details are provided in Note 13.

Summary of Significant Accounting Policies (continued)

For the years ended September 30, 2021 and 2020, the USPTO made current year contributions through agency payroll contributions and quarterly supplemental payments to OPM equivalent to approximately 31.1% and 26.1%, respectively, of the employee's basic pay for those employees covered by CSRS, based on OPM cost factors. For the years ended September 30, 2021 and 2020, the USPTO made current year contributions through agency payroll contributions equivalent to approximately 16.8% and 15.7%, respectively, of the employee's basic pay for those employees covered by FERS, based on OPM cost factors. As contribution funding increases, imputed costs will correspondingly decrease.

All employees are eligible to contribute to a Thrift Savings Plan. For those employees participating in the FERS, a Thrift Savings Plan is automatically established, and the USPTO makes a mandatory contribution to this plan equal to 1% of the employees' compensation. In addition, the USPTO makes matching contributions ranging from 1% to 4% of the employees' compensation for FERS-eligible employees who contribute to their Thrift Savings Plans. No matching contributions are made to the Thrift Savings Plans for employees participating in the CSRS. Employees participating in the FERS are also covered under the Federal Insurance Contributions Act (FICA), for which the USPTO contributes a matching amount to the Social Security Administration.

Advances from Others and Deferred Revenue

Deferred revenue represents fees that have been received by the USPTO for requested services that have not been substantially completed. Two types of deferred revenue are recorded. The first type results from checks received, accompanied by requests for services, which were not yet deposited due to the lag time between receipt and initial review. The second type of deferred revenue relates primarily to fees for applications that have been partially processed. The deferred revenue balance is estimated by analyzing the process for completing each service that the USPTO provides. The percent incomplete based on the inventory of pending work and completion status is applied to fee collections to estimate the amount for deferred revenue. Deferred revenue at the USPTO is largely impacted by the change in patent and trademark filings, changes in the first action pendency rates, and changes in fee rates. Increases in patent and trademark filings, first action pendency rates, and fee rates result in increases in deferred revenue. The components of the liability are provided in Note 9.

Net Position

Net Position is the residual difference between assets and liabilities, and is composed of Cumulative Results of Operations. Cumulative Results of Operations is the net result of the USPTO's operations since inception.

Environmental Cleanup

The USPTO does not have any known liabilities for environmental cleanup.

NOTE 2: Fund Balance with Treasury

As of September 30, 2021 and 2020, Fund Balance with Treasury consisted of the following:

(Dollars in Thousands)	2021	2020
Status of Fund Balance with Treasury:		
Obligated Balance Not Yet Disbursed	\$ 802,481	\$ 667,844
Unobligated Balance Available - Operating Reserves	683,646	510,135
Unobligated Balance Available - PTFRF	-	231,883
Unobligated Balance Unavailable	-	2,623
Temporarily Not Available Pursuant to Public Law	937,819	937,819
Non-Budgetary Fund Balance with Treasury	366,601	389,396
Total Fund Balance with Treasury	\$ 2,790,547	\$ 2,739,700

No discrepancies exist between the Fund Balance reflected in the general ledger and the balance in the Treasury accounts.

To sustain day-to-day operations by leveling differences between daily fee collections and daily costs and mitigating the risk of changing demand for USPTO services, the USPTO reserves a portion of the amount Congress makes available annually through appropriations to the USPTO Salaries and Expense general fund as a designated operating reserve that will be carried over for use in future years. As of September 30, 2021, the total Patent reserve was \$475,870 thousand and the total Trademark reserve was \$207,776 thousand. As of September 30, 2020, the total Patent reserve was \$394,929 thousand and the total Trademark reserve was \$115,206 thousand.

As of September 30, 2021, the USPTO collected less fees than appropriated for the fiscal year. As a result, there were no funds deposited in the fee reserve fund as of September 30, 2021. As of September 30, 2020, the USPTO collected more fees than appropriated for the fiscal year. As a result, \$231,883 thousand was deposited into the Patent and Trademark Fee Reserve Fund. The Consolidated Appropriations Act, 2020 (Pub. L. No. 116-93) appropriated the funds and required the agency to submit a reprogramming request to make the funds available for use.

As of September 30, 2021 and 2020, the Non-Budgetary Fund Balance with Treasury includes unavailable surcharge receipts held in a special fund of \$233,529 thousand for each year presented and non-entity customer deposit accounts held in deposit funds of \$133,072 thousand and \$155,867 thousand, respectively.

From FY 1990 through FY 2011 and prior to the Leahy-Smith America Invents Act, the USPTO was not always appropriated all of the fees and surcharges that were collected from customers. As of September 30, 2021 and 2020, previously collected and temporarily unavailable fee collections on deposit in the USPTO accounts at Treasury are \$1,171,348 thousand. Of this amount, \$790,086 thousand are previously collected fees for patent and trademark services provided to customers, \$233,529 thousand in surcharge collections from patent customers withheld in accordance with the OBRA of 1990 and deposited in a special fund receipt account at Treasury, and patent and trademark sequestered funds of \$147,733 thousand pursuant to the Consolidated and Further Continuing Appropriations Act, 2013 (Pub. L. No. 113 -6) and remain unavailable.

NOTE 2: Fund Balance with Treasury (continued)

(Dollars in Thousands)	Patents	7	Trademarks	Totals
Previously Collected Fees in Excess of Appropriations	\$ 580,443	\$	209,643	\$ 790,086
Previously Collected Surcharge Fund Receipts	233,529		-	233,529
Previously Collected Fees Not Available	\$ 813,972	\$	209,643	\$ 1,023,615
Previously Collected Fees Sequestered	134,291		13,442	147,733
Total Unavailable Fees	\$ 948,263	\$	223,085	\$ 1,171,348

NOTE 3:

Accounts Receivable, Net

As of September 30, 2021, USPTO entity accounts receivable consisted of the following:

(Dollars in Thousands)	 Accounts Receivable, Gross		Allowance for Uncollectible Accounts		Accounts Receivable, Net	
With the Public	\$ 848	\$	(334)	\$	514	

As of September 30, 2020, USPTO entity accounts receivable consisted of the following:

(Dollars in Thousands)	 Accounts Receivable, Gross		Allowance for Uncollectible Accounts		Accounts Receivable, Net	
With the Public	\$ 732	\$	(224)	\$	508	

NOTE 4:

Cash and Other Monetary Assets

As of September 30, 2021 and 2020, cash and other monetary assets consisted of the following:

(Dollars in Thousands)	 2021	 2020
Deposits in Transit	\$ 11,413	\$ 32,346
Undeposited Checks	5	22
Total Cash and Other Monetary Assets	\$ 11,418	\$ 32,368

As of September 30, 2021 and 2020, cash and other monetary assets included customer deposit accounts held with the public amounting to \$4,433 thousand and \$3,937 thousand, respectively.

NOTE 5:

General Property, Plant, and Equipment, Net

As of September 30, 2021, general property, plant, and equipment, net, consisted of the following:

(Dollars in Thousands)

Classes of General Property, Plant, and Equipment	Useful Life (Years)	Acqı	uisition Value	Accumulated Depreciation/ Amortization	Net	Book Value
IT Equipment	3-5	\$	277,700	\$ 234,190	\$	43,510
Software	3		1,176,075	973,304		202,771
Software in Development	-		58,537	-		58,537
Furniture	7		37,348	21,240		16,108
Equipment	3-8		2,067	1,928		139
Leasehold Improvements	5-20		140,112	105,334		34,778
Total Property, Plant, and Equipment		\$	\$1,691,839	\$ 1,335,996	\$	355,843

As of September 30, 2020, general property, plant, and equipment, net, consisted of the following:

(Dollars in Thousands)

Classes of General Property, Plant, and Equipment	Useful Life (Years)	Acqu	isition Value	Accumulated Depreciation/ Amortization	N	et Book Value
IT Equipment	3-5	\$	284,890	\$ 235,052	\$	49,838
Software	3		1,086,288	928,519		157,769
Software in Development	-		62,983	-		62,983
Furniture	7		38,046	16,913		21,133
Equipment	3-8		5,365	4,368		997
Leasehold Improvements	5-20		138,518	93,255		45,263
Total Property, Plant, and Equipment		\$	1,616,090	\$ 1,278,107	\$	337,983

The USPTO does not have any restrictions on the use or convertibility of the general property, plant, and equipment balances.

(Dollars in Thousands)	2021			2020
Balance, Beginning of Year	\$	337,983	\$	459,342
Capitalized Acquisitions		165,160		84,064
Capitalized Acquisitions, Accrued		25,007		1,318
Loss on Dispositions		(722)		(797)
Depreciation Expense		(171,585)		(205,944)
Balance, End of Year	\$	355,843	\$	337,983

NOTE 6:

Advances and Prepayments

As of September 30, 2021 and 2020, advances and prepayments consisted of the following:

(Dollars in Thousands)	2021	2020			
Intragovernmental					
Advances and Prepayments	\$ 3,163	\$	4,050		
With the Public					
Advances and Prepayments	\$ 29,029	\$	21,163		
Total	\$ 32,192	\$	25,213		

The largest governmental prepayments include the USPTO deposit accounts held with the U.S. Government Publishing Office to facilitate recurring transactions, the U.S. Postal Service for postage, and the Department of Commerce for centralized services.

The largest prepayments with the public as of September 30, 2021 and 2020 were predominately \$27,466 thousand and \$18,757 thousand, respectively, for various hardware and software maintenance agreements and \$1,564 thousand and \$2,358 thousand, respectively, for various library and online database subscriptions.

NOTE 7:

Entity and Non-Entity Assets

Non-entity assets are amounts held on deposit for the convenience of the USPTO's customers.

Customers have the option of maintaining a deposit account at the USPTO to facilitate the order process. Customers can draw from their deposit account when they place an order and can replenish their deposit account as desired. Funds maintained in customer deposit accounts are not available for the USPTO use until an order has been placed. Once an order has been placed, the funds are reclassified to entity funds.

As of September 30, 2021 and 2020, entity and non-entity assets consisted of the following:

(Dollars in Thousands)		2021	2020
Fund Balance with Treasury:			
Intragovernmental Customer Deposit Accounts	\$	9,792	\$ 8,272
Customer Deposit Accounts with the Public		123,280	147,595
Total Fund Balance with Treasury		133,072	155,867
Undeposited Collections:			
Customer Deposit Accounts with the Public		4,433	 3,937
Total Non-Entity Assets		137,505	159,804
Total Entity Assets		3,053,009	 2,975,968
Total Assets	\$	3,190,514	\$ 3,135,772

NOTE 8:

Liabilities Covered and Not Covered by Budgetary Resources

The USPTO records liabilities for amounts that are likely to be paid as the direct result of events that have already occurred. The USPTO's liabilities covered by budgetary resources are funded by realized budgetary resources. Realized budgetary resources include obligated balances funding existing liabilities and unobligated balances (operating reserve) as of September 30, 2021.

Although future appropriations to fund liabilities not covered by budgetary resources are probable and anticipated, Congressional action is needed before budgetary resources can be provided.

As of September 30, 2021 and 2020, liabilities covered and not covered by budgetary resources were as follows:

(Dollars in Thousands)	2021		2020
Liabilities Covered by Resources			
Intragovernmental:			
Accounts Payable	\$ 12,797	\$	11,415
Other Liabilities:			
Benefit Program Contributions Payable	 28,761		25,273
Total Intragovernmental	41,558		36,688
With the Public:			
Accounts Payable	128,029		93,409
Advances from Others and Deferred Revenue	683,645		510,134
Other Liabilities:			
Accrued Payroll	 97,867		89,080
Total with the Public	 909,541		692,623
Total Liabilities Covered by Resources	\$ 951,099	\$	729,311
Liabilities Not Covered by Resources			
Intragovernmental:			
Other Liabilities:			
Benefit Program Contributions Payable	\$ 1,401	\$	1,742
Total Intragovernmental	1,401		1,742
With the Public:			
Accounts Payable	641		432
Federal Employee Benefits Payable	9,666		10,343
Advances from Others and Deferred Revenue	566,673		522,939
Other Liabilities:			
Accrued Payroll	76,740		69,074
Annual Leave	155,068		157,306
Contingent Liability	 415		300
Total with the Public	 809,203		760,394
Total Liabilities Not Covered by Resources	\$ 810,604	\$	762,136
Liabilities Not Requiring Resources			
Intragovernmental:			
Other Liabilities:			
Customer Deposit Accounts	\$ 9,792	\$	8,272
Total Intragovernmental	 9,792		8,272
With the Public:			
Other Liabilities:			
Customer Deposit Accounts	 127,713		151,532
Total with the Public	 127,713		151,532
Total Liabilities Not Requiring Resources	\$ 137,505	\$	159,804
Total Liabilities	\$ 1,899,208	\$	1,651,251
	 	-	

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NOTE 9:

Advances from Others and Deferred Revenue

As of September 30, 2021, deferred revenue consisted of the following:

(Dollars in Thousands)	ands) Patent		Ti	rademark	Total							
Unearned Fees	\$ 1,040,514		rned Fees \$ 1,040,514 \$ 209,		\$ 1,040,514 \$ 209,79		\$ 1,040,514 \$ 209,79		209,799	\$	1,250,313	
Undeposited Checks		5		-		5						
Total Deferred Revenue	\$	1,040,519	\$	209,799	\$	\$1,250,318						

As of September 30, 2020, deferred revenue consisted of the following:

(Dollars in Thousands)		Patent	Tr	ademark	Total				
Unearned Fees	ned Fees \$ 912,814		\$ 912,814 \$		\$	120,237	\$	1,033,051	
Undeposited Checks		20		2		22			
Total Deferred Revenue	\$	912,834	\$	120,239	\$	1,033,073			
				·					

NOTE 10:

Federal Employee Benefits Payable

The FECA actuarial liability is calculated annually, as of September 30th by the DOL. For FY 2021 and 2020, projected annual payments were discounted to the present value based on averaging the Treasury's Yield Curve for Treasury Nominal Coupon (TNC) issues for the current and prior four years to reflect the average duration in years for income and medical payments, respectively. Interest rate assumptions utilized for discounting were as follows:

2021	2020
For wage benefits:	For wage benefits:
2.23% in year 1,	2.41% in year 1,
and thereafter	and thereafter
For medical benefits:	For medical benefits:
2.06% in year 1,	2.30% in year 1,
and thereafter	and thereafter

Based on information provided by the DOL, the U.S. Department of Commerce estimated the USPTO's liability as of September 30, 2021 and 2020 was \$9,666 thousand and \$10,343 thousand, respectively.

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Leases

Operating Leases:

The General Services Administration (GSA) negotiates long-term office space leases and levies rent charges, paid by the USPTO, approximate to commercial rental rates. These operating lease agreements for the USPTO's office buildings are cancelable with appropriate notification and expire at various dates between FY 2022 and FY 2035. During the years ended September 30, 2021 and 2020, the USPTO paid \$89,463 thousand and \$91,645 thousand, respectively, to the GSA for rent.

Under existing commitments, the future minimum lease payments as of September 30, 2021 are as follows:

(Dollars in Thousands)	Fiscal Year	Rea	Total al Property
	2022 2023		59,681
			59,493
	2024		53,911
	2025		4,612
	2026		4,707
	Thereafter	32,080 \$ 214,484	
	Total Future Minimum Lease Payments		

The commitments shown above relate primarily to the operating lease for the USPTO headquarters and regional offices.

Lease Location	Lease Initiation	Lease Expiration
Detroit, Michigan	FY 2012	FY 2022
Alexandria, Virginia	FY 2004	FY 2024
Denver, Colorado	FY 2021	FY 2029
Dallas, Texas	FY 2016	FY 2031
Shirlington, Virginia	FY 2020	FY 2035

Commitments and Contingencies

The USPTO is a party to various routine administrative proceedings, legal actions, and claims brought by or against it, including threatened or pending litigation involving labor relations claims, some of which may ultimately result in settlements or decisions against the federal government.

As of September 30, 2021, management expected it was reasonably possible that approximately \$900 thousand may be owed for awards or damages involving labor relations claims. As of September 30, 2020, management expected it was reasonably possible that approximately \$600 thousand may be owed for awards or damages involving labor relations claims.

As of September 30, 2021, the USPTO was subject to suits where an adverse outcome was probable and the claims were \$415 thousand. As of September 30, 2020, the USPTO was subject to suits where an adverse outcome was probable and the claims were \$300 thousand.

For the years ended September 30, 2021 and 2020, there were no payments made on behalf of the USPTO from the Judgment Fund.

As of September 30, 2021 and 2020, the USPTO did not have any major long-term commitments.

NOTE 13:

Post-employment Benefits

For the years ended September 30, 2021 and 2020, the post-employment benefit expenses were as follows:

(Dollars in Tho	usands)		:	2021	2020							
	F	unded	lr	nputed		Total	I	Funded	li	mputed		Total
CSRS	\$	6,449	\$	1,021	\$	7,470	\$	6,304	\$	1,104	\$	7,408
FERS		277,590		4,136		281,726		248,869		(3,064)		245,805
FEHB		92,372		3,035		95,407		89,457		203		89,660
FEGLI		279		-		279		272		-		272
FICA		123,261				123,261		119,075		-		119,075
Total Cost	\$	499,951	\$	8,192	\$	508,143	\$	463,977	\$	(1,757)	\$	462,220

Funds from Dedicated Collections

Funds from dedicated collections are financed by specifically identified revenues, which remain available over time. These specifically identified revenues are required by statute to be used for designated activities, benefits, or purposes, and must be accounted for separately from the government's general revenues. At the USPTO, funds from dedicated collections include the salaries and expenses fund, the fee reserve fund, and the special fund receipts. Non-entity funds, as disclosed in Note 7, are not funds from dedicated collections and are therefore excluded from the below amounts.

The **Salaries and Expenses Fund** contains moneys used for the examining and granting or registering of patents and trademarks and advising the Secretary of Commerce, the President of the United States, and the Administration on patent, trademark, and copyright protection, and trade-related aspects of intellectual property. This fund is used for the USPTO's goals – granting patents, registering trademarks, and intellectual property policy, enforcement, and protection – that promote the use of intellectual property rights as a means of achieving economic prosperity. These activities give innovators, businesses, and entrepreneurs the protection and encouragement they need to turn their creative ideas into tangible products, and also provide protection for their inventions and trademarks. The USPTO may use moneys from this account only as authorized by Congress via appropriations. As discussed in Note 2 and as of September 30, 2021, the salaries and expenses fund includes the Patent operating reserve of \$475,870 thousand and the Trademark operating reserve of \$207,776 thousand. As of September 30, 2020, the salaries and expenses fund includes the Patent operating reserve of \$115,206 thousand.

The **Patent and Trademark Fee Reserve Fund** was created by the Leahy-Smith America Invents Act enacted on September 16, 2011 (Pub. L. No. 112-29) modifying 35 U.S.C \$42(c). This established a statutory provision allowing the USPTO to collect and deposit in this fund fees collected in excess of the appropriated levels for each fiscal year. Annual appropriations, subject to Congressional reprogramming requirements, provide further the authorization for the USPTO to spend those fees, which are available without fiscal limitation until expended. There were no funds deposited in the fee reserve fund as of September 30, 2021. As of September 30, 2020, \$231,883 thousand was deposited in the fee reserve fund.

The **Surcharge Fund** was created through the Patent and Trademark Office Surcharge provision in the Omnibus Budget Reconciliation Act (OBRA) of 1990 (Section 10101, Pub. L. No. 101-508). This required that the USPTO impose a surcharge on certain patent fees and set in statute the amounts of money that the USPTO should deposit in a special fund receipt account at Treasury. Due to a lack of Congressional reauthorization, this surcharge expired at the end of FY 1998. The USPTO may use moneys from this account only as appropriated by Congress, and only as made available by the issuance of a Treasury warrant.

NOTE 14: Funds from Dedicated Collections *(continued)*

(Dollars in Thousands)	Salaries and Expenses Fund		Fee Reserve Fund		S	urcharge Fund	Total Funds from Dedicated Collections		
Balance Sheet as of September 30, 2021									
Intragovernmental:									
Fund Balance with Treasury	\$	2,423,946	\$	-	\$	233,529	\$	2,657,475	
Advances and Prepayments		3,163						3,163	
Total Intragovernmental		2,427,109				233,529		2,660,638	
With the Public:									
Cash and Other Monetary Assets		6,985		-		-		6,985	
Accounts Receivable, Net		514		-		-		514	
General Property, Plant, and Equipment, Ne	t	355,843		-		-		355,843	
Advances and Prepayments		29,029						29,029	
Total With the Public		392,371	<u></u>				<u></u>	392,371	
Total Assets	\$	2,819,480	\$		\$	233,529	\$	3,053,009	
Intragovernmental:									
Accounts Payable	\$	12,797	\$	-	\$	-	\$	12,797	
Benefit Program Contributions		20162						20.162	
Payable		30,162						30,162	
Total Intragovernmental		42,959						42,959	
With the Public:		100 (70						100 (70	
Accounts Payable		128,670		-		-		128,670	
Federal Employee Benefits Payable		9,666		-		-		9,666	
Advances from Others and Deferred Revenue	9	1,250,318		-		-		1,250,318	
Other Liabilities:		174 () 7						174 (07	
Accrued Payroll Annual Leave		174,607		-		-		174,607	
		155,068		-		-		155,068	
Contingent Liability		415						415	
Total with the Public	<u></u>	1,718,744	<u></u>					1,718,744	
Total Liabilities	\$	1,761,703	\$		\$		\$	1,761,703	
Cumulative Results of Operations		1,057,777		_		233,529		1,291,306	
Total Liabilities and Net Position	\$	2,819,480	\$		\$	233,529	\$	3,053,009	
Statement of Net Cost For the Year									
Ended September 30, 2021									
Total Program Cost	\$	3,627,437	\$	_	\$	_	\$	3,627,437	
Less Program Earned Revenue	Ψ	(3,384,463)	Ψ	_	\$	_	Ψ	(3,384,463)	
Net Cost of Operations	\$	242,974	\$		\$		\$	242,974	
Statement of Changes in Net Position For the Year Ended September 30, 2021									
•									
Cumulative Results of Operations Beginning Balance	Œ	1,019,109	¢	221 002	¢	222 520	Œ	1 /0 / 521	
Transfers In/(Out) Without	\$	1,019,109	\$	231,883	\$	233,529	\$	1,484,521	
Reimbursement		233,002		(231,883)		-		1,119	
Imputed Financing		48,640		-		_		48,640	
Net Cost of Operations		(242,974)		_		_		(242,974)	
Net Change in Cumulative Results of Operations		38,668		(231,883)				(193,215)	
Cumulative Results of Operations - Ending	° 	1,057,777	\$	(231,003)	\$	233,529	\$	1,291,306	
Net Position, End of Year	\$	1,057,777	\$		\$	233,529	\$	1,291,306	
	<u>*</u>	1,001,111	<u> </u>		Ψ		Ψ	1,271,300	
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NOTE 14: Funds from Dedicated Collections *(continued)*

(Dollars in Thousands)		alaries and penses Fund	Fee F	Reserve Fund	Surc	:harge Fund	Total Funds from ge Fund Dedicated Collections		
Balance Sheet as of September 30, 2020 Intragovernmental:								_	
Fund Balance with Treasury Advances and Prepayments	\$	2,118,421 4,050	\$	231,883	\$	233,529	\$	2,583,833 4,050	
Total Intragovernmental	-	2,122,471		231,883		233,529		2,587,883	
With the Public:									
Cash and Other Monetary Assets		28,431		-		-		28,431	
Accounts Receivable, Net		508		-		-		508	
General Property, Plant, and Equipment, Net		337,983		-		-		337,983	
Advances and Prepayments		21,163						21,163	
Total with the Public		388,085						388,085	
Total Assets	\$	2,510,556	\$	231,883	\$	233,529	\$	2,975,968	
Intragovernmental:									
Accounts Payable Benefit Program Contributions	\$	11,415	\$	-	\$	-	\$	11,415	
Payable		27,015		-		-		27,015	
Total Intragovernmental		38,430		-				38,430	
With the Public:		02.041						02.041	
Accounts Payable		93,841		-		-		93,841	
Federal Employee Benefits Payable Advances from Others and Deferred Revenue	_	10,343		-		-		10,343	
Other Liabilities:	3	1,033,073		-		-		1,033,073	
Accrued Payroll		158,154		-		-		158,154	
Annual Leave		157,306		-		-		157,306	
Contingent Liability		300		_		_		300	
Total with the Public		1,453,017		_		_		1,453,017	
Total Liabilities	\$	1,491,447	\$		\$		\$	1,491,447	
Cumulative Results of Operations		1,019,109		231,883		233,529		1,484,521	
Total Liabilities and Net Position	\$	2,510,556	\$	231,883	\$	233,529	\$	2,975,968	
Statement of Net Cost For the Year Ended September 30, 2020									
Total Program Cost	\$	3,622,969	\$	_	\$	_	\$	3,622,969	
Less Program Earned Revenue	•	(3,657,051)	,	_	,	-	,	(3,657,051)	
Net Income From Operations	\$	(34,082)	\$	_	\$	_	\$	(34,082)	
Statement of Changes in Net Position For									
the Year Ended September 30, 2020									
Cumulative Results of Operations									
Beginning Balance	\$	1,161,922	\$	28,740	\$	233,529	\$	1,424,191	
Transfers In/(Out) Without									
Reimbursement		(205,143)		203,143		-		(2,000)	
Imputed Financing		28,248		-		-		28,248	
Net Income from Operations		34,082						34,082	
Net Change in Cumulative Results of Operations		(142,813)	<u></u>	203,143	<u></u>	-	<u></u>	60,330	
Cumulative Results of Operations - Ending	\$	1,019,109	\$	231,883	\$	233,529	\$	1,484,521	
Net Position, End of Year	\$	1,019,109	\$	231,883	\$	233,529	\$	1,484,521	

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Program Costs

Program costs consist of both costs related directly to the strategic goals and overall support costs allocated to the strategic goals. All costs are assigned to specific programs. Total program or operating costs for the years ended September 30, 2021 and 2020 by cost category were as follows:

(Dollars in Thousands)	2021							
(Dollars III Thousands)		Direct		Allocated		Total		
Personnel Services and Benefits	\$	2,343,103	\$	185,994	\$	2,529,097		
Travel and Transportation		23		283		306		
Rent, Communications, and Utilities		81,685		39,302		120,987		
Printing and Reproduction		162,828		125		162,953		
Contractual Services		229,486		277,590		507,076		
Training		2,866		2,607		5,473		
Maintenance and Repairs		2,749		48,870		51,619		
Supplies and Materials		43,493		2,049		45,542		
Equipment not Capitalized		1,997		29,270		31,267		
Insurance Claims and Indemnities		696		114		810		
Depreciation, Amortization, and Loss on Asset Dispositions		113,458		58,849		172,307		
Total Program Costs	\$	2,982,384	\$	645,053	\$	3,627,437		

(Dollars in Thousands)	2020						
(Dollars III Tribusurius)		Direct		Allocated		Total	
Personnel Services and Benefits	\$	2,280,234	\$	180,788	\$	2,461,022	
Travel and Transportation		1,361		394		1,755	
Rent, Communications, and Utilities		86,747		38,596		125,343	
Printing and Reproduction		162,573		199		162,772	
Contractual Services		262,462		271,821		534,283	
Training		2,954		2,706		5,660	
Maintenance and Repairs		3,641		45,922		49,563	
Supplies and Materials		43,054		2,216		45,270	
Equipment not Capitalized		6,656		23,820		30,476	
Insurance Claims and Indemnities		29		55		84	
Depreciation, Amortization, and Loss on Asset Dispositions		139,689		67,052		206,741	
Total Program Costs	\$	2,989,400	\$	633,569	\$	3,622,969	

Program Costs by Strategic Goal

The following tables present program costs for:

- Strategic Goal 1: Optimize Patent Quality and Timeliness in the column titled Patent;
- Strategic Goal 2: Optimize Trademark Quality and Timeliness in the column titled Trademark; and
- Strategic Goal 3: Provide Domestic and Global Leadership to Improve Intellectual Property Policy, Enforcement, and Protection Worldwide in the column titled Intellectual Property Protection.

The program costs for the years ended September 30, 2021 and 2020 by strategic goal were as follows:

			20	21			
(Dollars in Thousands)		Patent	Trademark		Intellectual Property Protection	Total	
Direct Costs							
Personnel Services and Benefits	\$	2,085,712	\$ 223,686	\$	33,705	\$ 2,343,103	
Travel and Transportation		10	10		3	23	
Rent, Communications, and Utilities	5	68,711	9,429		3,545	81,685	
Printing and Reproduction		162,792	33		3	162,828	
Contractual Services		193,837	20,338		15,311	229,486	
Training		2,555	232		79	2,866	
Maintenance and Repairs		2,320	306		123	2,749	
Supplies and Materials		41,191	1,448		854	43,493	
Equipment not Capitalized		1,406	439		152	1,997	
Insurance Claims and Indemnities		689	7		-	696	
Depreciation, Amortization, and Loss on Asset Dispositions		90,347	22,293		818	113,458	
Subtotal Direct Costs	\$	2,649,570	\$ 278,221	\$	54,593	\$ 2,982,384	
Allocated Costs							
Automation	\$	262,787	\$ 37,386	\$	3,823	\$ 303,996	
Resource Management		276,991	56,399		7,667	341,057	
Subtotal Allocated Costs	\$	539,778	\$ 93,785	\$	11,490	\$ 645,053	
Total Program Costs	\$	3,189,348	\$ 372,006	\$	66,083	\$ 3,627,437	

NOTE 16: Program Costs by Strategic Goal (continued)

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Z	u	Z	u

		2020										
(Dollars in Thousands)	Patent		Trademark			Intellectual Property Protection	Total					
Direct Costs												
Personnel Services and Benefits	\$	2,045,057	\$	203,939	\$	31,238	\$	2,280,234				
Travel and Transportation		616		74		671		1,361				
Rent, Communications, and Utilities	6	73,996		9,285		3,466		86,747				
Printing and Reproduction		162,525		44		4		162,573				
Contractual Services		222,657		25,736		14,069		262,462				
Training		2,631		249		74		2,954				
Maintenance and Repairs		2,658		891		92		3,641				
Supplies and Materials		40,739		1,561		754		43,054				
Equipment not Capitalized		5,535		913		208		6,656				
Insurance Claims and Indemnities		29		-		-		29				
Depreciation, Amortization, and Loss on Asset Dispositions		114,062		24,996		631		139,689				
Subtotal Direct Costs	\$	2,670,505	\$	267,688	\$	51,207	\$	2,989,400				
Allocated Costs												
Automation	\$	263,928	\$	47,189	\$	4,457	\$	315,574				
Resource Management		264,962		45,600		7,433		317,995				
Subtotal Allocated Costs	\$	528,890	\$	92,789	\$	11,890	\$	633,569				
Total Program Costs	\$	3,199,395	\$	360,477	\$	63,097	\$	3,622,969				

Budgetary Resources

Total budgetary resources are primarily comprised of Congressional authority to spend current year fee collections. The USPTO receives an apportionment of Category A funds from OMB, which apportions budgetary resources by fiscal quarter. The USPTO does not receive any Category B funds, or those exempt from apportionment.

For FY 2021, the USPTO was appropriated up to \$3,695,295 thousand for fees collected during the fiscal year. For the year ended September 30, 2021, the USPTO collected \$96,340 thousand less than the amount appropriated and apportioned through September 30, 2021 (under-collections of fees of \$70,333 thousand and net under-collections of other budgetary resources of \$26,007 thousand).

For FY 2020, the USPTO was appropriated up to \$3,450,681 thousand for fees collected during the fiscal year. For the year ended September 30, 2020, the USPTO collected \$232,382 thousand more than the amount appropriated and apportioned through September 30, 2020 (over-collections of fees of \$231,883 thousand and net over-collections of other budgetary resources of \$499 thousand); excess fee collections of \$231,883 thousand were deposited into the Patent and Trademark Fee Reserve Fund and remained available until expended subject to Congressional reprogramming requirements. The \$231,883 thousand was subsequently approved for spending by Congress on March 1, 2021.

Total budgetary resources also include carryover of prior year budgetary resources (operating reserve). Carryover is derived from year-end budgetary resources that have not been obligated. Usage of the fees in the following fiscal year is for compensation and operational requirements on a first-in, first-out basis. For FY 2021, the carryover amount that was brought into the fiscal year from FY 2020 was \$744,641 thousand, comprised of \$512,758 thousand in operating reserves immediately available and \$231,883 thousand in the PTFRF subject to Congressional reprogramming. For FY 2020, the carryover amount that was brought into the fiscal year from FY 2019 was \$538,632 thousand, comprised of \$509,892 thousand in operating reserves immediately available and \$28,740 thousand in the PTFRF subject to Congressional reprogramming.

As of September 30, 2021 and 2020, reimbursable obligations incurred were \$3,722,450 thousand and \$3,515,554 thousand, respectively.

Funding Limitations

Pursuant to the Leahy-Smith America Invents Act (35 U.S.C. §42(c)), all fees available to the Director under section 31 of the Trademark Act of 1946 are used only for the processing of trademark registrations and for other activities, services, and materials relating to trademarks, as well as to cover a proportionate share of the administrative costs of the USPTO.

Pursuant to the Leahy-Smith America Invents Act (35 U.S.C. §42(c)), all fees available to the Director under sections 41, 42, and 376 of 35 U.S.C. are used only for the processing of patent applications and for other activities, services, and materials relating to patents, as well as to cover a proportionate share of the administrative costs of the USPTO.

Since FY 1992, the USPTO has not always been appropriated all of the fees that have been collected. The total temporarily unavailable fee collections pursuant to Public Law as of September 30, 2021 are \$1,171,348 thousand. Of this amount, certain USPTO collections of \$233,529 thousand were withheld in accordance with the OBRA of 1990, and deposited in a special fund receipt account at Treasury.

Pursuant to the Consolidated and Further Continuing Appropriations Act, 2013 (Pub. L. No. 113-6), the USPTO has sequestered funds of \$147,733 thousand (8.6% of fees collected starting March 1, 2013 through the end of the fiscal year). The sequestered funds, while included in the USPTO Salaries and Expenses Fund, are not available for spending without further Congressional action.

Budgetary Resources (continued)

Undelivered Orders

In addition to the future lease commitments discussed in Note 11, the USPTO is obligated for the purchase of goods and services that have been ordered, but not yet received.

As of September 30, 2021, reimbursable undelivered orders consisted of the following:

(Dollars in Thousands)	 Unpaid	 Paid	 Total
Intragovernmental	\$ 21,503	\$ 3,163	\$ 24,666
With the Public	513,525	29,029	542,554
Total Undelivered Orders	\$ 535,028	\$ 32,192	\$ 567,220

As of September 30, 2020, reimbursable undelivered orders consisted of the following:

(Dollars in Thousands)	 Unpaid	 Paid	 Total
Intragovernmental	\$ 26,763	\$ 4,050	\$ 30,813
With the Public	421,904	21,163	443,067
Total Undelivered Orders	\$ 448,667	\$ 25,213	\$ 473,880

Explanation of Differences between the Statement of Budgetary Resources (SBR) and the Budget of the U.S. Government

A comparison was performed between the amounts reported in the FY 2020 SBR and the actual FY 2020 amounts reported in the FY 2022 Budget of the U.S. government for SBR lines *Total Budgetary Resources; New Obligations; and Net Outlays (discretionary)*. There were no material differences identified. The President's Budget that will report actual amounts for FY 2021 has not yet been published, and will be made available on OMB's President's Budget webpage.

NOTE 18:

Incidental Custodial Collections

Custodial collections represent miscellaneous general fund receipts of \$324 thousand and \$321 thousand for the years ended September 30, 2021 and 2020, respectively, and includes non-electronic patent filing fees, gains on foreign exchange rates, and employee debt finance charges. For the years ended September 30, 2021 and 2020, all collections were transferred to Treasury. Custodial collection activities are considered immaterial and incidental to the mission of the USPTO.

Fiduciary Activities

Fiduciary activities are the collection or receipt, and the management, protection, accounting, and disposition by the federal government of cash or other assets in which non-federal individuals or entities have an ownership interest that the federal government must uphold. Fiduciary cash and other assets are not assets of the federal government and accordingly are not recognized on the proprietary financial statements.

The Patent Cooperation Treaty authorized the USPTO to collect patent filing and search fees on behalf of the WIPO, European Patent Office, Korean Intellectual Property Office, Russian Intellectual Property Organization, Australian Patent Office, Israeli Patent Office, Japanese Patent Office, and Intellectual Property Office of Singapore from U.S. citizens requesting an international patent. The Madrid Protocol Implementation Act authorized the USPTO to collect trademark application fees on behalf of the International Bureau of the WIPO from U.S. citizens requesting an international trademark.

(Dollars in Thousands)		Patent ration Treaty		Madrid Protocol	Total Fiduciary Funds		
Schedule of Fiduciary Activity							
For the Year Ended September 30, 2021	đ.	14 226	đ	2.070	d	17.207	
Fiduciary Net Assets, Beginning of Year	\$	14,236	\$	3,070	\$	17,306	
Contributions		164,613		42,131		206,744	
Disbursements To and on Behalf of Beneficiaries		(162,290)		(44,237)		(206,527)	
Increase/(Decrease) in Fiduciary Net Assets		2,323		(2,106)		217	
Fiduciary Net Assets, End of Year	\$	16,559	\$	964	\$	17,523	
(Dollars in Thousands)	-	Patent ration Treaty		Madrid Protocol	Fidu	Total ciary Funds	
Fiduciary Net Assets as of September 30, 2021							
Cash and Cash Equivalents	\$	16,559	\$	964	\$	17,523	
Total Fiduciary Net Assets	\$	16,559	\$	964	\$	17,523	
(Dollars in Thousands)		Patent ration Treaty		Madrid Protocol	Fidu	Total ciary Funds	
Schedule of Fiduciary Activity							
For the Year Ended September 30, 2020							
Fiduciary Net Assets, Beginning of Year	\$	12,912	\$				
= − − − − − − − − − − − − − − − − − − −		12,712	Ψ	2,185	\$	15,097	
Contributions		153,017	Ψ	2,185 34,048	\$	15,097 187,065	
Contributions Disbursements To and on Behalf of Beneficiaries		,		•	\$		
		153,017		34,048	\$ 	187,065	
Disbursements To and on Behalf of Beneficiaries	\$	153,017	\$	34,048 (33,163)	\$	187,065 (184,856)	
Disbursements To and on Behalf of Beneficiaries Increase in Fiduciary Net Assets	1	153,017 (151,693) 1,324	\$	34,048 (33,163) 885	\$	187,065 (184,856) 2,209	
Disbursements To and on Behalf of Beneficiaries Increase in Fiduciary Net Assets Fiduciary Net Assets, End of Year	1	153,017 (151,693) 1,324 14,236	\$	34,048 (33,163) 885 3,070	\$	187,065 (184,856) 2,209 17,306	
Disbursements To and on Behalf of Beneficiaries Increase in Fiduciary Net Assets Fiduciary Net Assets, End of Year (Dollars in Thousands)	1	153,017 (151,693) 1,324 14,236	\$	34,048 (33,163) 885 3,070	\$	187,065 (184,856) 2,209 17,306	

NOTE 20:

Reconciliation of Net Cost to Net Outlays

Most entity transactions are recorded in both budgetary and proprietary accounts. However, because different accounting guidelines are used for budgetary and proprietary accounting, some transactions may appear in only one set of accounts. The reconciliation of net outlays, presented on a budgetary basis, and the net cost, presented on an accrual basis, provides an explanation of the relationship between budgetary and financial accounting information. This reconciliation serves not only to identify costs paid for in the past and those that will be paid in the future, but also to assure integrity between budgetary and financial accounting. The analysis below illustrates this reconciliation by listing the key differences between net cost and net outlays. Net Outlays is composed of Gross Outlays less Offsetting Collections. The second section reverses out items included in Net Cost that are not part of Net Outlays. The third section adds items included in Net Outlays that are not part of Net Cost. Items that do not have a budgetary impact as of the Balance Sheet date, such as the undeposited checks for fees that were not processed, or items that have a budgetary impact without a corresponding cost impact, such as accrued asset amounts (see Note 5), are not included in this reconciliation.

For the years ended September 30, 2021 and 2020, the reconciliation of net cost to net outlays is as follows:

	2021									
(Dollars in Thousands)	Intrag	overnmental	Wit	th the Public		Total				
NET COST/(INCOME) FROM OPERATIONS	\$	804,354	\$	(561,380)	\$	242,974				
COMPONENTS OF NET COST THAT ARE NOT PART OF NET OUTLAYS:		_								
Property, Plant, and Equipment Depreciation Property, Plant, and Equipment Disposal		-		(171,585)		(171,585)				
and Revaluation		-		(722)		(722)				
Increase/(Decrease) in Assets: Accounts Receivable		-		6		6				
Cash and Other Monetary Assets		-		(21,428)		(21,428)				
Advances and Prepayments (Increase)/Decrease in Liabilities:		(887)		7,866		6,979				
Accounts Payable		(1,382)		(9,822)		(11,204)				
Benefit Program Contributions Payable		(3,147)		-		(3,147)				
Federal Employee Benefits Payable		-		677		677				
Advances from Others and Deferred Revenue Other Liabilities:		-		(217,262)		(217,262)				
Accrued Payroll		-		(16,453)		(16,453)				
Annual Leave		-		2,238		2,238				
Contingent Liability		-		(115)		(115)				
Other Financing Sources:										
Federal Employee Retirement Benefit Costs		(0.102)				(0.103)				
Paid by OPM and Imputed to the Agency		(8,192)		-		(8,192)				
Other Imputed Financing		(40,448)		-		(40,448)				
Total Components of Net Cost That Are Not Part of Net Outlays		(54,056)		(426,600)		(480,656)				
COMPONENTS OF NET OUTLAYS THAT ARE NOT PART OF NET COST:										
Acquisition of Capital Assets		1,853		163,307		165,160				
Transfers In Without Reimbursements		(3,119)		<u>-</u>		(3,119)				
Total Components of Net Outlays That Are Not Part of Net Cost		(1,266)		163,307		162,041				
NET OUTLAYS	\$	749,032	\$	(824,673)	\$	(75,641)				

NOTE 20:Reconciliation of Net Cost to Net Outlays *(continued)*

	2020									
(Dollars in Thousands)	Intrag	governmental	Wit	th the Public		Total				
NET COST/(INCOME) FROM OPERATIONS	\$	743,684	\$	(777,766)	\$	(34,082)				
COMPONENTS OF NET COST THAT ARE NOT PART OF NET OUTLAYS:										
Property, Plant, and Equipment Depreciation		-		(205,944)		(205,944)				
Property, Plant, and Equipment Disposal and Revaluation		-		(797)		(797)				
Increase/(Decrease) in Assets:										
Accounts Receivable		(72)		130		58				
Cash and Other Monetary Assets		-		20,964		20,964				
Advances and Prepayments		126		1,161		1,287				
(Increase)/Decrease in Liabilities:										
Accounts Payable		322		2,405		2,727				
Benefit Program Contributions Payable		(6,317)		-		(6,317)				
Federal Employee Benefits Payable		-		1,859		1,859				
Advances from Others and Deferred Revenue		-		(48,156)		(48,156)				
Other Liabilities:										
Accrued Payroll		-		(20,432)		(20,432)				
Annual Leave		-		(32,188)		(32,188)				
Other Financing Sources:										
Federal Employee Retirement Benefit Costs Paid by OPM and Imputed to the Agency		1,757		-		1,757				
Other Imputed Financing		(30,005)		-		(30,005)				
Total Components of Net Cost That Are Not Part of Net Outlays		(34,189)		(280,998)		(315,187)				
COMPONENTS OF NET OUTLAYS THAT ARE NOT PART OF NET COST:										
Acquisition of Capital Assets		4,888		79,176		84,064				
Total Components of Net Outlays That Are Not Part of Net Cost		4,888		79,176		84,064				
NET OUTLAYS	\$	714,383	\$	(979,588)	\$	(265,205)				
			-		-					

COVID-19 Activity

The USPTO did not have a significant amount of budgetary activity in FY 2021 or FY 2020 associated with responding to COVID-19 and the economic consequences thereof.

REQUIRED SUPPLEMENTARY INFORMATION

Combining Schedule of Budgetary Resources by Major Budget Account

The following table illustrates the USPTO's FY 2021 budgetary resources by major budget account.

(Dollars in Thousands)	_	alaries and penses Fund	Tra	atent and demark Fee serve Fund	 Combining Total
BUDGETARY RESOURCES					
Unobligated Balance, Brought Forward	\$	512,758	\$	231,883	\$ 744,641
Recoveries of Prior Year Obligations		34,028		-	34,028
Unobligated Balance from Prior Year Budget Authority, Net (discretionary)		546,786		231,883	778,669
Spending Authority from Offsetting Collections					
(discretionary)		3,859,310		(231,883)	 3,627,427
Total Budgetary Resources	\$	4,406,096	\$		\$ 4,406,096
STATUS OF BUDGETARY RESOURCES					
New Obligations	\$	3,722,450		-	\$ 3,722,450
Unobligated Balance, End of Year:					
Apportioned		683,646		-	683,646
Total Status of Budgetary Resources	\$	4,406,096	\$	_	\$ 4,406,096
OUTLAYS, NET					
Net Collections (discretionary)	\$	(75,641)	\$		\$ (75,641)

The accompanying notes are an integral part of these financial statements.

Deferred Maintenance and Repairs

Deferred maintenance and repairs (DM&R) are maintenance and repairs that were not performed when they should have been, that were scheduled and not performed, or that were delayed for a future period. Maintenance and repairs are activities directed towards keeping Property, Plant, and Equipment (PP&E) in acceptable operating condition. These activities include preventive maintenance, normal repairs, replacement of parts and structural components, and other activities needed to preserve the asset so that it can deliver acceptable performance and achieve its expected life. Maintenance and repairs exclude activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than, those originally intended.

PP&E at the USPTO consist of furniture and fixtures, IT equipment, office and telecommunication equipment, leasehold improvements, and software. It is entity policy to ensure that all PP&E, regardless of recorded value, is maintained, preserved, and managed in a safe and effective manner. The USPTO conducts periodic user feedback meetings to evaluate the effectiveness of training, operations, maintenance, facilities, continuity of operations, and supporting documentation of automated systems. The USPTO prioritizes maintenance and repair projects to sustain its PP&E in good operating condition, including maintaining warranties. Funds are used to replace equipment on a regular cycle in order to keep operations and maintenance costs stable and low. Accordingly, DM&R do not arise for PP&E at the USPTO, and no periodic assessment is performed.

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November 12, 2021

MEMORANDUM FOR: Andrew Hirshfeld

Performing the functions and duties of the Under Secretary of Commerce for Intellectual Property and Director of the

United States Patent and Trademark Office

FROM: Richard Bachman

Assistant Inspector General for Audit and Evaluation

SUBJECT: United States Patent and Trademark Office FY 2021

Financial Statements

Final Report No. OIG-22-006-A

I am pleased to provide you with the attached audit report, which presents an unmodified opinion on the United States Patent and Trademark Office's (USPTO's) fiscal year 2021 financial statements. KPMG LLP—an independent public accounting firm—performed the audit in accordance with U.S. generally accepted auditing standards, standards applicable to financial audits contained in *Government Auditing Standards*, and Office of Management and Budget Bulletin No. 21-04, *Audit Requirements for Federal Financial Statements*.

In its audit of USPTO, KPMG

- determined that the financial statements were fairly presented, in all material respects, and in accordance with U.S. generally accepted accounting principles;
- identified no material weaknesses in internal control over financial reporting; and
- identified no instances of reportable noncompliance with applicable laws, regulations, contracts, and grant agreements.

KPMG is solely responsible for the attached audit report and the conclusions expressed in it. We do not express any opinion on USPTO's financial statements, any conclusions about the effectiveness of internal control over financial reporting, or any conclusions on compliance with applicable laws, regulations, contracts, and grant agreements.

This report will appear on our website pursuant to sections 4 and 8M of the Inspector General Act of 1978, as amended (5 U.S.C. App., §§ 4 & 8M).

We would like to thank USPTO's staff and management for its cooperation and courtesies extended to KPMG and my office during this audit.

Attachment



KPMG LLP Suite 12000 1801 K Street, NW Washington, DC 20006

Independent Auditors' Report

Inspector General, U.S. Department of Commerce, and Performing the functions and duties of the Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office:

Report on the Financial Statements

We have audited the accompanying financial statements of the United States Patent and Trademark Office (USPTO), which comprise the balance sheets as of September 30, 2021 and 2020, and the related statements of net cost and changes in net position, and combined statements of budgetary resources for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America, in accordance with the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, and in accordance with Office of Management and Budget (OMB) Bulletin No. 21-04, *Audit Requirements for Federal Financial Statements*. Those standards and OMB Bulletin No. 21-04 require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the USPTO as of September 30, 2021 and 2020, and its net costs, changes in net position, budgetary resources for the years then ended in accordance with U.S. generally accepted accounting principles.



Other Matters

Interactive Data

Management has elected to reference to information on websites or other forms of interactive data outside the Performance and Accountability Report to provide additional information for the users of its financial statements. Such information is not a required part of the basic financial statements or supplementary information required by the Federal Accounting Standards Advisory Board. The information on these websites or the other interactive data has not been subjected to any of our auditing procedures, and accordingly we do not express an opinion or provide any assurance on it.

Required Supplementary Information

U.S. generally accepted accounting principles require that the information in the Management's Discussion and Analysis and Required Supplementary Information sections be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Federal Accounting Standards Advisory Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The Financial and Related Highlights, Performance Highlights, the Message, Introduction, Performance Information, Message from the Chief Financial Officer, Other Information, Glossary of Acronyms and Abbreviations, and Index of URLs sections are presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audits of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements as of and for the year ended September 30, 2021, we considered the USPTO's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the USPTO's internal control. Accordingly, we do not express an opinion on the effectiveness of the USPTO's internal control. We did not test all internal controls relevant to operating objectives as broadly defined by the Federal Managers' Financial Integrity Act of 1982.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.



Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the USPTO's financial statements as of and for the year ended September 30, 2021 are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards* or OMB Bulletin No. 21-04.

Purpose of the Other Reporting Required by Government Auditing Standards

The purpose of the communication described in the Other Reporting Required by *Government Auditing Standards* section is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the USPTO's internal control or compliance. Accordingly, this communication is not suitable for any other purpose.



Washington, District of Columbia November 5, 2021



SUMMARY OF FINANCIAL STATEMENT AUDIT AND MANAGEMENT ASSURANCES

TABLE 23: SUMMARY OF FINANCIAL STATEMENT AUDIT

Audit Opinion		Unmodified					
Restatement			No				
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated	Ending Balance		
NONE	0	0	0	0	0		
Total Material Weaknesses	0	0	0	0	0		

TABLE 24: SUMMARY OF MANAGEMENT ASSURANCES

	Effectiveness of Interna	al Control ove	er Financial Rep	porting (FMFI	A § 2)		
Statement of Assurance			Uni	modified			
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated		Reassessed	Ending Balance
NONE	0	0	0	0		0	0
Total Material Weaknesses	0	0	0	0		0	0
	Effectiveness of Int	ernal Contro	l over Operatio	ons (FMFIA § 2	2)		
Statement of Assurance	Statement of Assurance Unmodified						
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated		Reassessed	Ending Balance
NONE	0	0	0	0		0	0
Total Material Weaknesses	0	0	0	0		0	0
Con	formance with Financia	al Manageme	ent System Req	uirements (FN	ΛFIA § 4)		
Statement of Assurance	Sy	stems confo	rm to financial	management s	system requ	uirements	
Non-Conformances	Beginning Balance	New	Resolved	Consolid	lated	Reassessed	Ending Balance
NONE	0	0	0	0		0	0
Total Non-Conformances	0	0	0	0		0	0
	Compliance	e with Section	n 803(a) of the	FFMIA			
			Agency			Auditor	
1. Federal Financial Management Sy	ystem Requirements	No lack of compliance noted			No lack of compliance noted		
2. Applicable Federal Accounting S	tandards	No lack of compliance noted			No lack of compliance noted		
3. U.S. Standard General Ledger at	Transaction Level	No lac	k of compliance	noted	No la	ack of complianc	e noted

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MANAGEMENT AND PERFORMANCE CHALLENGES

The USPTO is responsible for resolving the sixth Departmental management challenge — Meeting Intellectual Property Stakeholder Needs in the Midst of Economic, Technological, and Legal Changes. The USPTO is also responsible for continuing to improve its own cybersecurity posture and for preparing its own acquisition workforce to administer and monitor USPTO resources in support of resolving the first and third Department-wide management challenges.



INFORMATION MEMORANDUM FOR SECRETARY RAIMONDO

FROM: Peggy E. Gustafson, Inspector General, (202) 482-4661

DATE: October 14, 2021

CC: Don Graves, Deputy Secretary of Commerce

Zachary Schwartz, Chief of Staff

André Mendes, Chief Information Officer

Wynn Coggins, Acting Chief Financial Officer and Assistant Secretary for

Administration

Operating Unit Heads

Operating Unit Audit Liaisons

RE: Top Management and Performance Challenges Facing the Department

of Commerce in Fiscal Year 2022 Final Report No. OIG-22-001

The Office of Inspector General (OIG) is required by statute¹ to report annually the most serious management and performance challenges facing the U.S. Department of Commerce (the Department). Attached is our final report on the Department's top management and performance challenges for fiscal year 2022.

For each challenge identified within this memorandum, please find brief descriptions of the issues discussed in greater detail in the report.

Challenge 1: Improving the Department's Cybersecurity Resiliency

- Improving the Department's capability to respond to emerging cyber threats
- Maturing the information technology (IT) security program
- Fulfilling the President's executive order on improving the nation's cybersecurity

Challenge 2: Maintaining Continuity, Managing Risks, and Leveraging Investments to Improve Satellite Data, Products, and Services

- Managing technical challenges with polar and geostationary satellites
- Planning and implementing next-generation satellite systems to continue observations and meet future needs

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^{1 31} U.S.C. § 3516(d).

- Addressing risks to observations, operations, and communications from frequency interference
- Initiating a space traffic management pilot program
- Leveraging investments for cost-effective weather data, products, and services to protect communities and increase resilience to climate change

Challenge 3: Addressing Departmental Management Matters Involving Acquisitions and Grants

- Ensuring prudent financial management and oversight of pandemic and disaster relief funding
- Improving management and oversight of high dollar/high risk contract portfolios, contract execution, and performance
- Improving the management of IT acquisitions and operations
- Ensuring proper contract and grant file maintenance in virtual and other flexible work environments
- Developing and retaining a competent acquisition workforce to support the Department's mission

Challenge 4: Enhancing Capacity to Enforce Fair and Secure Trade

- Combating unfair trade practices by effectively resolving trade barriers and enforcing U.S. trade agreements
- Protecting national security through effective enforcement of export controls

Challenge 5: Establishing a Strong Framework for Designing the 2030 Census and Improving Operations over Surveys and Employee Background Investigations

- Ensuring data collection is high quality
- Ensuring advertising efforts increase response rates
- Ensuring only candidates suitable for federal government employment are hired

Challenge 6: Meeting Intellectual Property Stakeholder Needs in the Midst of Economic, Technological, and Legal Changes

- Improving efficiency, quality, and timeliness of patent decisions
- Ensuring proper use of the trademark system
- Managing performance of mission-critical services

Challenge 7: Deploying a Nationwide Public Safety Broadband Network

- Ensuring a sound reinvestment process
- Ensuring the successful performance of the contract

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identified the The final ver	We remain committed to keeping the Department's decision-makers informed of problems dentified through our audits and investigations so that timely corrective actions can be taken. The final version of the report will be included in the Department's <i>Annual Financial Report</i> , as equired by law. ²				
with you and	te the cooperation received from the Department, and we look forward to working I the Secretarial Officers in the coming months. If you have any questions his report, please contact me at (202) 482-4661.				
² Ibid.					
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PAYMENT INTEGRITY INFORMATION ACT REPORTING

The Payment Integrity Information Act of 2019 (PIIA) requires agencies to periodically review all programs and activities and identify those that may be susceptible to significant improper payments, take multiple actions when programs and activities are identified as susceptible to significant improper payments, and annually report information on their improper payments monitoring and minimization efforts. OMB Circular A-123, **Appendix C, Requirements for Payment Integrity Improvement**, provides guidance to agencies to comply with PIIA and for agency improper payments efforts. The USPTO has not identified any programs or activities susceptible to significant improper payments or any significant problems with improper payments.

The USPTO recognizes the importance of maintaining adequate internal controls to ensure the accuracy and integrity of payments made by the agency, and the USPTO maintains a strong commitment to continuous improvement in the overall disbursement management process. For FY 2021 and beyond, the USPTO will continue its efforts to ensure the integrity of its disbursements.

RISK ASSESSMENT

A review of all programs and activities that the USPTO administers is performed annually to assist in identifying, reporting, and preventing erroneous or improper payments. This review was completed in FY 2021.

The USPTO annually conducts an assessment of the effectiveness of internal control over financial reporting, in compliance with OMB Circular A-123, Management's Responsibility for Enterprise Risk Management and Internal Control. Furthermore, every three years, the assessment includes a review of internal controls over disbursement processes. The most recent review performed in FY 2021 indicated that current internal controls over disbursement processes were sound.

The USPTO completes an annual improper payments risk assessment covering all of its programs and activities as required by OMB Circular A-123, Appendix C. These improper payments risk assessments also include assessments of the control and procurement environment.

The results of the USPTO assessments revealed no programs that were susceptible to risk and demonstrated that, overall, the USPTO has strong internal controls over disbursement processes, the amount of improper payments by the USPTO is immaterial, and the risk of improper payments is low.

STATISTICAL SAMPLING

As the USPTO does not have any programs or activities that are susceptible to significant improper payments, the USPTO has not conducted a statistical sample to estimate the improper payments rate for USPTO programs and activities.

IMPROPER PAYMENTS REPORTING, ROOT CAUSES, AND CORRECTIVE ACTIONS

During FY 2021, the improper payments for all USPTO programs and activities amounted to \$0.5 million, or 0.01% of total outlays. As the USPTO does not have any programs or activities that are susceptible to significant improper payments, an improper payments reduction outlook, root cause analyses, and corrective actions are not presented for USPTO programs and activities.

ACCOUNTABILITY

The USPTO has not identified any significant problems with improper payments. During FY 2021, the improper payments for all USPTO programs and activities did not exceed the statutory thresholds for increased reporting. The USPTO recognizes the importance of maintaining adequate internal controls to ensure proper payments, and its commitment to continuous improvement in disbursement management processes remains very strong. The USPTO's CFO has responsibility for establishing policies and procedures for assessing USPTO and program risks of improper payments, taking actions to reduce improper payments, and reporting the results of the actions to management for oversight and other actions as deemed appropriate. The CFO has designated the Deputy CFO to oversee initiatives related to reducing improper payments within the USPTO.

RECAPTURES OF IMPROPER PAYMENTS

PAYMENT RECAPTURE AUDITS

The USPTO does not currently conduct recapture audits, as prior recapture audit activity did not yield any meaningful results. As recapture audits were deemed not cost-effective for the USPTO, payment recapture rates, disposition of recaptured funds, and aging of outstanding overpayments are not presented for USPTO programs and activities.

OVERPAYMENTS RECAPTURED OUTSIDE OF PAYMENT RECAPTURE AUDITS

The following table summarizes the USPTO's overpayments identified and overpayments verified as recaptured through sources other than payment recapture audits that are reportable in the current fiscal year and that were reported in prior fiscal years. Prior fiscal years' amounts represent amounts reported for FY 2011 through FY 2020, as FY 2011 was the first fiscal year for this reporting requirement. Amounts recaptured for current year reporting include payment recaptures during FY 2021 of both improper payments reported in FY 2021 and improper payments reported in prior fiscal years.

TABLE 25:

Overpayments Reca	Overpayments Recaptured Outside of Recapture Audits (Dollars in Millions)											
		Current \	ear (CY)		Prior Ye	ars (PY))		Cumulative (CY + PY)		
Source of Overpayments	lde for F	mount entified Payment capture		nount aptured	Amount Amount Identified Recaptured for Payment Recapture		Aı Ide	nulative mount entified ecapture	Cumulative Amount Recaptured			
Post-Payment Reviews	\$	0.30	\$	0.12	\$	6.06	\$	5.76	\$	6.36	\$	5.88
Audits and Other Reviews		-		-		0.31		0.17		0.31		0.17
Reported by Vendors		-		-		5.49		5.48		5.49		5.48
Total	\$	0.30	\$	0.12	\$	11.86	\$	11.41	\$	12.16	\$	11.53

The USPTO continues to enhance its processes by identifying and implementing additional procedures to prevent and detect improper payments. In FY 2021, the USPTO continued its reporting procedures to senior management and to DOC on improper payments and payment recapture data, identifying the nature and magnitude of any improper payments, along with any necessary control enhancements to prevent further occurrences of the types of improper payments identified. The USPTO's analysis of the data reported reflects that improper payments were below 0.01% in FY 2021 and FY 2020. The USPTO has additionally reviewed all financial statement audit comments and results of other payment reviews for indications of breaches of disbursement controls. None of these audit comments or reviews have uncovered any significant problems with improper payments or the internal controls applied to disbursements.

The USPTO has improper payments monitoring and minimization efforts in place, including the identification of improper payments through post-payment reviews and contract closeout reviews. The agency seeks to identify overpayments and erroneous payments by reviewing credit memos and refund checks issued by vendors or customers and undelivered electronic payments returned by financial institutions. The USPTO also inquires monthly with business units about whether they, through the contract oversight process, identified any improper payments that occurred. In addition, the agency has implemented process improvements to minimize erroneous payments resulting from vendor payment assignments, which have historically been the source of the larger improper payments. A master file is now being kept for all assignments and is available to all payment technicians and approvers. Technicians and approvers are also reminded periodically to monitor assignments.

AGENCY REDUCTION OF IMPROPER PAYMENTS WITH THE DO NOT PAY INITIATIVE

The USPTO employs a periodic vendor record eligibility validation process using Do Not Pay Initiative databases to prevent improper payments. In addition, the USPTO has incorporated the following PIIA-listed Do Not Pay databases into existing business processes and programs:

- The Death Master File of the Social Security Administration
- GSA's Excluded Parties List System/System for Award Management
- OMB Circular A-123, Appendix C, Requirements for Payment Integrity Improvement

Furthermore, the USPTO employs a monthly batch process post-payment screening of an applicable subset of payments to identify any improper payments and to take any appropriate recovery or corrective and preventative actions. Also, the USPTO uses continuous monitoring of an applicable subset of active vendor records to ensure that vendors are not subject to payment and procurement restrictions. Results are used to better maintain vendor records to reduce or prevent improper payments and awards. During FY 2021, the validation processes using the Do Not Pay Initiative databases have not resulted in the identification or reduction of any improper payments or awards.

TABLE 26:

Results of the Do N	Results of the Do Not Pay Initiative in Preventing Improper Payments (dollars in millions)								
	Number of Payments Reviewed For Possible Improper Payments	Dollars of Payments Reviewed For Possible Improper Payments	Number of Payments Stopped	Value (\$) Of Payments Stopped	Number of Potential Improper Payments Reviewed and Determined Accurate	Dollars of Potential Improper Payments Reviewed and Determined Accurate			
Reviews with the PIIA Specified Databases	18,503	\$894.3	0	\$0	0	\$0			
Reviews with Other Databases Not Listed in PIIA	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable			

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FRAUD REDUCTION REPORT

The PIIA provides the requirement to improve federal agency financial and administrative controls and procedures to assess and mitigate fraud risks, and to improve federal agencies' development and use of data analytics to identify, prevent, and respond to fraud, including improper payments.

The USPTO considers the risk of fraudulent financial reporting and misappropriation of assets via internal controls and subsequent reviews. Procedures are in place to monitor internal controls on a consistent basis, including approvals, authorizations, verifications, reconciliations, performance reviews, security activities, and the production of records and documentation. Account access and restricted access to financial management systems and account access rights help to reduce the opportunity for fraudulent financial activities. In addition, segregation of duties ensures that roles are separated appropriately to prevent the likelihood of waste, abuse, fraudulent financial reporting, and misappropriation of assets.

Control activities occur at all levels of the organization and are reviewed annually to assess the risk of errors or irregularities due to fraud. The reviews performed for OMB Circular A-123 Appendix A test internal controls over financial reporting related to the reliability of financial statements, including a risk assessment performed at the beginning of the review and the use of a risk-based approach to test financial controls. Throughout the year, variance analyses are performed to identify trends and possible discrepancies that could indicate fraud or waste in order to investigate and correct the identified controls before the potential errors are included in the financial statements.

Within the federal government, payroll, large contracts, and purchase and travel cards have been identified as having an increased risk and vulnerability of fraud. Whistleblower and fraud, waste, and abuse complaints are received and reviewed by the OIG.

The USPTO implements controls to prevent the risk of time and attendance abuse or other types of misconduct and regularly takes appropriate steps to avoid and address any such misconduct. Valuable suggestions received from inside and outside the USPTO have been used to strengthen policies to increase time and attendance accountability. In the past, the agency has invested significant time and effort to improve the already extensive workforce measures aimed at preventing time and attendance abuse and continuing the USPTO's focus on accountability. The agency has a policy on time and attendance tools, communication, and collaboration. It gives employees clear guidance on time and attendance policies and automated tools that provide transparency to both managers and employees. All USPTO employees receive training on time and attendance requirements, as well as work schedules and leave policies, and will continue to receive similar training on an ongoing basis.

The USPTO has the authority to use any contract type that it deems to be in the best interest of meeting the agency's mission. Although the USPTO is not statutorily required to provide a written justification when using high-risk contract types, as a matter of good business practice, the agency has established the requirement for contracting officers to provide a rationale in the Acquisition File Documentation when a high-risk contract type has been selected. High-risk contract types include noncompetitive contracts, single offer contracts, cost-reimbursement contracts, time-and-material contracts, labor-hour contracts, incentive contracts, and indefinite-delivery contracts. As part of the rationale, contracting officers must

establish why it is in the best interest of the USPTO to use the high-risk contract type, the planned risk mitigation for using a high-risk contract vehicle, and what steps are being taken to avoid the use of high-risk contract types in the future. The risk mitigation included in the contract includes various mechanisms for frequent contract surveillance.

The USPTO continuously monitors and updates internal control measures and processes to manage its purchase card and travel card programs. This monitoring includes certifying that the appropriate policies and controls are in place and corrective actions have been taken to mitigate the risk of fraud and inappropriate charge card practices. In addition, the USPTO established new, monthly procedures for monitoring, reporting on, and managing travel card delinquencies and potential card misuse.

The USPTO also works to improve the development and use of data analytics for the purpose of identifying, preventing, and responding to fraud. Trademark applications worldwide continue to increase as entrepreneurs and businesses better recognize the value of acquiring and protecting IP. A trademark is an attractive asset, so there is an inherent risk of improper filings that seek to capitalize on that value. This risk threatens the integrity and quality of the examination and registration processes. The USPTO works diligently to identify, neutralize and more importantly, reduce such filings to improve the effectiveness of operations. In FY 2020, the USPTO identified and mitigated the impact of various threats by leveraging the capabilities of data analytics. The USPTO's capabilities in this field are rapidly increasing, with advanced analytical methodologies and greater data processing capacity. As part of a broader ERM framework that includes the implementation of mandatory electronic filings as of February 2020, these advances will allow the USPTO to continue its progress in addressing improper behavior to ensure the integrity and prestige of the Trademark Register. The USPTO has also begun to analyze patent filings for signs of improper activity.

CIVIL MONETARY PENALTY ADJUSTMENT FOR INFLATION

The Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, requires agencies to make regular and consistent inflationary adjustments of civil monetary penalties to maintain their deterrent effect. There were no civil monetary penalties assessed by the USPTO during FY 2021.

BIENNIAL REVIEW OF USER FEES

The Chief Financial Officers Act of 1990 requires a biennial review of agency fees, rents, and other charges imposed for services and things of value (e.g., rights or privileges) it provides to specific beneficiaries as opposed to the American public in general. The objective of the review is to identify such activities and to begin charging fees, where permitted by law; and to periodically adjust existing fees to reflect current costs or market value so as to minimize the general taxpayer subsidy of specialized services or things of value provided directly to identifiable non-federal beneficiaries.

The USPTO is a fully fee-funded agency; the services provides are not subsidized by general taxpayer revenue. The USPTO uses activity-based costing to calculate the cost of activities performed for each fee, and it uses this information to evaluate and inform the setting of fees. When appropriate, fees are adjusted to be consistent with legislative requirements to recover the full cost of the goods or services provided to the public.

Consistent with the provisions of the Chief Financial Officers Act, the USPTO assesses fees on at least a biennial basis. On October 2, 2020, the USPTO implemented adjustments to most patent-related fees, as described in the rulemaking (Setting and Adjusting Patent Fees During Fiscal Year 2020) published on August 3, 2020. This rulemaking effort began with the FY 2017 comprehensive fee review, which incorporated a thorough evaluation of the existing fee schedule, as well as significant research and analysis on potential revisions to the schedule. The USPTO developed an initial patent fee proposal intended to promote the efficiency of operations, better align fees with costs, and ensure adequate revenue to deliver on agency goals. The proposal was shared with the PPAC and the public, and on September 6, 2018, a public hearing was conducted to present the proposal and to gather public input. A notice of proposed rulemaking was published for public comments on July 31, 2019. At each stage, comments from the IP stakeholder community were reviewed and considered as the agency moved forward with patent-related fee adjustments that best served the U.S. IP system.

At the same time in FY 2019, the USPTO conducted its subsequent biennial fee review. Through this review of trademark fees, it was determined that the existing trademark fee schedule was no longer sufficient, given changing trends in how customers were engaging with the trademark system. In accordance with the process established by the AIA, on August 28, 2019, the USPTO submitted to the TPAC and the public a proposal to rebalance trademark fees in line with the current IP environment. The TPAC held a public hearing to gather feedback on the USPTO's proposal on September 23, 2019, and the USPTO published for public comment a notice of proposed rulemaking to adjust trademark-related fees on June 19, 2020. After considering public comments and making necessary adjustments, a final rule adjusting trademark fees was published on November 17, 2020, and became effective on January 2, 2021.

In keeping with the biennial review schedule, the USPTO initiated its latest biennial review of user fees in 2021 to ensure that the recently set patent and trademark fees continue to meet the current and future needs of the IP environment—particularly given the rapid changes in the global economic and policy landscape over the last two years. If it is determined that certain adjustments to the patent fee structure are necessary to preserve an optimal balance of customers, public, and USPTO needs, then preliminary fee change proposals will be introduced in FY 2022 with multiple opportunities for public dialogue and input.

OTHER ADMINISTRATIVE UPDATES

OPTIMIZING THE WORKSPACE TO MEET WORKFORCE NEEDS

USPTO FACILITY AND LEASE ENHANCEMENTS

The USPTO completed a multiyear renovation project to enhance the heating, cooling, fire suppression, and electrical systems that serve and protect the data center. The improvements include the installation of a new independent chiller system and backup generator; redesign and reconfiguration of the data center's server configuration; and conversion to a pre action, dry fire suppression system, as well as general improvements to all the necessary infrastructure involving independent systems separate from the current base building systems.

In an effort to "reduce the footprint," the USPTO returned the leased space at Carlyle Place in Alexandria, Virginia, to the General Services Administration (GSA) in March 2021, saving the USPTO 55,159 real square feet, with an annual rent savings of approximately \$2.1 million. In addition to saving the agency money, such efforts to reduce the USPTO's physical footprint also help to reduce the environmental impact of the agency's operations.

To make its staff and buildings more secure, the USPTO constructed bollards at building entrances at its Virginia campus. Additionally, security guard desks were upgraded with a ballistic shield to provide protection for security officers. Both projects were completed in FY 2021.

The USPTO has continued to take proactive actions with respect to the COVID-19 pandemic, including increasing the frequency of cleaning all high-touch areas throughout USPTO spaces, such as interior common areas, public areas, restrooms, pantries, service centers, public-facing special spaces, doors, and elevator buttons. Hand sanitizer dispensers and sanitizing wipes are available at all elevator lobby locations.

ENERGY AND ENVIRONMENTAL IMPACT

The USPTO supports the Energy Policy Act of 2005 statutory requirement regarding the clean energy goal to purchase at least 7.5% of total electricity consumption from renewable sources. In FY 2021, the USPTO purchased 6,600 megawatt-hours (MWhs) of RECs (renewable energy certificates, 1 REC = 1 MWh), which was over 10% of the USPTO's annual energy consumption in FY 2020.

The USPTO's Alexandria campus reduced energy consumption by 9.8% in FY 2021 and earned the Environmental Protection Agency's ENERGY STAR certification in 2021 for the ninth consecutive year. The award was issued to LCOR, the building lessor. In the first six months of FY 2021, electricity and gas use was down by 2,494,599 kilowatt-hours (kWh) or 7.6%, compared to the same period in FY 2020.

To further improve the facility's energy efficiency, the USPTO continues to engage with LCOR to make energy efficiency improvements to reduce overall energy consumption. A notable energy reduction measure started in FY 2020 and completed in FY 2021 was the replacement of existing 25-watt T-8 fluorescent lamps with 12-watt light-emitting diode (LED) lamps. Each lamp replacement resulted in a 51-watt savings per fixture, extended the lamp life by 20,000 hours,

and reduced labor replacement costs. In total, over 34,000 LED lamps were installed in FY 2020 and FY 2021 throughout four main campus office buildings, and 87 LED lamps were installed in the auditorium, resulting in an energy reduction of 3,100,994 kWh, or 4.7% of overall energy consumption. Altogether, these initiatives will save energy, reduce costs, and help to reduce greenhouse gas emissions.

In FY 2021, the USPTO converted all five vehicles in its fleet to GSA E85 fuelefficient and hybrid vehicles. These vehicles are advantageous to the environment because they produce cleaner energy, reduce emissions, and consume less fuel.

The USPTO's teleworking employees also contribute significantly to reducing commuting emissions, saving fuel, and reducing local road congestion. Prior to the implementation of mandatory telework due to the pandemic, 87% of positions agency-wide teleworked, resulting in a reduction of 42,000 tons of collective emissions. The USPTO has operated under a framework of mandatory or maximum telework since March 2020, with an average of 92% of agency employees teleworking on any given day. This resulted in nearly 75,000 tons of collective emissions reduction.

The USPTO achieved 35% waste diversion from the Alexandria campus, with zero trash to the landfill in FY 2021. In addition to recycling cans, plastic containers, paper, and toner cartridges, the agency recycles or donates used furniture and electronics for reuse by other agencies or schools. The USPTO has also transferred 656 tons of nonhazardous solid waste to the Eisenhower Avenue Energy-from-Waste Facility, which converts all waste into renewable energy.

OPTIMIZING RESOURCES

The USPTO tracks nearly 125,000 assets via the Asset Management Program. The assets include laptops, desktops, audio and visual equipment, photocopiers, switches, tablets, printers, routers, servers, and televisions. Due to several technical enhancements and process changes, the workload of USPTO property custodians has been reduced by 80%, resulting in the redirection of hundreds of hours of effort to other mission needs. Examples of improvements to the quarterly process of verifying each trackable asset include:

- Increasing the radio frequency electronic identification rate to over 80% (in most cases reducing the time required for property custodians to locate assets)
- Reducing the number of property custodians for the USPTO from 807 to 320
- Decreasing the number of certification inventories for campus assets required per year from four to two
- Allowing the radio frequency identification technology and cybersecurity discovery tools to "see" and update assets as "verified" in the ITSM BMC Remedy Asset Management System
- Updating the property custodian reports to only generate assets that have not been seen by the radio frequency identification technology and cybersecurity discovery tools, which reduces the amount of assets property custodians are required to verify during certification

The USPTO is also collaborating with GSA to interface the USPTO asset The USPTO is also collaborating with GSA to interface the USPTO asset management tracking system with the GSAXcess system, for the disposal of excess or surplus property. The process will allow the electronic transfer of excess or surplus property from the USPTO asset system to the GSAXcess system.

Property disposed of through the GSAXcess system is transferred to other government agencies, donated to schools, sold to the public through auctions, or recycled. The ultimate goal is to promote reuse, thereby preserving the environment, protecting natural resources, and generating revenue. In FY 2021, the USPTO recovered \$36,001 through a GSA auction from the sale of surplus items.

To keep up with fast-changing copier technology, the USPTO transitioned its value-added graphic document management delivery program strategy from buying to leasing, thus enabling the agency to meet user needs in a streamlined, efficient, and cost-effective manner. The leasing of copiers will significantly reduce overhead costs, simplify operations, and provide better service.

The USPTO also consolidated the procurement for TEAP supplies, enabling the agency to standardize the processes and to take advantage of cost savings resulting from economies of scale, time savings, discounts from volume purchases, reductions in unit cost, and transaction cost savings from volume delivery. Putting in place a just-in-time fulfillment contractual agreement eliminated inventory and minimized hours for the operation, saving over \$100,000.

In support of the USPTO strategy of reducing its footprint, the agency vacated rooms 32 and 42 at the Boyers, Pennsylvania, lease facility. The USPTO also synchronized the relocation of 8.5 pallets of plant patents and 26 pallets of trademark documents to Randolph Square, in Arlington, Virginia, and the National Archives and Records Administration in Suitland, Maryland, respectively. Additionally, the agency also facilitated the destruction of 337 pallets of documents and 40 pallets of microfilm/microfiche with a Certificate of Destruction, as per the National Association of Information Destruction requirements. The USPTO harmonized the disposal of 112 barcoded and 696 non-barcoded assets and recycled 156.2 tons of metals, per the Federal Management Regulations, as well. Finally, the agency directed the clearing of 32,665 square feet of space for return to the lessor two weeks ahead of schedule, saving the USPTO an estimated annual rent of \$468,000.

SECURITY, SAFETY, AND HEALTH

The USPTO has initiated several projects that will further improve the agency's responses to potential security threats. These include technological enhancements, such as the successful upgrade of the emergency radio communication system with modern equipment, which extended coverage to all the regional offices, and upgrades to the USPTO's security access control system.

In addition, the USPTO continues to support the initiatives of the National Background Investigations Bureau regarding the investigation of employees by releasing approximately 2,000 investigation actions throughout the fiscal year.

During the COVID-19 pandemic, the USPTO continued to provide employees with the opportunity to receive their annual flu shots and the ability to donate blood to INOVA Blood Services on campus in a manner that complied with the Centers for Disease Control and Prevention (CDC) guidance for social distancing as well as the USPTO's rules for building access. The USPTO ensured personnel in regional offices were also able to receive their flu shots while abiding by CDC and USPTO protocols for safety and health. The flu shot campaign was a success. Over 600 employees, returned to campus to receive their flu shots. Also, during this time, INOVA Blood Services requested that the USPTO restart the Blood Donation Program because blood donations had all but stopped due to the pandemic. The USPTO uses INOVA's Bloodmobile once a month. Since October 2020, USPTO employees have donated over 300 units of blood.

THE NATURE OF THE TRAINING PROVIDED TO USPTO EXAMINERS AND ATTORNEYS

Achieving excellence within the global IP community requires a highly skilled and expertly trained workforce to provide high-quality and efficient examination of patent applications. In FY 2021, the USPTO incorporated best practices from academia to create more effective training. The agency conducted more than 413,625 hours of patent examination training and 73,494 hours of other types of training for patent employees. With the continuance of the maximum telework posture, the USPTO further improved upon the delivery of staff training in the virtual environment, administering training to 179 independent inventors and patent practitioners.

PATENT EXAMINER TRAINING

VILT

VILT: This program focuses on recent updates to examination practice and procedures for more experienced practitioners. The trainings are derived from the same guidance the USPTO provides its experienced patent examiners, and the online format allows participants to remotely attend without the need to travel to USPTO locations.

	Date	Attendees
After Final Practice	1/26/21 to 1/28/21	1,216
Petition Basics	2/23/21 to 2/25/21	942

PATENT EXAMINER TRAINING

PROGRAMS FOR EXPERIENCED PATENT EXAMINERS

Patent Examiner Refresher Training Program: This optional program provides patent examiners who have at least one year of patent examining experience the opportunity to register for and take a variety of refresher courses. Refresher courses are designed to keep patent examiners current on the knowledge, skills, and abilities related to procedures, legal matters, communication, and automation that are constantly evolving in their fields of specialty. The table below shows the number of trainings, participants, and hours involved in the Patent Examiner Refresher Training Program in FY 2021.

	# of Trainings	# of Participants	Total Hours
Patent Law and Evidence	238	11,003	19,330

Master Class Program: This optional program is for patent examiners who have at least one year of patent examining experience and who want to delve deeper into more specific topics than those offered as part of the Patent Examiner Refresher Training Program. Courses cover 1.130 AIA Declarations of Attribution or Prior Public Disclosure, CPC, and Examination of Ranges. The table below shows the number of trainings, participants, and hours involved in the Master Class Program in FY 2021.

	# of Trainings	# of Participants	Total Hours
Patent Law and Evidence	34	1,283	1,576

Patent Corps Examination Training: These mandatory or elective training courses are designed to bring consistency to the application of patent examination policy, practice, and procedures across technologies. Recent courses include Case Law Review: Recent Federal Circuit and Supreme Court Decisions, among other topics. In FY 2021, the cumulative total number of hours of mandatory training provided was approximately 50,358.

Patent Quality Chats for Patent Examiners: This optional program provides examiners with the opportunity to interact with subject matter experts in specific fields of technology. The program offers a brief presentation followed by a question-and-answer period to allow participants to ask questions about the specific topic being discussed.

In-House Patent Law and Evidence Course: This mandatory training for all GS-12 patent examiners covers authoritative court decisions concerning statutory issues under 35 U.S.C. sections 101, 102, 103, and 112 and decisions concerning the handling of evidence during the examination of applications.

Patent Examiner Technical Training Program (PETTP): PETTP provides examiners with the opportunity to engage with and learn from experts in their field, so they stay up to date on the latest developments and trends. Scientists, engineers, professors, industrial designers, and other technology experts volunteer to teach patent examiners about their areas of expertise. Volunteers come from dozens of Fortune 500 companies and educational institutions. These presenters cover technological advances, emerging trends, and recent innovations in their respective fields. The USPTO can host these trainings in the virtual environment to allow the experts to provide this training from anywhere, including their office or even their own home.

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PATENT EXAMINER TRAINING

PROGRAMS FOR EXPERIENCED PATENT EXAMINERS

PETTP Program Totals	Q1-Q4
Total # of Events	524
Total Hours of Training	37,626
# of Examiner Participants	26,775
Average Hours per Examiner	4.6

Site Experience Education: This unique program provides education in technology at its source. It affords groups of patent examiners the opportunity to visit sites of innovation within the continental U.S., where they receive updates on current and emerging technologies and view technology first-hand. This program was affected by travel restrictions due to COVID-19. Still, the USPTO is currently evaluating and planning options to allow for online technical conferences and virtual tours as alternative options for the program. The USPTO was able to collaborate with Olympus Corporation to organize a technical lecture and virtual tour of the facilities in Seattle in October of 2020.

Aspiring Managers Program (AMP): This cohort-based program combines five types of activities, including assessments; classroom training; interactive workshops; shadowing; and mentoring to assist in developing leadership, interpersonal, and technical skills necessary to become a manager in the Patents organization. This five-month training program for experienced Patent Operations employees with full-signatory authority incorporates all 10 USPTO Leader Profile Qualities within the curriculum to aid in employees' leadership development as they look to establish their career paths. Since the implementation of this program in December 2017, four sessions have been completed with 105 participants, resulting in 24 of them being selected into managerial positions as either Supervisory Patent Examiners or Supervisory Patent Examiner Trainers.

Non-Duty Hours Legal Studies Program: This program supports additional legal training to increase the knowledge throughout the Patent organization. It allows the USPTO to reimburse eligible employees for tuition at accredited law schools to increase their depth of legal knowledge, as long as the courses taken are mission-related and are needed to earn a Juris Doctor degree. In FY 2021, there were 106 active participants in this program, with 100% tuition coverage.

Non-Duty Hours Technical Studies Program: This program is voluntary and aims to develop and maintain a highly skilled workforce by enhancing the employees' technical knowledge, skills, and abilities. This program allows the USPTO to reimburse eligible employees for technical courses taken at accredited colleges and universities. In FY 2021, there were 47 active participants in the program.

PROGRAMS FOR ADMINISTRATIVE STAFF **Patent Administrative Continued Education (PACE):** PACE was launched in FY 2019 to provide critical educational opportunities for administrative staff at the USPTO. The program includes a dynamic curriculum that focuses on employee engagement and adult learning opportunities to enhance the personal and professional development of administrative staff. In the PACE program, 19,808 hours of training were provided to 695 participants in FY 2021. This program includes a variety of programs, including the Upward Mobility Program.

Upward Mobility Program (UMP): This program provides specific career development opportunities for employees who are in positions or occupational series that offer limited options for advancement. In FY 2021, Patents had 112 active participants enrolled in this program for a total of 14,336 hours of training.

TRADEMARK EXAMINING ATTORNEY TRAINING

The USPTO typically trains newly hired examining attorneys in a classroom setting during their first six to eight weeks at the USPTO. The classroom trainers are from the USPTO's OTQRT, and others are law office managing and senior attorneys. At the end of classroom training, each examining attorney is integrated into their assigned law office. The new hires are mentored by the senior attorney of that law office, who also has other management responsibilities, or they are paired with an experienced examining attorney who serves as a mentor. Each existing law office typically receives one to three new attorneys at a time. Law offices consist of about 25 attorneys at various grade levels (GS 11-14), with the majority of the GS-13 and GS-14 attorneys working full-time at home and all of the GS-11s and GS-12s working the majority of the time at headquarters. In the past fiscal year, 73 examining attorneys were hired in two groups, and all training was conducted virtually due to ongoing pandemic restrictions.

In FY 2021, the USPTO analyzed data from a quality review of Trademarks work products to prepare content for online e-learning training materials for trademark examining attorneys. Live and webcast training sessions and modules were developed and released that covered the following topics:

- INTA—Cannabis Industry
- Trademark Manual of Examining Procedure (TMEP) Update
- New Examining Attorney Training
 - » 2(d) and 2(e)(1) Excellent Office Action Writing
 - » 2(d) Decision-Making
- Performing Artists and Author Names as Marks
- TMA
- Snaglt Training with the Law Librarians
- Varietals Training with the Law Librarians
- Google Images Training with the Law Librarians
- Primo Library Card Training with the Law Librarians

Two Examination Guides Released:

- Generic.com Terms after USPTO v. Booking.com
- Clarification of Examination Evidentiary Standard for Marks Refused as Generic

One Examination Note Released

• Examination of U.S. Applications Affected by Brexit

Five ID/Class Guidelines Released:

- Nice Classification 11th Ed. 2021 Noteworthy Changes
- Nice Classification 11th Ed. 2021 Changes to the ID Manual Consistent with TMEP Update
- Nice Classification 11th Ed. 2021 Noteworthy Changes to USPTO Classification Policy and Practice
- Nice Classification 11th Ed. 2021, January 1, 2021 Update
- Nice Classification 11th Ed. 2021 Instructions
- Training on Frequent Identification and Classification Queries

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One ID/Class Bulletin on Various Topics Released

Special Marks ID/Class Resources for Identification and Classification Issues Related to COVID-19 and Cannabidiol **Registered Mark List** – Compilation of Registered Marks for which the USPTO has Received a Letter of Protest or has otherwise been Notified of the Inappropriate Use of Registered Mark in Identifications for Goods and Services.

Four Issues of Reminders Examination Information Released:

- March 2021:
 - 1. Searching in Service Classes by Individual Class
 - 2. Do You See A Case with a Pending Petition to the Director in Your Docket?
 - 3. Pre-Examination Translations Pilot for Marks Containing Non-Latin Characters
- May 2021:
 - 1. Varietal and Cultivar Names
 - 2. Resources for Translations of Non-English Wording
- June 2021:
 - 1. Petitions to Revive: New Searches are Required!
 - 2. Providing the Correct Entity Information for Common Entity Types
- August 2021:
 - 1. Unnecessary Translation Statements
 - 2. Rules for Appointments/Revocations of Attorneys

FY 2021 WORKLOAD TABLES

This section is required by 35 U.S.C. § 13.

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TABLE 1: SUMMARY OF PATENT EXAMINING ACTIVITIES (FY 2017-FY 2021) (PRELIMINARY FOR FY 2021)

PATENT EXAMINING ACTIVITY	2017	2018	2019	2020	2021
Applications Filed, Total ^{1, 2}	650,350	647,572	666,843	653,311	650,654
Utility ³	604,298	599,174	619,017	603,669	593,294
Serialized ^{3a}	419,898	426,983	447,992	450,910	450,457
RCE ^{3b, 3c}	186,520	174,229	173,280	154,962	144,941
Reissue ²	1,049	989	1,096	1,153	1,140
Plant ²	1,071	1,049	1,159	1,050	964
Design ²	43,932	46,360	45,571	46,105	54,201
CPA ⁴	1,210	1,267	1,327	1,334	1,055
Provisional Applications Filed ^{2,5}	166,885	168,427	169,514	174,464	158,346
First Actions					
Design	40,415	41,587	40,098	42,219	40,265
Utility, Plant, and Reissue	611,280	597,509	582,917	578,768	520,233
Patent Cooperation Treaty (PCT)/Chapter	20,353	20,932	21,559	21,903	20,323
Patent Application Disposals, Total	676,002	680,467	682,134	657,948	623,467
Allowed Patent Applications, Total	373,093	368,877	406,678	405,884	385,433
Design	32,705	34,078	35,450	36,350	35,516
Utility, Plant, and Reissue	340,388	334,799	371,228	369,534	349,917
Abandoned, Total	302,452	282,374	275,470	251,029	237,209
Design	5,894	6,197	6,529	5,807	5,886
Utility, Plant, and Reissue	296,558	276,177	268,941	245,222	231,323
Statutory Invention Registration Disposals, Total	-	-	-	-	-
PCT/Chapter II Examinations Completed	1,064	929	1,017	1,084	913
Applications Published ⁶	373,153	373,693	394,825	402,457	415,413
Patents Issued ^{2,7}	347,372	339,512	370,423	399,055	374,006
Utility	315,367	306,912	336,846	360,784	338,335
Reissue	392	500	554	608	501
Plant	1,246	1,251	1,193	1,350	1,256
Design	30,367	30,849	31,830	36,313	33,914
Pendency Time of Average Patent Application ⁸	24.2	23.8	23.8	23.3	23.3
Reexamination Certificates Issued	513	1,314	626	709	843
PCT International Applications Received by the USPTO as Receiving Office	56,840	55,849	55,692	56,982	56,602
National Requirements Received by the USPTO as Designated/Elected office	90,577	94,359	98,184	102,180	106,746
Patents Renewed under Public Law No. 102-2049	424,574	490,132	479,839	590,199	447,297
Patents Expired under Public Law No 102-2049	99,047	118,709	129,466	133,240	145,807

⁻ Represents zero.

- ¹ FY 2021 filing data are preliminary and will be finalized in the FY 2021 PAR.
- $^{2}\,$ FY 2020 application data have been updated with final end-of-year numbers.
- ³ Utility patents include chemical, electrical, and mechanical applications.
- ^{3a} Serialized—A newly filed UPR application that has been assigned a serial number.

- ⁴ CPA—In a design application, a procedure by which the applicant, instead of filing a separate continuation or separate divisional application, renews the prosecution of his/her prior design application.
- ⁵ Provisional applications provided for in Public Law No. 103-465.
- ⁶ Eighteen-month publication of patent applications provided for the American Inventors Protection Act of 1999, Public Law No. 106-113.
- Excludes withdrawn numbers. Past years' data may have been revised from prior-year reports.
- 8 Average time (in months) between filing and issuance or abandonment of utility, plant, and reissue applications. This average does not include design patents.
- The he provisions of Public Law No. 102-204 regarding the renewal of patents superseded Public Law No. 96-517 and Public Law No. 97-247. Past years' data may have been revised from prior-year reports.

³b RCE—A procedure by which, after the prosecution has been closed by a final rejection, a notice of allowance, etc., the applicant pays a fee and requests that the prosecution of the application be reopened.

^{3c} Reissue RCEs are captured under RCE.

TABLE 2: PATENT APPLICATIONS FILED BY TYPE (FY 2001-FY 2021) (PRELIMINARY FOR FY 2021)¹

Year	Utility ^{1a}	Serialized ^{1a, 2}	RCE ^{3,4}	Design ^{1a}	CPA⁵	Plant ^{1a}	Reissue ^{1a, 4}	Total ^{1a}
2001	324,211			18,636		914	956	344,717
2002	331,580			19,706		1,134	974	353,394
2003	331,729			21,966		785	938	355,418
2004	353,319			23,457		1,212	996	378,984
2005	381,797			25,304		1,288	1,143	409,532
2006	417,453			25,853		1,204	1,103	445,613
2007	439,578			26,693		1,002	1,057	468,330
2008	466,258			28,217		1,331	1,080	496,886
2009	458,901			25,575		988	1,035	486,499
2010	479,332			28,577		1,013	1,138	510,060
2011	504,663			30,247		1,103	1,158	537,171
2012	530,915			32,258		1,181	1,212	565,566
2013	564,007			35,065		1,318	1,074	601,464
2014	579,873			36,254		1,123	1,207	618,457
2015	578,121			37,735		1,119	1,087	618,062
2016	607,753			40,406		1,180	1,072	650,411
2017	604,298			43,932		1,071	1,049	650,350
2018	599,174			46,360		1,049	989	647,572
2019	621,272	447,992	173,280	45,571	1,327	1,159	1,096	669,098
2020	603,669	450,910	154,962	46,105	1,334	1,050	1,153	653,311
2021	593,294	450,457	144,941	54,201	1,055	964	1,140	650,654

 $^{^{\}rm 1}\,$ FY 2021 data are preliminary and will be finalized in the FY 2022 PAR.

Effective FY 2019, RCE and Serialized filings were reported separately. Prior to FY 2019, RCE and Serialized filing totals were combined.

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^{1a} FY 2020 data have been updated with final year-end-numbers.

² Serialized - A newly filed application that has been assigned a serial number.

^{2a} Serialized - includes serialized plant and serialized reissues.

³ RCE (Request for Continued Examination) - A procedure by which, after the prosecution has been closed by a final rejection, a notice of allowance, etc., the applicant pays a fee and requests that the prosecution of the application be reopened.

⁴ Reissue RCEs including plant RCEs are captured under RCE.

⁵ CPA (Continued Prosecution Application) – In a design application, a procedure by which the applicant, instead of filing a separate continuation or separate divisional application, renews the prosecution of his/her prior design application.

TABLE 3: PATENT APPLICATIONS PENDING PRIOR TO ALLOWANCE¹ (FY 2001-FY 2021)

Year	Awaiting Action by Examiner ³	Total Applications Pending ^{2,3}
2001	355,779	542,007
2002	433,691	636,530
2003	471,382	674,691
2004	528,685	756,604
2005	611,114	885,002
2006	701,147	1,003,884
2007	760,924	1,112,517
2008	771,529	1,208,076
2009	735,961	1,207,794
2010	726,331	1,163,751
2011	690,967	1,168,928
2012	633,812	1,157,147
2013	616,409	1,148,823
2014	642,949	1,127,701
2015	592,417	1,099,468
2016	579,074	1,070,163
2017	569,088	1,082,661
2018	542,446	1,071,395
2019	600,728	1,011,201
2020	630,873	1,011,827
2021	645,573	1,045,177

Includes patent applications pending at end of period indicated, and includes utility, reissue, plant, and design applications. Does not include allowed

Applications under examination, including those in preexamination processing.
 FY 2020 data have been updated with final end-of-year numbers.

TABLE 4: PATENT PENDENCY STATISTICS (FY 2021)

Utility, Plant, Reissue Pendency Statistics by Technology Center (in months)	Average First Action Pendency	Total Average Pendency
Total Utility, Plant, and Reissue Pendency	16.9	23.3
Tech Center 1600—Biotechnology and Organic Chemistry	17.0	24.0
Tech Center 1700—Chemical and Materials Engineering	18.8	26.7
Tech Center 2100—Computer Architecture, Software, and Information Security	17.5	25.6
Tech Center 2400—Networks, Multiplexing, Cable, and Security	15.7	22.9
Tech Center 2600—Communications	13.5	19.9
Tech Center 2800—Semiconductor, Electrical, Optical Systems, and Components	15.7	22.3
Tech Center 3600—Transportation, Construction, Agriculture, and Electronic Commerce	18.1	25.9
Tech Center 3700—Mechanical Engineering, Manufacturing, and Products	18.6	26.7

TABLE 5: SUMMARY OF TOTAL PENDING PATENT APPLICATIONS (FY 2021)

Stage of Processing	Utility, Plant, and Reissue Applications	Design Applications	Total Patent Applications
Pending Patent Applications, Total	1,045,177	91,036	1,136,213
In Preexamination Processing, Total	115,482	1,912	117,394
Under Examination, Total	837,816	79,227	917,043
Undocketed	52,625	7,590	60,215
Awaiting First Action by Examiner	477,466	60,061	537,527
Subtotal of pending applications	530,091	69,563	599,654
Request for Continued Examination Awaiting First Action	13,614	88	13,702
Rejected, Awaiting Response by Applicant	223,069	9,354	232,423
Amended, Awaiting Action by Examiner	57,142	1,963	59,105
In Interference	38	-	38
On Appeal, and Other ¹	13,862	171	14,033
In Postexamination Processing, Total	91,879	9,897	101,776
Awaiting Issue Fee	78,520	7,311	85,831
Awaiting Printing ²	13,359	1,451	14,810
D-10s (Secret Cases in Condition for Allowance) ³	11,578	1,135	12,713

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Includes cases on appeal and undergoing petitions.
 Includes withdrawn cases.
 Applications classified under U.S.C. § 181 that are otherwise in condition for allowance.

TABLE 6: PATENTS ISSUED (FY 2001-FY 2021)1

Year	Utility ²	Design	Plant	Reissue	Total
2001	169,571	17,179	563	504	187,817
2002	160,839	15,096	912	465	177,312
2003	171,493	16,525	1,178	394	189,590
2004	169,295	16,533	998	343	187,169
2005	151,077	13,395	816	195	165,483
2006	162,509	19,072	1,106	500	183,187
2007	160,306	22,543	979	548	184,376
2008	154,699	26,016	1,179	662	182,556
2009	165,213	23,415	1,096	398	190,122
2010	207,915	23,373	978	861	233,127
2011	221,350	21,295	816	969	244,430
2012	246,464	21,953	920	921	270,258
2013	265,979	22,453	842	809	290,083
2014	303,930	24,008	1,013	661	329,612
2015	295,460	25,438	1,020	531	322,449
2016	304,568	27,830	1,250	459	334,107
2017	315,367	30,637	1,246	392	347,642
2018	306,912	30,849	1,251	500	339,512
2019	336,846	31,830	1,193	554	370,423
2020	360,784	36,313	1,350	608	399,055
2021	338,335	33,914	1,256	501	374,006

Past years' data may have been revised from prior-year reports.
 Includes chemical, electrical, and mechanical applications.

TABLE 7: PATENT APPLICATIONS FILED BY RESIDENTS OF THE UNITED STATES¹ (FY 2017-FY 2021) (PRELIMINARY FOR FY 2021)²

State/Territory	2017	2018	20	19	202	20 ²	202	21 ²
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE⁴
Total	316,718	310,416	227,703	88,373	221,050	81,201	0	0
Alabama	1,061	1,052	863	229	830	208	N/A	N/A
Alaska	100	117	86	24	79	9	N/A	N/A
Arizona	5,330	5,483	4,350	1,298	4,120	1,346	N/A	N/A
Arkansas	959	1,162	732	227	481	321	N/A	N/A
California	87,203	85,071	61,333	25,683	61,810	23,398	N/A	N/A
Colorado	6,079	6,138	4,690	1,618	4,806	1,496	N/A	N/A
Connecticut	5,343	5,595	3,824	1,635	3,390	1,491	N/A	N/A
Delaware	686	622	464	155	429	162	N/A	N/A
District of Columbia	482	582	457	164	483	168	N/A	N/A
Florida	9,834	9,756	7,575	2,246	7,953	2,123	N/A	N/A
Georgia	6,066	5,725	4,090	1,716	4,014	1,533	N/A	N/A
Hawaii	312	262	219	68	236	71	N/A	N/A
Idaho	1,432	1,588	1,625	333	1,568	404	N/A	N/A
Illinois	10,748	10,244	7,599	2,901	7,346	2,779	N/A	N/A
Indiana	4,262	4,252	3,026	1,014	3,098	882	N/A	N/A
lowa	1,923	2,033	1,591	453	1,509	462	N/A	N/A
Kansas	1,575	1,428	1,130	382	1,161	357	N/A	N/A
Kentucky	1,359	1,416	1,092	305	1,090	250	N/A	N/A
Louisiana	941	960	718	168	679	175	N/A	N/A
Maine	347	395	299	111	268	108	N/A	N/A
Maryland	4,325	4,303	3,142	1,204	3,092	1,149	N/A	N/A
Massachusetts	16,234	16,348	12,076	5,185	11,805	4,637	N/A	N/A
Michigan	11,970	11,237	8,844	1,900	7,823	1,541	N/A	N/A
Minnesota	8,417	8,142	5,572	2,331	5,474	2,054	N/A	N/A
Mississippi	378	363	341	62	268	54	N/A	N/A
Missouri	2,844	2,868	2,097	867	1,940	788	N/A	N/A
Montana	349	319	276	70	277	73	N/A	N/A
Nebraska	701	755	570	187	447	175	N/A	N/A
Nevada	1,699	1,790	1,416	480	1,479	416	N/A	N/A
New Hampshire	1,834	1,795	1,329	490	1,242	496	N/A	N/A
New Jersey	9,983	9,270	6,596	2,696	6,372	2,591	N/A	N/A
New Mexico	1,026	932	625	241	633	215	N/A	N/A

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TABLE 7: PATENT APPLICATIONS FILED BY RESIDENTS OF THE UNITED STATES¹ (FY 2017-FY 2021) (PRELIMINARY FOR FY 2021)² (CONTINUED)

State/Territory	2017	2018	2019		2020 ²		2021 ²	
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE⁴
New York	18,602	18,649	13,007	5,325	11,778	4,852	N/A	N/A
North Carolina	7,224	7,368	5,169	2,315	4,827	2,034	N/A	N/A
North Dakota	233	229	187	64	207	46	N/A	N/A
Ohio	9,638	9,237	6,458	2,734	5,924	2,780	N/A	N/A
Oklahoma	1,178	1,197	1,015	285	873	250	N/A	N/A
Oregon	6,395	6,486	5,013	1,360	4,543	1,326	N/A	N/A
Pennsylvania	8,934	8,693	6,189	2,496	6,393	2,482	N/A	N/A
Rhode Island	846	758	581	208	610	216	N/A	N/A
South Carolina	2,328	2,010	1,566	502	1,501	579	N/A	N/A
South Dakota	303	316	221	82	184	68	N/A	N/A
Tennessee	2,459	2,418	2,135	623	1,943	607	N/A	N/A
Texas	21,844	21,825	16,265	6,669	15,818	5,818	N/A	N/A
Utah	3,822	3,477	2,595	982	2,664	874	N/A	N/A
Vermont	596	574	399	130	314	111	N/A	N/A
Virginia	4,646	4,809	3,844	1,417	4,054	1,322	N/A	N/A
Washington	16,432	15,017	10,061	5,458	9,236	4,672	N/A	N/A
West Virginia	235	333	197	56	153	43	N/A	N/A
Wisconsin	4,831	4,645	3,838	1,147	3,478	1,105	N/A	N/A
Wyoming	232	243	192	54	220	51	N/A	N/A
Puerto Rico	83	99	100	17	89	25	N/A	N/A
U.S. Virgin Islands	15	14	8	6	16	7	N/A	N/A
U.S. Pacific Islands ⁵	36	13	13	-	9	-	N/A	N/A
United States, Unknown ⁶	4	3	3	-	14	1	N/A	N/A

⁻ Represents zero.

Effective FY 2019, RCE and Serialized filings were reported separately. Prior to FY 2019, RCE and Serialized filing totals were combined.

¹ Data include utility, plant, design, and reissue applications.

² FY 2021 preliminary data should be available January 2022 at www.uspto.gov and finalized in the FY 2022 PAR.

³ Serialized - A newly filed UPR application that has been assigned a serial number.

⁴ RCE (Request for Continues Examination) - A procedure by which, after the prosecution has been closed by a final rejection, a notice of allowance, etc., the applicant pays a fee and requests that the prosecution of the application be reopened.

⁵ Represents residents of American Samoa, Guam, and miscellaneous U.S. Pacific Islands.

⁶ State/Territory information not available.

TABLE 8: PATENTS ISSUED TO RESIDENTS OF THE UNITED STATES¹ (FY 2020-FY 2021)²

State/Territory	2020	2021
Total	188,344	170,059
Alabama	635	606
Alaska	65	42
Arizona	3,283	2,960
Arkansas	629	384
California	51,817	46,564
Colorado	3,940	3,438
Connecticut	3,563	3,038
Delaware	373	302
District of Columbia	332	304
Florida	5,617	5,358
Georgia	3,483	3,034
Hawaii	152	152
Idaho	1,177	1,229
Illinois	6,349	5,779
Indiana	2,726	2,352
lowa	1,274	1,220
Kansas	889	891
Kentucky	899	773
Louisiana	520	495
Maine	237	250
Maryland	2,508	2,337
Massachusetts	9,019	8,407
Michigan	7,901	6,853
Minnesota	5,016	4,122
Mississippi	218	212
Missouri	1,768	1,514
Montana	195	183

State/Territory	2020	2021
Nebraska	457	399
Nevada	1,045	1,004
New Hampshire	1,111	1,145
New Jersey	5,134	4,730
New Mexico	551	438
New York	10,827	9,332
North Carolina	4,054	3,923
North Dakota	134	158
Ohio	5,466	5,049
Oklahoma	698	659
Oregon	4,084	3,771
Pennsylvania	4,817	4,488
Rhode Island	505	450
South Carolina	1,463	1,158
South Dakota	156	176
Tennessee	1,458	1,423
Texas	13,605	12,294
Utah	2,150	1,860
Vermont	371	300
Virginia	2,991	2,922
Washington	9,303	8,424
West Virginia	146	134
Wisconsin	2,997	2,796
Wyoming	158	145
Puerto Rico	71	67
U.S. Virgin Islands	5	7
U.S. Pacific Islands ³	2	7
United States, Unknown ⁴	-	1

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⁻ Represents zero.

Data include utility, design, plant, and reissue patents.
 FY 2020 data may have been updated since the FY 2020 PAR.

³ Represents residents of American Samoa, Guam, and miscellaneous U.S. Pacific Islands.

⁴ No state indicated in database.

TABLE 9: UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021)

Residence	2017	2018	2019		20	20	2021	
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE⁴
Total	332,522	335,118	265,853	84,906	278,078	76,953	0	0
Afghanistan	-	-	-	-	-	-	N/A	N/A
Albania	-	3	1	1	1	1	N/A	N/A
Algeria	2	-	-	-	5	-	N/A	N/A
Andorra	4	1	4	1	2	1	N/A	N/A
Angola	1	1	-	-	-	-	N/A	N/A
Anguilla	1	-	-	-	2	-	N/A	N/A
Antigua and Barbuda	1	-	-	-	3	-	N/A	N/A
Argentina	200	200	151	60	146	54	N/A	N/A
Armenia	52	31	32	20	34	12	N/A	N/A
Aruba	2	3	2	-	-	-	N/A	N/A
Australia	4,254	4,198	3,288	1,033	3,255	992	N/A	N/A
Austria	2,707	2,719	2,043	746	1,901	637	N/A	N/A
Azerbaijan	3	2	3	1	1	-	N/A	N/A
Bahamas	9	12	10	5	10	4	N/A	N/A
Bahrain	6	9	4	5	4	2	N/A	N/A
Bangladesh	15	10	7	10	8	6	N/A	N/A
Barbados	7	4	2	2	16	1	N/A	N/A
Belarus	23	19	47	10	37	6	N/A	N/A
Belgium	2,750	2,782	1,915	855	2,044	710	N/A	N/A
Belize	2	2	5	-	2	1	N/A	N/A
Benin	-	-	-	-	-	-	N/A	N/A
Bermuda	7	4	11	2	4	1	N/A	N/A
Bolivia	4	1	5	2	-	1	N/A	N/A
Bonaire, Sint Eustatius, and Saba	-	-	-	-	-	-	N/A	N/A
Bosnia and Herzegovina	3	3	3	-	2	1	N/A	N/A
Botswana	-	-	-	-	-	-	N/A	N/A
Brazil	966	1,031	791	287	732	272	N/A	N/A
British Virgin Islands	15	8	1	-	4	1	N/A	N/A
Brunei Darussalam	7	4	1	3	2	3	N/A	N/A
Bulgaria	109	94	77	40	95	34	N/A	N/A
Burkina Faso	-	-	-	-	-		N/A	N/A
Burundi	-	2	-	-	1	-	N/A	N/A
Cambodia	-	1	1	-	1	-	N/A	N/A

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TABLE 9: UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES¹ AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	20	2019		20	2021	
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE⁴
Cameroon	3	3	1	-	1	-	N/A	N/A
Canada	14,167	14,086	10,484	3,989	10,073	3,552	N/A	N/A
Cayman Islands	25	13	23	5	23	2	N/A	N/A
Chad	-	-	-	-	-	-	N/A	N/A
Chile	129	171	113	21	108	29	N/A	N/A
China (Hong Kong)	2,001	1,723	1,325	322	1,361	296	N/A	N/A
China (Macau)	51	33	3	12	13	6	N/A	N/A
China (People's Republic of)	32,127	37,788	37,323	6,962	47,712	6,666	N/A	N/A
Colombia	84	114	87	28	92	31	N/A	N/A
Congo, Dem. Republic of ⁵	-	1	-	-	-	-	N/A	N/A
Costa Rica	39	80	71	9	49	10	N/A	N/A
Cote d'Ivoire	-	1	-	-	-	-	N/A	N/A
Croatia	34	42	44	9	58	9	N/A	N/A
Cuba	16	10	12	1	6	5	N/A	N/A
Curação	-	-	-	-	-	-	N/A	N/A
Cyprus	26	25	22	5	36	3	N/A	N/A
Czech Republic	608	623	419	168	381	140	N/A	N/A
Denmark	2,419	2,455	1,808	649	1,948	598	N/A	N/A
Dominican Republic	9	8	5	2	12	1	N/A	N/A
Ecuador	8	7	8	-	6	1	N/A	N/A
Egypt	101	65	61	27	57	24	N/A	N/A
El Salvador	2	2	1	-	1	-	N/A	N/A
Eritrea	1	1	-	-	-	-	N/A	N/A
Estonia	81	80	63	24	76	6	N/A	N/A
Eswatini	-	-	-	-	-	-	N/A	N/A
Ethiopia	-	-	-	-	-	-	N/A	N/A
Faroe Islands	1	-	1	-	1	-	N/A	N/A
Fiji	-	-	-	-	-	-	N/A	N/A
Finland	3,081	2,851	1,762	1,027	1,916	831	N/A	N/A
French Polynesia	1	-	-	1	-	-	N/A	N/A
France	13,552	13,275	9,236	3,505	9,157	3,328	N/A	N/A
Gabon	1	1	-	-	-	-	N/A	N/A
Gambia	-	1	-	-	-	-	N/A	N/A
Georgia	6	4	3	-	4	1	N/A	N/A

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TABLE 9: UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES¹ AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019		20	20	2021	
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE ⁴
Germany	32,771	32,734	24,097	8,870	23,364	8,046	N/A	N/A
Ghana	2	1	-	-	-	-	N/A	N/A
Gibraltar	8	3	5	4	5	1	N/A	N/A
Greece	248	246	219	61	196	72	N/A	N/A
Greenland	-	-	-	-	-	-	N/A	N/A
Grenada	-	1	-	-	-	-	N/A	N/A
Guadeloupe	-	-	-	-	-	-	N/A	N/A
Guatemala	9	13	5	2	12	1	N/A	N/A
Guernsey	-	2	2	-	2	-	N/A	N/A
Guinea	-	-	1	1	-	-	N/A	N/A
Guyana	-	-	-	-	-	-	N/A	N/A
Haiti	-	-	-	-	-	-	N/A	N/A
Honduras	-	-	1	1	-	-	N/A	N/A
Hungary	296	237	239	76	225	67	N/A	N/A
Iceland	93	99	66	19	65	19	N/A	N/A
India	9,115	9,809	7,678	3,181	7,925	3,101	N/A	N/A
Indonesia	38	27	22	12	31	9	N/A	N/A
Iran	157	172	88	13	82	16	N/A	N/A
Iraq	-	4	2	1	7	N/A	N/A	N/A
Ireland	1,487	1,612	1,118	532	1,271	564	N/A	N/A
Isle of Man	13	9	7	2	5	3	N/A	N/A
Israel	8,664	8,312	6,170	2,533	6,415	2,302	N/A	N/A
Italy	6,165	6,046	4,866	1,361	4,506	1,294	N/A	N/A
Jamaica	14	12	5	7	2	N/A	N/A	N/A
Japan	89,364	87,872	68,471	21,387	66,346	18,625	N/A	N/A
Jersey	33	26	16	2	14	1	N/A	N/A
Jordan	43	22	13	5	23	7	N/A	N/A
Kazakhstan	11	16	17	2	8	1	N/A	N/A
Kenya	33	41	35	10	25	22	N/A	N/A
Korea (Dem. Republic of)	-	-	1	-	-	-	N/A	N/A
Korea (Republic of)	38,026	36,645	28,390	10,675	33,228	9,063	N/A	N/A
Kosovo					1	-	N/A	N/A
Kuwait	46	59	65	7	26	6	N/A	N/A
Kyrgyzstan	-	2	-	-	3	-	N/A	N/A

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TABLE 9: UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES¹ AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019		2020		2021	
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE⁴
Laos	-	-	-	1	2	-	N/A	N/A
Latvia	15	29	25	1	38	5	N/A	N/A
Lebanon	28	37	34	10	33	6	N/A	N/A
Lesotho	-	-	-	-	-	-	N/A	N/A
Liberia	-	1	-	-	-	-	N/A	N/A
Libya	-	-	-	-	-	-	N/A	N/A
Liechtenstein	54	42	44	10	48	8	N/A	N/A
Lithuania	32	48	37	6	55	8	N/A	N/A
Luxembourg	135	127	122	45	120	44	N/A	N/A
Madagascar	1	-	-	-	-	-	N/A	N/A
Malawi	-	1	-	-	-	-	N/A	N/A
Malaysia	521	561	403	117	362	105	N/A	N/A
Mali	-	1	-	-	1	-	N/A	N/A
Malta	17	41	21	5	34	9	N/A	N/A
Martinique	-	-	-	-	-	-	N/A	N/A
Mauritius	1	7	4	-	1	-	N/A	N/A
Mexico	727	681	460	159	412	130	N/A	N/A
Moldova	2	3	5	-	5	-	N/A	N/A
Monaco	50	37	19	5	34	10	N/A	N/A
Mongolia	3	-	4	-	3	-	N/A	N/A
Montenegro	1	1	2	-	8	-	N/A	N/A
Morocco	4	8	11	1	13	2	N/A	N/A
Mozambique					2	-	N/A	N/A
Myanmar	-	2	2	1	-	-	N/A	N/A
Namibia	-	3	-	-	7	-	N/A	N/A
Nepal (Federal Democratic Republic of)	-	2	2	-	1	-	N/A	N/A
Netherlands	5,921	5,761	3,990	1,520	3,791	1,403	N/A	N/A
New Caledonia	-	3	2	-	-	1	N/A	N/A
New Zealand	843	849	607	236	642	219	N/A	N/A
Nicaragua	1	1	-	-	-	-	N/A	N/A
Niger	-	-	2	2	-	-	N/A	N/A
Nigeria	5	7	7	2	14	1	N/A	N/A
Norway	1,256	1,259	911	395	850	339	N/A	N/A
North Macedonia	3	2	2	2	2	-	N/A	N/A

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TABLE 9: UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES¹ AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	20	19	20	20	2021	
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE⁴
Oman	8	4	2	1	4	1	N/A	N/A
Pakistan	49	31	22	10	23	3	N/A	N/A
Palau	-	-	1	-	2	-	N/A	N/A
Panama	13	13	5	4	7	5	N/A	N/A
Paraguay	-	15	-	-	1	-	N/A	N/A
Peru	21	26	17	2	32	4	N/A	N/A
Philippines	165	176	114	40	93	36	N/A	N/A
Poland	608	742	574	138	551	143	N/A	N/A
Portugal	316	298	254	64	226	80	N/A	N/A
Qatar	42	59	47	10	69	16	N/A	N/A
Romania	143	193	155	31	158	37	N/A	N/A
Russian Federation	1,208	1,101	1,002	304	1,008	303	N/A	N/A
Rwanda	-	-	1	-	-	-	N/A	N/A
Saint Kitts and Nevis	-	1	1	-	-	-	N/A	N/A
Saint Lucia	-	1	-	-	1	-	N/A	N/A
Saint Vincent and the Grenadines	1	-	-	-	-	-	N/A	N/A
Samoa	5	4	2	2	1	3	N/A	N/A
San Marino	3	3	1	-	10	1	N/A	N/A
Saudi Arabia	1,093	1,384	1,374	240	1,795	280	N/A	N/A
Senegal	1	1	-	-	-	-	N/A	N/A
Serbia	51	45	44	10	27	7	N/A	N/A
Seychelles	7	3	-	2	2	1	N/A	N/A
Singapore	2,059	2,055	1,444	559	1,758	518	N/A	N/A
Sint Maarten	-	-	-	-	-	-	N/A	N/A
Slovakia	88	82	75	14	77	20	N/A	N/A
Slovenia	121	133	118	30	116	35	N/A	N/A
South Africa	409	369	272	75	289	67	N/A	N/A
Spain	2,138	2,090	1,745	463	1,606	499	N/A	N/A
Sri Lanka	26	22	19	3	26	3	N/A	N/A
Sudan	-	1	1	-	1	-	N/A	N/A
Sweden	5,404	5,355	4,348	1,514	4,244	1,379	N/A	N/A
Switzerland	5,938	5,968	4,214	1,644	4,385	1,579	N/A	N/A
Syrian Arab Republic	1	-	-	-	1	-	N/A	N/A

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TABLE 9: UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES¹ AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	20)19	20	20	2021	
			Serialized ³	RCE⁴	Serialized ³	RCE⁴	Serialized ³	RCE⁴
Taiwan	19,911	20,258	17,135	3,889	17,954	3,738	N/A	N/A
Tajikistan	-	-	-	-	-	-	N/A	N/A
Tanzania	-	-	-	-	-	-	N/A	N/A
Thailand	187	196	220	34	152	43	N/A	N/A
Trinidad and Tobago	9	4	6	2	4	2	N/A	N/A
Tunisia	9	7	3	2	6	N/A	N/A	N/A
Turkey	500	497	356	76	332	87	N/A	N/A
Turkmenistan	-	-	1	1	-	-	N/A	N/A
Turks and Caicos Islands	-	4	2	-	-	-	N/A	N/A
Uganda	1	-	-	-	-	-	N/A	N/A
Ukraine	145	170	123	33	151	44	N/A	N/A
United Arab Emirates	170	209	161	54	166	58	N/A	N/A
United Kingdom	15,597	15,338	11,175	4,507	11,000	4,161	N/A	N/A
Uruguay	19	21	13	6	15	2	N/A	N/A
Uzbekistan	1	2	2	1	3	-	N/A	N/A
Vanuatu	-	2	-	-	-	-	N/A	N/A
Venezuela	20	13	14	3	5	1	N/A	N/A
Vietnam	53	74	73	6	104	7	N/A	N/A
West Bank/Gaza Strip	-	-	-	-	2	1	N/A	N/A
Yemen	1	2	-	1	1	-	N/A	N/A
Zambia	1	-	-	-	1	-	N/A	N/A
Zimbabwe	1	3	1	-	1	-	N/A	N/A
Other ⁵	-	-	1,122	-	-	-	N/A	N/A

⁻ Represents zero.

Effective FY 2019, RCE and Serialized filings were reported separately. Prior to FY 2019, RCE and Serialized filing totals were combined.

Data include utility, design, plant, and reissue applications. Country listings include possessions and territories of that country unless listed separately in the table. Data are subject to minor revisions.

² FY 2021 preliminary data should be available in January 2022 at www.uspto.gov and finalized in the FY 2022 PAR.

³ Serialized—A newly filed UPR application that has been assigned a serial number.

⁴ RCE (Request for Continued Examination)—A procedure by which, after the prosecution has been closed by a final rejection, a notice of allowance, etc., the applicant pays a fee and requests that the prosecution of the application be reopened.

⁵ Country of origin information not available.

TABLE 10: PATENTS ISSUED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES^{1, 2} AND TERRITORIES (FY 2017-FY 2021)³

Residence	2017	2018	2019	2020	2021
Total	180,287	177,550	193,373	210,695	198,730
Afghanistan	-	-	-	-	-
Albania	1	_	1	1	2
Algeria	-	2	1	-	2
Andorra	2	3	-	1	1
Angola	-	-	_	-	-
Anguilla	1	_	_	1	_
Antigua and Barbuda	-	_	_	-	_
Argentina	93	83	115	111	124
Armenia	15	8	21	30	20
Aruba	-		3	1	1
Australia	1,964	1,966	2,136	2,298	2,319
Austria	1,615	1,528	1,618	1,650	1,501
Azerbaijan	2	1,328	1,018	1,030	2
Bahamas	5	4	9	6	3
Bahrain	2	4	7	1	4
Bangladesh	7	9	10	3	4
Barbados	3	4	- 10	7	6
Belarus	16	9	14	18	16
Belgium Belize	1,358	1,408	1,447	1,537	1,433
Bermuda	-	- 1	-	2	4
	2	1	4		5
Bolivia	2	1	1	3	3
Bosnia and Herzegovina	2	3			
Brazil	396	442	432	547	507
British Virgin Islands	5	6	4	3	1
Brunei Darussalam	1	2	-	7	4
Bulgaria	43	42	49	56	80
Burkina Faso	-	-	-	-	-
Burundi	-	-	-	1	1
Cabo Verde	-	-	1	-	-
Cambodia	-	1	-	-	-
Cameroon	2	1	3		2
Canada	7,539	7,225	7,790	8,179	7,669
Cayman Islands	12	15	9	14	15
Chad	-	-	-	-	1
Chile	59	58	41	83	79
China (Hong Kong)	892	973	1,073	1,071	922
China (Macau)	31	45	27	26	12
China (People's Republic of)	14,154	16,315	20,836	26,176	29,469
Colombia	31	44	46	51	51
Costa Rica	12	20	25	41	52
Cote d'Ivoire	-	-	-	-	-
Croatia	20	23	22	21	22
Cuba	12	3	5	4	5
Curaçao	-	-	-	-	-
Cyprus	8	13	17	17	14
Czech Republic	263	350	383	380	311
Denmark	1,249	1,270	1,320	1,425	1,377

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TABLE 10: PATENTS ISSUED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES^{1,2} AND TERRITORIES (FY 2017-FY 2021)³ (CONTINUED)

Residence	2017	2018	2019	2020	2021
Dominican Republic	3	5	4	5	3
Ecuador	3	3	3	3	4
Egypt	40	51	45	38	43
El Salvador	1	1	1	-	1
Eritrea	1	-	1	_	<u> </u>
Estonia	30	44	48	46	44
Ethiopia	-	-	-	-	_
Faroe Islands	1	_	_	2	_
Finland	1,730	1,601	1,545	1,641	1,392
France	7,365	6,991	7,532	7,981	6,960
French Polynesia	-	-	1	-	-
Gabon		1	_		
	2		4	3	3
Georgia					
Germany	17,994	17,434	18,758	19,799	17,971
Ghana	-	-	-	1	1
Gibraltar	8	2	2	3	- 107
Greece	117	110	133	137	127
Greenland	-	-	1	-	-
Grenada	-	-	-	1	-
Guadeloupe	-	-	-	-	-
Guatemala	1	4	5	5	9
Guernsey	1	1	-	1	1
Guinea	-	-	1	-	-
Haiti	-	-	-	-	-
Honduras	2	-	-	1	1
Hungary	183	139	145	182	162
Iceland	61	42	50	56	49
India	4,207	4,248	5,075	5,888	6,114
Indonesia	22	9	13	17	34
Iran	33	55	86	113	80
Iraq	1	-	-	1	3
Ireland	611	628	754	930	923
Isle of Man	9	10	5	3	8
Israel	4,304	4,168	4,630	5,011	4,748
Italy	3,209	3,247	3,718	3,913	3,530
Jamaica	8	5	5	10	3
Japan	51,741	50,012	53,172	55,899	48,909
Jersey	7	14	8	33	11
Jordan	11	16	19	15	11
Kazakhstan	2	2	10	5	12
Kenya	5	9	12	26	16
Korea (Democratic People's Rep of)	-	-	-	-	-
Korea (Republic of)	22,689	22,054	22,427	24,218	23,128
Kosovo ⁴	,	,	,	= 1/2.0	1
Kuwait	48	27	44	38	24
Kyrgyzstan	-	-	-	1	-
Laos	-		-	1	_
Latvia	7	8	12	16	20
Lebanon	13	9	25	9	17

TABLE 10: PATENTS ISSUED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES^{1, 2} AND TERRITORIES (FY 2017-FY 2021)³ (CONTINUED)

Residence	2017	2018	2019	2020	2021
Liechtenstein	30	36	28	36	31
Lithuania	22	18	20	17	27
Luxembourg	64	63	58	92	77
Madagascar	-	1	-	1	-
Malawi	-	-		_	-
Malaysia	270	239	296	310	290
Mali		-	1	-	
Malta	14	7	20	17	24
Mauritius	1	2	1	2	1
Mexico	315	385	411	394	337
Moldova	1	2	2	1	4
Monaco	17	15	20	19	15
Mongolia	-	-	1	2	1
Montenegro	-	-	1	_	3
Vioriteriegio	2	3	7	3	8
Myanmar		1	-	1	1
Namibia	5	-	-	2	-
Nepal (Federal Democratic Republic of)		1		1	2
Netherlands	3,132	3,215	3,340	3,552	3,086
New Caledonia	3,132	3,213		3,332	3,000
New Zealand	374	376	435	494	483
				494	483
Nicaragua	2	-	- 1	-	-
Nigeria	2	4	1	2	4
North Macedonia	1	2	1	1	-
Norway	628	636	676	759	691
Oman	4	5	3	2	2
Pakistan	18	16	26	19	14
Panama	9	9	6	5	5
Paraguay	-	1	1	2	1
Peru	7	9	10	14	8
Philippines	66	82	88	71	88
Poland	281	291	337	439	439
Portugal	115	110	151	167	174
Qatar	20	28	33	22	24
Romania	110	96	106	120	114
Russian Federation	569	536	615	711	721
Rwanda	-	-	-	1	-
Saint Kitts and Nevis	-	-	-	1	
Saint Lucia	-	1	-	-	2
Samoa	4	1	1	6	2
San Marino	2	1	1	1	1
Saudi Arabia	541	608	871	1,007	1,224
Senegal	=	-	-	-	-
Serbia	20	21	26	33	34
Seychelles	5	2	-	1	2
Singapore	1,046	1,071	1,103	1,191	1,083
Sint Maarten	-	-	-	-	2
Slovakia	42	40	58	57	51
Slovenia	57	77	79	91	87

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TABLE 10: PATENTS ISSUED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES^{1, 2} AND TERRITORIES (FY 2017-FY 2021)³ (CONTINUED)

Residence	2017	2018	2019	2020	2021
South Africa	216	190	202	221	154
Spain	926	965	1,058	1,187	1,126
Sri Lanka	6	7	10	11	17
Sudan	1	-	-	-	2
Sweden	3,327	3,164	3,321	3,495	3,243
Switzerland	3,024	2,893	3,197	3,394	3,067
Syrian Arab Republic	-	2	1	-	2
Taiwan	12,535	11,424	11,857	13,390	12,648
Tanzania	1	-	-	-	
Thailand	113	114	128	138	156
Trinidad and Tobago	3	3	4	3	3
Tunisia	4	2	5	4	7
Turkey	190	181	252	223	210
Turkmenistan	-	-	1	1	-
Turks and Caicos Islands	2	1	-	-	-
Uganda			1	-	-
Ukraine	82	59	71	100	113
United Arab Emirates	95	100	98	135	120
United Kingdom	7,636	7,549	8,494	8,834	8,215
Uruguay	12	12	5	11	8
Uzbekistan	1	3	-	3	3
Vanuatu	-	1	-	-	-
Venezuela	7	9	10	4	4
Vietnam	21	24	57	41	58
West Bank/Gaza	-	-	-	1	1
Yemen	-	2	-	-	-
Zambia			1	-	-
Zimbabwe	-	-	-	3	1

⁻ Represents zero.

¹ Data include utility, design, plant, and reissue patents.

² Each patent grant is listed under only one country of residence. Country listings include possessions and territories of that country unless separately listed in the table.

³ Past years' data may have been revised from prior-year reports to reflect patent withdrawal information that was updated during the year. It is not uncommon for the withdrawal status of patents issued in prior years to change.

⁴ Countries/territories not previously reported.

TABLE 11: PERCENTAGE OF UTILITY PATENTS ISSUED TO MICRO, SMALL, AND LARGE ENTITIES (FY 2017-FY 2021)

Year of Grant ²	2017	2018	2019	2020	2021
Percentage Micro Entity	2.33%	2.48%	2.49%	2.50%	2.48%
U.S. Origin ¹	4.06%	4.34%	4.22%	4.20%	4.23%
Foreign Origin ¹	0.77%	0.84%	0.94%	1.01%	1.01%
Percentage Small Entity	19.54%	19.86%	19.94%	19.98%	20.76%
U.S. Origin ¹	25.68%	25.91%	25.82%	25.92%	27.02%
Foreign Origin ¹	14.02%	14.49%	14.67%	14.74%	15.42%
Percentage Large Entity	78.13%	77.66%	77.57%	77.52%	76.75%
U.S. Origin ¹	70.26%	69.75%	69.97%	69.88%	68.75%
Foreign Origin ¹	85.21%	84.67%	84.39%	84.25%	83.57%

¹ Patent origin is based on residence of the first-named inventor.

TABLE 12: UNITED STATES GOVERNMENT AGENCY PATENTS 1 (FY 2017-FY 2021)2

Agency or Department	2017	2018	2019	2020	2021	Total
Total	940	953	1,007	965	848	4,713
Agriculture	53	46	40	35	27	201
Commerce	28	28	33	20	27	136
Defense:						
Air Force	48	53	73	79	99	352
Army	139	148	131	137	120	675
Navy	345	341	367	322	277	1,652
National Security Agency (NSA)	1	2	7	6	3	19
Geospatial-Intelligence Agency ⁴	-	-	-	-	1	1
Energy	23	18	29	13	12	95
Environmental Protection Agency	3	4	3	1	7	18
Health and Human Services	135	132	131	121	72	591
Homeland Security (DHS)	2	7	7	12	36	64
Interior	3	5	1	2	-	11
Justice: Office of the Attorney General	-	-	-	-	2	2
National Aeronautics and Space Administration (NASA)	117	118	129	142	108	614
National Science Foundation	6	3	1	2	-	12
Postal Service	20	28	36	50	40	174
State	-	-	-	-	-	0
Transportation	-	-	-	-	-	0
Tennessee Valley Authority	1	-	-	-	-	1
United States ³	3	2	3	8	2	18
Veterans Affairs	13	18	16	15	15	77

⁻ Represents zero.

² FY 2021 filing data is preliminary and will be finalized in the FY 2022 PAR. Prior years may have been updated with final end-of-year numbers.

¹ Data in this table represent utility patents assigned to agencies at the time of patent issue. Data subject to minor revisions.

² Past years' data may have been revised from prior year reports to reflect patent withdrawal information that was updated during the year. It is not uncommon for the withdrawal status of patents issued in prior years to change.

³ No agency or department listed in database.

⁴ Not previously reported.

TABLE 13A: EX PARTE REEXAMINATION (FY 2017-FY 2021)

	2017	2018	2019	2020	2021
Requests Filed, Total*	188	187	167	206	297
By Patent Owner	25	30	29	19	25
By Third Party	163	157	138	187	272
Commissioner Ordered	-				
Determinations on Requests, Total ¹	203	185	151	175	297
Requests Granted:					
By Examiner	188	173	145	167	284
By Petition	4	2	2	3	-
Requests Denied	11	10	5	5	13
Requests Known to Have Related Litigation ¹	100	93	87	94	141
Filings by Discipline, Total ²	191	178	163	197	297
Chemical	38	34	50	51	45
Electrical	63	66	54	65	169
Mechanical	75	71	51	58	54
Design	15	7	8	23	29

⁻ Represents zero.

TABLE 13B: SUPPLEMENTAL EXAMINATION* (FY 2017-FY 2021)

	2017	2018	2019	2020	2021
Supplemental Examinations Filed, Total ¹	60	32	26	46	39
Supplemental Examinations Granted a Filing Date, Total ¹	61	31	23	39	33
Determinations on Supplemental Examinations Granted a Filing Date, Total	61	35	25	39	24
Substantial New Question Found	46	22	20	22	15
Substantial New Question Not Found	15	13	5	17	9
Requests Known to Have Related Litigation ²	5	2	4	3	1
Filings by Discipline, Total	59	31	26	38	33
Chemical	16	15	5	12	17
Electrical	33	11	10	19	12
Mechanical	8	5	11	7	4
Design	2	-	-	-	-

⁻ Represents zero.

^{*} Only represents requests that have received a filing date.

¹ Litigation search numbers were updated to include old pending reexaminations that ultimately require new litigation.

² Filings were updated to include reexams that had not been granted a filing date or had a filing date vacated in FY 20.

Late-filed requests may not have had a determination by the end of the fiscal year. Numbers will be revised in the following year's PAR, where necessary. While the transition to inter partes reexaminations began in FY 2011, no measureable caseload activity began until FY 2013. FY 2013 is the earliest date of activity for this Workload Table.

Filings were updated to include supplemental examinations that had not been granted filing dates or had their filing dates vacated in FY 2020.

² Litigation search numbers were updated to include old pending reexaminations that ultimately require new litigation.

TABLE 14: SUMMARY OF CASES BEFORE THE PATENT TRIAL AND APPEAL BOARD, AS OF SEPTEMBER 30, 2021

Cases	Total
Ex Parte Appeals	
Ex Parte and Reissue Appeals	
Cases Pending as of 9/30/2020*	7,488
Cases Filed during FY 2021	5,521
Cases Disposed during FY 2021	7,340
Total Ex Parte and Reissue Appeals Pending as of 9/30/2021	5,669
Ex Parte Appeal and Reissue Rehearings	
Cases Pending as of 9/30/2021	32
Reexamination Appeals	
Ex Parte Reexamination Appeals	
Cases Pending as of 9/30/2020	8
Cases Filed during FY 2021	35
Cases Disposed during FY 2021	27
Total Ex Parte Reexamination Appeals Pending as of 9/30/2021	16
Inter Partes Reexamination Appeals	
Cases Pending as of 9/30/2020*	10
Cases Filed during FY 2021	6
Cases Disposed during FY 2021	10
Total Inter Partes Reexamination Appeals Pending as of 9/30/2021	6
Supplemental Examination Appeals	
Cases Pending as of 9/30/2020	_
Cases Filed during FY 2021	2
Cases Disposed during FY 2021	1
Total Supplemental Examination Appeals Pending as of 9/30/2021	1
Reexamination Appeals Rehearings	
Cases Pending as of 9/30/2021	7

Represents zero.

^{*} Changes in end-of-FY 2020 data due to internal FY 2021 audit.

TABLE 14: SUMMARY OF CASES BEFORE THE PATENT TRIAL AND APPEAL BOARD, AS OF **SEPTEMBER 30, 2021** (CONTINUED)

rerences	
Cases Pending as of 9/30/2020	10
Cases Declared during FY 2021	8
Cases Disposed during FY 2021	8
Total Interferences Pending as of 9/30/2021	10
ny Smith America Invents Act (AIA) Trials	
r Partes Reviews	
Cases Pending as of 9/30/2020	1,325
Cases Filed during FY 2021	1,308
Cases Reinstituted during FY 2021	_
Cases Disposed during FY 2021	1,389
Total Inter Partes Reviews Pending as of 9/30/2021	1,244
sitional Program for Covered Business Method (TPCBM)	
Cases Pending as of 9/30/2020	20
Cases Filed during FY 2021	_
Cases Disposed during FY 2021	15
Total TPCBM Proceedings Pending as of 9/30/2021	5
Grant Reviews	
Cases Pending as of 9/30/2020	53
Cases Filed during FY 2021	93
Cases Disposed during FY 2021	88
Total Post Grant Reviews Pending as of 9/30/2021	58
vation Proceedings	
Cases Pending as of 9/30/2020	12
Cases Filed during FY 2021	3
Cases Disposed during FY 2021	5
Total Derivation Proceedings Pending as of 9/30/2021	10

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Represents zero.Changes in end-of-FY 2020 data due to internal FY 2021 audit.

TABLE 15: SUMMARY OF TRADEMARK EXAMINING ACTIVITIES (FY 2017-FY 2021)

Item	2017	2018	2019	2020	2021
Applications for Registration					
Applications Including Additional Classes ¹	594,107	638,847	673,233	738,112	943,928
Applications Filed1	435,384	468,926	494,513	553,505	732,007
Disposal of Trademark Applications					
Registrations Including Additional Classes	327,314	367,382	396,836	400,298	434,810
Abandonments Including Additional Classes	187,693	273,808	212,288	247,593	236,282
Trademark First Actions Including Additional Classes	596,678	613,555	711,075	667,616	700,117
Applications Approved for Publication Including Additional Classes	464,806	489,918	552,449	521,700	576,452
Certificates of Registration Issued ²					
1946 Act Principal Register	153,195	179,179	199,223	194,405	237,992
Intent-to-Use (ITU) Statements of Use Registered	79,276	83,606	86,705	90,779	89,642
1946 Act Supplemental Register	10,238	11,023	11,846	10,544	10,180
Total Certificates of Registration	242,709	273,808	297,774	295,728	337,814
• • • • • • • • • • • • • • • • • • •	,				
Renewal of Registration ³					
Section 9 Applications Filed1	79,557	85,563	80,526	76,184	83,716
Section 8 Applications Filed ^{1,4}	79,580	85,571	80,545	76,184	83,717
Registrations Renewed	84,727	90,192	72,270	71,575	65,063
Affidavits, Sec. 8/15					
Affidavits Filed	92,138	96,091	98,234	97,636	108,345
Affidavits Disposed	95,613	97,296	87,817	81,171	94,033
Amendments to Allege Use Filed	8,113	8,089	9,127	8,061	8,703
Statements of Use Filed	83,394	84,939	115,673	122,037	119,309
Notice of Allowance Issued	215,944	232,910	255,609	256,941	223,745
Total Active Certificates of Registration	2,202,390	2,415,550	2,519,866	2,664,627	2,838,435
Pendency—Average Number of Months					
Between Filing and Examiner's First Action	2.7	3.4	2.6	3	6.3
Between Filing, Registration (Use Applications), Abandonments, and Notices of Allowance (NOAs)— Including Suspended and Inter Partes Proceedings	10.9	10.9	10.7	11.1	12.5
Between Filing, Registration (Use Applications), Abandonments, and NOAs—Excluding Suspended and Inter Partes Proceedings	9.5	9.6	9.3	9.5	11.2

[&]quot;Applications filed" refers simply to the number of individual trademark applications received by the USPTO. There are, however, 47 different classes of items in which a trademark may be registered. An application must request registration in at least one class, but may request registration in multiple classes. Each class application must be individually researched for registerability. "Applications filed, including additional classes" reflects this fact, and therefore more accurately reflects the Trademark business workload. With the exception of Certificates of Registration, Renewal of Registration, Affidavits filed under Section 8/15 and 12(c), the workload count includes extra classes.

With the exception of Certificates of Registration, Renewals of Registration, and Affidavits filed under section 8/15 and 12(c), the workload count includes extra classes.

Renewal of Registration is required beginning 10 years following registration, concurrent with 20-year renewals coming due.

Since the implementation of the Trademark Law Treaty on October 30, 1999 (FY 2000), a Section 8 Affidavit is required for filing a renewal.

TABLE 16: TRADEMARK APPLICATIONS FILED FOR REGISTRATION AND RENEWAL AND **TRADEMARK AFFIDAVITS FILED (FY 2001-FY 2021)**

Year	For Registration	For Renewal ¹	Section 8 Affidavit
2001	296,388	24,174	33,547
2002	258,873	34,325	39,484
2003	267,218	35,210	43,151
2004	298,489	32,352	41,157
2005	323,501	39,354	47,752
2006	354,775	36,939	48,444
2007	394,368	40,786	49,241
2008	401,392	42,388	68,470
2009	352,051	43,953	65,322
2010	368,939	48,214	61,499
2011	398,667	49,000	65,771
2012	415,026	63,636	76,646
2013	433,654	74,280	93,174
2014	455,017	67,865	107,823
2015	503,889	63,981	88,486
2016	530,270	72,744	87,447
2017	594,107	79,557	92,138
2018	638,847	85,563	96,091
2019	673,233	80,526	98,234
2020	738,112	76,184	97,636
2021	943,928	83,716	108,345

¹ Renewal of registration term changed in November 16, 1989 (FY1990) with the implementation of the Trademark Law Reform Act (Pub. I. No. 100-667).

TABLE 17: SUMMARY OF PENDING TRADEMARK APPLICATIONS (FY 2021)

Stage of Processing	Application Files	Classes
Pending Applications, Total	914,432	1,263,878
In Preexamination Processing	377,339	477,902
Under Examination, Total	393,997	601,650
Applications Under Initial Examination	134,327	198,825
Amended, Awaiting Action by Examiner	126,071	187,691
Awaiting First Action by Examiner	8,256	11,134
Intent-to-Use Applications Pending Use	189,631	294,029
Applications Under Second Examination	14,870	21,364
Administrative Processing of Statements of Use	33	38
Undergoing Second Examination	4,389	6,059
Amended, Awaiting Action by Examiner	10,448	15,267
Other Pending Applications ¹	55,169	87,432
In Postexamination Processing ²	143,096	184,326

Includes applications pending before the Trademark Trial and Appeal Board and suspended cases.
 Includes all applications in all phases of publication, issue, and registration.

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TABLE 18: TRADEMARKS REGISTERED, RENEWED, AND PUBLISHED UNDER SECTION 12(C)¹ (FY 2001-FY 2021)

Year	Certificates of Registration Issued	Renewed ²	Registrations (Including Classes)	
2001	102,314	31,477	124,502	
2002	133,225	29,957	164,457	
2003	143,424	34,370	185,182	
2004	120,056	34,735	155,991	
2005	112,495	32,279	143,396	
2006	147,118	37,305	188,899	
2007	150,064	47,336	194,327	
2008	209,904	42,159	274,250	
2009	180,520	42,282	241,637	
2010	164,330	46,734	221,090	
2011	177,661	44,873	237,586	
2012	182,761	59,871	243,459	
2013	193,121	63,709	259,681	
2014	206,555	56,166	279,282	
2015	208,660	58,284	282,091	
2016	227,407	62,604	309,188	
2017	242,709	84,727	327,314	
2018	273,808	90,192	367,382	
2019	297,774	72,270	396,836	
2020	295,728	71,575	400,298	
2021	337,814	65,063	434,810	

¹ Includes withdrawn numbers.

Includes renewals that were affected by the reduction of the renewal term of registration from 20 years to 10 years as a result of the implementation on November 16, 1989 (FY 1990), of the Trademark Law Reform Act (Public Law No. 100–667).

TABLE 19: TRADEMARK APPLICATIONS FILED BY RESIDENTS OF THE UNITED STATES (FY 2021)

State/Territory	2021	State/Territory	2021	State/Territory	2021
Total	566,737	Kentucky	3,768	Oklahoma	2,545
		Louisiana	3,408	Oregon	6,283
Alabama	3,212	Maine	1,067	Pennsylvania	14,921
Alaska	460	Maryland	10,743	Rhode Island	1,606
Arizona	10,437	Massachusetts	13,829	South Carolina	5,354
Arkansas	2,086	Michigan	12,379	South Dakota	752
California	116,375	Minnesota	8,386	Tennessee	8,351
Colorado	14,203	Mississippi	1,330	Texas	42,252
Connecticut	6,558	Missouri	6,019	Utah	7,407
Delaware	7,644	Montana	1,431	Vermont	978
District of Columbia	4,429	Nebraska	1,653	Virginia	12,288
Florida	46,602	Nevada	9,059	Washington	12,142
Georgia	20,184	New Hampshire	1,712	West Virginia	572
Hawaii	1,864	New Jersey	19,970	Wisconsin	5,999
Idaho	1,753	New Mexico	1,565	Wyoming	3,013
Illinois	20,078	New York	51,945	Puerto Rico	1,295
Indiana	5,781	North Carolina	13,075	U.S. Virgin Islands	121
lowa	2,224	North Dakota	554	U.S. Pacific Islands ¹	45
Kansas	2,521	Ohio	12,100	Not Specified ²	409

Represents residents of American Samoa, Guam, and miscellaneous U.S. Pacific Islands.
 No State indicated in database (includes Army Post Office filings).

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TABLE 20: TRADEMARKS REGISTERED TO RESIDENTS OF THE UNITED STATES¹ (FY 2021)

State/Territory	2021	State/Territory	2021	State/Territory	2021
Total	181,125	Kentucky	1,249	Oklahoma	862
		Louisiana	1,006	Oregon	2,114
Alabama	1,088	Maine	422	Pennsylvania	4,996
Alaska	121	Maryland	3,245	Rhode Island	430
Arizona	3,350	Massachusetts	4,258	South Carolina	1,649
Arkansas	619	Michigan	3,820	South Dakota	183
California	36,168	Minnesota	3,021	Tennessee	2,823
Colorado	4,501	Mississippi	406	Texas	13,372
Connecticut	2,060	Missouri	2,460	Utah	2,284
Delaware	1,762	Montana	524	Vermont	289
District of Columbia	1,446	Nebraska	599	Virginia	4,081
Florida	14,859	Nevada	2,907	Washington	3,945
Georgia	6,339	New Hampshire	539	West Virginia	158
Hawaii	494	New Jersey	6,245	Wisconsin	2,081
Idaho	674	New Mexico	485	Wyoming	826
Illinois	6,791	New York	16,578	Puerto Rico	372
Indiana	1,863	North Dakota	139	U.S. Pacific Islands ²	13
Iowa	879	North Carolina	4,321	Not Specified ³	160
Kansas	803	Ohio	4,421		

¹ When a trademark is registered, the trademark database is updated to indicate the home state of the entity that registered the trademark.

² Represents residents of American Samoa, Guam, and miscellaneous U.S. Pacific Islands.

³ No State indicated in database (includes Army Post Office filings).

TABLE 21: TRADEMARK APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021)

Residence	2017	2018	2019	2020	2021
Total	180,487	192,906	216,770	237,403	377,191
Afghanistan	1	3	3	-	1
Albania	2	4	15	15	16
Algeria	2	-	9	1	7
Andorra	17	2	20	14	23
Angola	-	1	1	-	2
Anguilla	14	5	5	5	11
Antigua and Barbuda	7	13	1	2	33
Argentina	277	243	374	318	368
Armenia	38	46	36	39	57
Aruba	18	3	5	14	12
Australia	6,600	7,275	7,303	7,358	7,794
Austria	1,495	1,719	1,550	1,721	1,473
Azerbaijan	1	13	17	16	12
Bahamas	149	163	113	87	94
Bahrain	11	12	32	23	23
Bangladesh	10	32	17	13	31
Barbados	110	138	217	102	283
Belarus	70	41	84	143	136
Belgium	2,069	1,340	1,245	1,312	1,310
Belize	54	79	108	60	65
Benin	-	2	7	-	-
Bermuda	199	201	228	140	133
Bolivia	7	15	6	7	7
Bosnia and Herzegovinia	1	5	8	7	20
Botswana	-	135	-	-	-
Brazil	864	791	845	650	831
British Virgin Islands	899	888	874	605	578
Brunei Darussalam	6	5	2	-	-
Bulgaria	297	277	384	310	441
Burkina Faso	-	-	-	-	-
Cabo Verde	-	-	-	2	2
Cambodia	1	3	5	6	16
Cameroon	4	3	2	1	-
Canada	13,855	15,470	17,764	16,431	19,912
Cayman Islands	1,008	1,068	973	800	833
Chile	288	211	243	322	446
China (Hong Kong)	4,123	4,563	4,383	4,168	5,340
China (Macau)	21	58	20	40	44
China (People's Republic of)	50,942	57,879	76,334	102,593	228,445

TABLE 21: TRADEMARK APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019	2020	2021
Colombia	316	297	371	332	492
Cook Islands	8	3	-	1	15
Costa Rica	95	62	93	68	63
Croatia	72	71	99	79	107
Cuba	18	10	9	9	4
Curação	89	23	45	35	44
Cyprus	480	494	571	601	634
Czech Republic	413	411	516	494	363
Denmark	1,510	1,533	1,511	1,426	1,801
Dominica	1	4	4	-	-
Dominican Republic	104	91	105	96	147
Ecuador	57	88	48	47	60
Egypt	15	45	64	35	27
El Salvador	48	57	60	40	23
Equatorial Guinea	-	-	-	2	-
Estonia	144	226	247	287	331
Eswatini	2	-	-	-	4
Ethiopia	-	4	-	-	2
Faroe Islands	3	-	-	-	1
Fiji	10	3	4	3	7
Finland	1,468	1,253	1,199	1,159	1,213
France	7,953	7,642	8,660	7,259	6,529
French Polynesia	6	12	2	3	1
Gabon	-	-	1	-	-
Georgia	32	31	27	31	47
Germany	14,617	15,095	14,359	13,432	13,998
Ghana	-	2	4	9	2
Gibraltar	45	65	59	96	51
Greece	252	234	238	180	227
Greenland	-	-	-	-	2
Grenada	-	2	3	-	-
Guadeloupe	-	1	-	2	1
Guatemala	53	83	72	81	80
Guernsey	33	43	45	34	20
Guinea	-	-	4	-	1
Guyana	4	1	-	13	5
Haiti	-	-	5	7	5
Honduras	13	19	40	29	43
Hungary	178	269	207	151	210
Iceland	92	157	161	90	112

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TABLE 21: TRADEMARK APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019	2020	2021
India	1,100	1,238	1,558	1,310	1,713
Indonesia	90	96	63	151	107
Iran	41	35	16	7	24
Iraq	-	1	-	14	6
reland	1,141	1,247	1,190	1,168	1,615
Isle of Man	54	157	67	55	58
srael	1,698	2,082	2,047	1,922	2,040
taly	5,759	5,705	5,715	5,104	5,029
vory Coast	3	-	-	3	4
Jamaica	32	41	35	37	60
lapan	7,340	7,883	8,779	8,671	7,982
lersey	-	-	-	47	86
lordan	35	33	44	56	85
Kazakhstan	39	15	27	55	32
Kenya	7	7	24	21	11
(Orea (Democratic Republic of)	-	5	2	2	4
Korea (Republic of)	4,529	5,011	5,649	6,557	8,587
Kuwait	37	79	34	51	43
Kyrgyzstan	2	-	4	3	1
aos	-	-	1	1	-
atvia	81	148	101	125	114
Lebanon	63	87	72	33	29
iberia	1	-	1	2	20
Liechtenstein	129	129	113	174	153
Lithuania	131	150	138	149	222
Luxembourg	1,374	1,094	793	713	639
Madagascar	4	-	1	29	-
Malaysia	195	208	197	203	299
Malawi	-	-	-	2	-
Maldives	-	-	-	1	1
Malta	311	353	365	655	594
Marshall Island	31	35	19	17	19
Martinique	-	-	-	-	2
Mauritania	2	-	-	-	-
Mauritius	78	80	89	110	135
Mexico	2,014	2,260	2,393	2,413	2,708
Micronesia	-	2	-	-	1
Moldova	25	27	41	40	33
Monaco	208	187	171	264	294
Mongolia	6	7	14	7	10

TABLE 21: TRADEMARK APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019	2020	2021
Montenegro	31	6	6	1	10
Montserrat	-	2	-	1	-
Morocco	93	66	68	69	105
Mozambique	-	-	-	-	1
Myanmar	-	1	-	18	-
Namibia	272	131	3	1	1
Nepal	1	2	5	-	-
Netherlands	3,320	3,539	2,983	3,023	2,922
New Zealand	1,016	1,064	1,253	1,234	1,240
Nicaragua	11	6	13	23	10
Viger	-	-	-	-	4
Vigeria	8	20	20	7	36
North Macedonia	34	17	16	29	58
Norway	815	1,048	953	752	1,094
Oman	3	9	6	6	16
Pakistan	58	42	74	37	83
Palau	-	4	-	-	-
Panama	156	175	137	164	197
Papua New Guinea	-	-	-	-	-
Paraguay	7	46	7	5	7
Peru Peru	86	134	102	104	145
Philippines	111	155	137	110	136
Poland	723	659	640	581	735
Portugal	428	436	331	466	310
Qatar	24	36	53	64	52
Romania	290	440	299	299	340
Russian Federation	1,020	1,369	1,377	1,366	1,413
Rwanda	-	1	-	1	-
Saint Kitts and Nevis	8	53	32	60	65
Saint Lucia	25	14	22	32	33
Saint Vincent and the Grenadines	6	4	3	19	4
Samoa	28	33	22	16	9
San Marino	14	11	15	10	19
São Tomé and Príncipe	-	-	-	-	-
Saudi Arabia	104	122	111	98	160
Scotland	41	90	61	-	-
Senegal	-	3	4	2	3
Serbia	74	70	139	105	75
Seychelles	44	99	63	66	80
Singapore	1,442	1,640	1,707	1,980	2,712

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TABLE 21: TRADEMARK APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019	2020	2021
Sint Maarten	4	28	4	2	-
Slovakia	148	121	122	125	112
Slovenia	148	189	283	175	147
South Africa	218	308	274	277	243
Spain	2,723	2,462	2,765	2,637	2,854
Sri Lanka	29	61	29	25	45
Suriname	1	5	1	2	1
Sweden	2,694	2,466	2,403	2,730	2,938
Switzerland	5,741	6,433	6,922	6,128	6,167
Syria	45	9	9	12	21
Taiwan	1,734	1,965	2,004	2,142	2,100
Tanzania	4	6	12	-	2
Thailand	238	321	371	335	362
Timor-Leste	-	-	-	-	-
Togo	-	-	-	-	-
Trinidad and Tobago	32	21	17	58	18
Tunisia	26	12	25	7	9
Turkey	1,059	1,283	1,413	1,335	1,592
Turkmenistan	-	-	1	-	-
Turks and Caicos Islands	40	15	14	11	22
Tuvalu	-	-	-	-	2
Uganda	-	3	-	3	1
Ukraine	376	450	579	608	715
United Arab Emirates	461	414	391	507	579
United Kingdom	15,953	14,925	16,116	15,288	17,971
Uruguay	58	62	67	55	72
Uzbekistan	-	-	2	4	3
Vanuatu	2	-	4	6	1
Vatican City	-	-	-	6	-
Venezuela	59	38	32	34	23
Vietnam	220	254	384	495	855
West Bank/Gaza Strip	-	-	5	7	-
Yemen	2	4	9	5	27
Zambia	-	-	-	-	2
Zimbabwe	2	-	-	4	1
Other ¹	26	65	21	3	1

⁻ Represents zero.

¹ Country of origin information not available or not indicated in database (includes African Regional Intellectual Property Organization filings).

TABLE 22: TRADEMARKS REGISTERED TO RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021)

Residence	2017	2018	2019	2020	2021
Total	65,636	85,182	96,559	99,683	156,689
 Afghanistan	1	1	1	-	-
Albania	2	6	3	8	6
Algeria	-	-	1	1	-
Andorra	9	-	4	6	4
Angola	-	-	1	-	-
Anguilla	5	2	2	4	6
Antigua and Barbuda	1	-	1	2	3
Argentina	101	159	125	125	125
Armenia	13	17	20	15	39
Aruba	2	1	1	1	2
Australia	2,016	2,388	2,733	2,971	2,623
Austria	467	454	494	485	425
Azerbaijan	3	1	4	9	4
Bahamas	51	36	50	-	20
Bahrain	7	2	6	12	2
Bangladesh	2	13	12	9	6
Barbados	38	44	45	42	59
Belarus	13	18	27	41	53
Belgium	398	567	522	481	415
Belize	18	23	11	18	26
Benin	-	-	-	-	1
Bermuda	100	70	71	68	40
Bhutan	-	-	-	-	-
Bolivia	2	2	4	8	1
Bosnia and Herzegovina	3	1	-	1	3
Botswana	-	_	_	_	_
Brazil	301	333	361	347	308
British Virgin Islands	426	280	325	230	184
Brunei Darussalam	5	6	2	-	-
Bulgaria	55	109	86	133	123
Burkina Faso	-	_	_	_	_
Burundi	-	_	_	_	_
 Cambodia	1	_	3	4	3
Cameroon	-	2	1	_	_
Canada	4,739	4,827	5,131	5,610	5,004
Cabo Verde	-	_	-	1	-
Cayman Islands	202	224	271	230	177
Chile	109	131	134	117	139
China (Hong Kong)	1,504	1,859	2,110	2,005	2,320
China (Macau)	-	-	-	-	11
China (People's Republic of)	23,893	38,399	47,319	48,766	110,563
Colombia	142	147	162	167	111
Congo (DRC)	-	-	-	-	-

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TABLE 22: TRADEMARKS REGISTERED TO RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019	2020	2021
Cook Islands	1	2	-	-	-
Costa Rica	22	31	30	29	38
Croatia	17	20	22	25	28
Cuba	11	5	5	2	4
Curacao	16	30	20	8	8
Cyprus	114	186	169	167	173
Czech Republic	129	142	133	154	150
Denmark	442	523	491	482	438
Djibouti	-	-	-	-	-
Dominica	2	-	3	1	1
Dominican Republic	56	44	53	55	44
Ecuador	17	30	40	34	26
Egypt	6	6	9	13	13
El Salvador	30	30	40	30	17
Equatorial Guinea	-	-	-	-	1
Estonia	40	61	82	73	95
Eswatini	-	-	-	2	1
Ethiopia	-	2	1	1	-
Faroe Islands	-	-	-	-	-
Fiji	3	3	2	4	3
Finland	330	423	352	377	364
France	2,455	2,697	2,563	2,639	2,082
French Guiana	_	-	-	-	-
French Polynesia	2	3	3	3	-
Gabon	-	-	-	_	-
Georgia	9	14	18	14	12
Germany	3,978	4,312	4,352	4,379	3,778
Ghana	-	1	1	-	4
Gibraltar	28	44	50	20	20
Greece	54	83	79	84	48
Greenland	-	1	-	-	2
Grenada	-	-	-	2	-
Guatemala	15	-	-	38	36
Guernsey	13	7	14	16	20
Guinea	-	-	-	-	-
Guinea-Bissau	-	-	-	-	-
Guyana	1	3	-	1	-
Haiti	1	-	2	3	3
Honduras	3	2	10	9	15
Hungary	41	63	62	74	34
Iceland	29	33	28	56	34
India	386	480	584	668	557
	28	20	45	35	51
Indonesia	20	20	45	33	31

TABLE 22: TRADEMARKS REGISTERED TO RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019	2020	2021
Iraq	-	3	-	-	5
Ireland	346	444	495	444	414
Isle of Man	17	35	19	24	12
Israel	574	879	1,019	1,027	862
Italy	1,928	2,309	2,363	2,320	1,972
Ivory Coast (Cote d'Ivoire)	3	-	-	3	1
Jamaica	21	17	13	13	7
Japan	2,763	2,929	3,203	3,372	3,092
Jordan	25	26	16	20	28
Kazakhstan	8	5	14	11	8
Kenya	7	1	3	7	5
Korea (Democratic Republic of)	-	2	2	2	1
Korea (Republic of)	2,316	2,289	2,629	3,072	3,068
Kuwait	6	11	11	17	23
Kyrgyzstan	-	1	-	1	1
Laos (Lao PDR)	-	-	-	-	1
Latvia	26	44	50	48	49
Lebanon	29	27	28	24	12
Liberia	1	-	-	1	-
Liechtenstein	35	41	46	52	46
Lithuania	38	46	66	79	58
Luxembourg	388	369	340	275	210
Macao	14	31	10	11	11
Madagascar	-	-	-	2	-
Malawi	-	-	-	-	-
Malaysia	61	100	88	100	76
Mali	-	102	-	-	-
Malta	107	-	114	141	152
Martinique	-	-	-	-	-
Marshall Islands	6	12	7	17	7
Mauritius	20	19	12	26	18
Mexico	982	1,020	1,106	1,051	938
Micronesia	-	-	-	-	-
Moldova	7	9	15	12	15
Monaco	33	38	36	39	40
Mongolia	1	2	5	2	2
Montenegro	1	21	23	2	-
Montserrat	-	-	1	-	-
Morocco	13	44	25	25	15
Mozambique	-	1	-	-	1
Myanmar	-	-	1		-
Namibia	1	-	1	3	-
Nauru	-	-	-	-	-
Nepal	_	1	1	_	1

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TABLE 22: TRADEMARKS REGISTERED TO RESIDENTS OF FOREIGN COUNTRIES AND TERRITORIES (FY 2017-FY 2021) (CONTINUED)

Residence	2017	2018	2019	2020	2021
Netherlands	951	1,207	1,207	1,163	1,061
New Zealand	353	434	472	505	510
Nicaragua	15	8	12	3	3
Nigeria	3	8	9	1	7
Niue	-	_	-	-	-
North Macedonia (Republic of)	4	7	3	11	4
Norway	182	249	273	261	256
Oman	1	5	5	7	6
Pakistan	20	24	18	37	15
Panama	66	68	76	67	75
Papua New Guinea	-	_	8	-	-
Paraguay	2	2	_	4	1
Peru	33	33	68	42	42
Philippines	47	61	58	48	36
Poland	167	206	202	185	191
Portugal	172	189	188	171	138
Qatar	23	8	14	18	10
Romania	64	179	229	148	139
Russian Federation	215	322	356	435	419
Rwanda				433	1
Saint Kitts and Nevis	- 8	-	14	16	28
		8	7		
Saint Lucia	29	9		8	11
Saint Vincent and the Grenadines	2	2	3	3	2
Samoa	8	-	10	12	5
San Marino	12	6	7	2	3
Saudi Arabia	31	40	42	39	32
Senegal	-	-	1	4	1
Serbia	7	22	24	21	17
Seychelles	23	19	19	47	20
Sierra Leone	-	-	-	-	1
Singapore	431	524	524	611	681
Sint Maarten	-	5	3	-	-
Slovakia	45	46	42	47	39
Slovenia	38	60	56	69	53
South Africa	97	89	124	99	108
Spain	1,086	1,140	1,124	1,207	1,095
Sri Lanka	7	26	17	12	20
Sudan	-	-	-	-	-
Suriname					1
Swaziland	-	1	-	-	-
Sweden	749	845	921	885	789
Syria	5	7	5	1	6
Taiwan	921	1,002	1,094	1,129	969
Tajikistan	-	-	-	-	1
Tanzania	-	-	4	2	-

TABLE 22: **TRADEMARKS REGISTERED TO RESIDENTS OF FOREIGN COUNTRIES (FY 2017-FY 2021)** *(CONTINUED)*

Residence	2017	2018	2019	2020	2021
Thailand	73	101	152	185	145
Timor-Leste	-	-	-	-	-
Togo	-	-	-	-	-
Trinidad and Tobago	8	7	15	4	14
Tunisia	2	9	5	12	1
Turkey	350	360	508	498	492
Turks and Caicos Islands	21	16	3	8	6
Uganda	-	2	1	1	1
Ukraine	70	200	232	289	266
United Arab Emirates	134	128	151	146	139
United Kingdom	4,552	5,020	4,969	5,045	4,623
Uruguay	25	20	25	23	24
Uzbekistan	-	-	-	1	1
Vanuatu	-	1	-	1	2
Vatican City/Holy See	-	3	1	-	1
Venezuela (Bolivarian Republic of)	41	33	25	21	18
Vietnam	68	117	120	232	216
West Bank /Gaza Strip/PNA	-	-	-	1	5
Yemen	-	-	5	5	2
Zambia	-	-	-	-	-
Zimbabwe	1	2	-	-	-
Other ¹	1	25	22	7	7

¹ Country of origin information not available or not indicated in database (includes African Regional Intellectual Property Organization filings).

TABLE 23: SUMMARY OF CONTESTED TRADEMARK CASES (WITHIN THE USPTO, AS OF SEPTEMBER 30, 2021)

Activity	Ex Parte	Opposition	Cancellations	Concurrent Use	Interference	Total
Cases Pending as of 9/30/2020, Total	2,013	5,574	2,082	25	-	9,694
Cases Filed during FY 2021	3,531	6,669	2,400	30	-	12,630
Disposals during FY 2021, Total	3,663	6,759	2,344	23	-	12,789
Before Oral Hearing or Briefing	3,167	6,638	2,293	23	-	12,121
After Briefing (No Oral Hearing)	447	98	40	-	-	585
After Oral Hearing	49	23	11	-	-	83
Cases Pending as of 9/30/2020, Total	1,881	5,484	2,138	32	-	9,535
Awaiting Decision	66	18	9	-	-	93
In Process before Hearing or Final Briefing ¹	1,815	5,466	2,129	32	-	9,442
Requests Made for Extension of Time to Oppose in FY 2020	-	17,200	-	-	-	17,200

¹ Includes suspended cases.

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⁻ Represents zero.

TABLE 24: ACTIONS ON PETITIONS TO THE DIRECTOR OF THE U.S. PATENT AND TRADEMARK OFFICE (FY 2017-FY 2021)

Nature of Petition	2017	2018	2019	2020	2021
Patent Matters					
Actions on Patent Petitions, Total	47,678	48,063	48,373	51,856	49,715
Acceptance of:					
Late Assignments	735	580	635	651	483
Late Issue Fees	2,702	2,543	2,678	3,046	3,145
Late Priority Papers	371	242	285	351	446
Access	4	3	1	-	-
Certificates of Correction	22,765	26,363	23,406	24,246	23,010
Deferment of Issue	20	18	7	11	7
Entity Status Change	2,542	2,657	3,008	3,900	2,600
Filing Date	117	66	68	69	68
Maintenance Fees	2,343	2,374	2,460	2,598	3,138
Revivals	7,811	6,249	6,258	7,242	7,556
Rule 47 (37 CFR 1.47)	94	45	32	26	28
Supervisory Authority	440	362	446	441	738
Suspend Rules	146	3	71	118	92
Withdrawal from Issue	5,605	5,225	7,113	7,738	7,048
Withdraw Holding of Abandonment	1,983	1,333	1,905	1,419	1,356
Late Benefit or Priority Claim	5,095	3,326	2,922	2,960	2,939
Withdraw as Attorney	3,286	2,196	3,693	1,957	1,719
Matters Not Provided For (37 CFR 1.182)	2,376	1,768	1,762	2,043	1,884
To Make Special	20,906	21,257	24,015	24,684	25,469
Patent Term Adjustment/Extension	507	390	448	556	378

TABLE 24: ACTIONS ON PETITIONS TO THE DIRECTOR OF THE U.S. PATENT AND TRADEMARK OFFICE (FY 2017-FY 2021) (CONTINUED)

Nature of Petition	2017	2018	2019	2020	2021
Trademark Matters					
Actions on Trademark Petitions, Total	31,277	37,740	35,097	36,495	39,440
Filing Date Restorations ¹	6	10	8	13	38
Inadvertently Issued Registrations	96	117	105	123	211
Letters of Protest	2,726	3,385	4,106	3,534	3,756
Madrid Petitions	88	80	99	116	231
Make Special	539	817	648	696	834
Reinstatements ²	215	167	202	197	357
Revivals					
Reviewed on Paper	881	1,415	687	993	1,250
Granted Electronically ³	22,610	26,108	23,862	25,426	26,063
Waived Fees and Refunds	14	13	5	8	8
Miscellaneous Petitions to the Director	1,335	1,371	1,453	1,354	2,366
Board Matters	24	31	24	20	17
Post Registration Matters	315	698	1,181	1,162	1,509
Post Publication Amendments	2,428	3,528	2,717	2,853	2,800
Petitions Awaiting Action as of 9/30/2020					
Trademark Petitions Awaiting Response	42	35	-	-	-
2.66 Petitions ⁴	-	-	70	99	62
2.146 Petitions ⁴	-	-	99	105	59
Trademark Petitions to Revive⁵	49	350	-	-	-
2.66 Petitions ⁴	-	-	36	230	36
2.146 Petitions ⁴	-	-	425	1,099	973
Trademark Pending Filing Date Issues	-	-	-	-	-

⁻ Represents zero.

¹ Trademark applications that are entitled to a particular filing date based on clear evidence of error by Trademarks.

² Trademark applications restored to pendency (inadvertently abandoned by Trademarks).

³ The petition to revive numbers were not separated into two categories (paper versus electronic) prior to 2006.

⁴ Petitions to the Director made under Trademark Rules 2.66 and 2.146 have been counted separately.

⁵ Prior to 2018, petitions in this category were designated as "Trademark Petitions Awaiting Action."

TABLE 25: CASES IN LITIGATION (SELECTED COURTS OF THE UNITED STATES, **AS OF SEPTEMBER 30, 2021)**

Cases	Patents	Trademarks	Office of Enrollment and Discipline	Total
U.S. District Courts				
Civil Actions				
Pending as of 9/30/2020, Total	44	4	1	49
Filed during FY 2021	18	4	2	24
Disposals, Total	10	5	-	15
Affirmed	-	-	-	-
Affirmed-in-Part	-	-	-	-
Reversed	-	-	-	-
Remanded	-	1	-	1
Dismissed	5	2	-	7
Summary Judgment Granted (USPTO)	5	2	-	7
Summary Judgment Granted (Opposing Party)	-	-	-	-
Transfer	-	-	-	-
Cases Pending before the U.S. District Courts as of 9/30/2021, Total	52	3	3	58
United States Courts of Appeals ¹	32	<u> </u>	3	30
Ex Parte Cases				
Pending as of 9/30/2020, Total	49	6	-	55
Filed During FY 2021	41	5	-	46
Disposals, Total	58	6	-	64
USPTO Affirmed	34	3		37
Affirmed-in-Part	4	-	-	4
District Court Affirmed	1	_	-	4 1
District Court Affirmed District Court Reversed	-	-	-	-
		-		
Reversed	-	-	-	-
Reversed-in-Part	-	-	-	-
Remanded	7	1	-	8
Dismissed	10	2	-	12
Transfer	1	-	-	1
Mandamus Denied	1	-	-	1
Mandamus Granted	-	-	-	-
Withdrawn	-	-	-	-
Ex Parte Cases Pending as of 9/30/2021, Total	32	5	-	37
Intervention Cases				
Intervened Cases				
Pending as of 9/2020, Total	77	5	-	82
Filed during FY 2021	132	2	-	134
Disposals, Total ²	97	7	-	104
USPTO Affirmed	43	3	-	46
Affirmed-In-Part	5	-	-	5
Reversed	2	-	-	2
Reversed-in-Part	-	-	-	-
Remanded	11	-	-	11
Remanded-in-Part	-	-	-	-
Dismissed	27	4	-	31
Vacated	-	-	-	-
Withdrawn	9	-	-	9
Intervention Cases Pending as of 9/30/2021, Total	112	-	-	112

Includes Federal Circuit and Other Appellate Courts.
 Includes Consolidated Cases.

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TABLE 25: CASES IN LITIGATION (SELECTED COURTS OF THE UNITED STATES, AS OF SEPTEMBER 30, 2021) (CONTINUED)

Cases	Patents	Trademarks	Office of Enrollment and Discipline	Total
Inter Partes Cases				
Pending as of 9/30/2020, Total	305	12	-	317
Filed during FY 2021	393	22	-	415
Disposals, Total ³	411	13	-	424
Inter Partes Cases Pending as of 9/30/2021, Total	287	21	-	308
Cases Pending Before the U.S. Courts of Appeals (Ex Parte Intervention and Inter Partes) as of 9/30/2021, Total	431	26	-	457
Supreme Court				
Ex Parte Cases				
Pending as of 9/30/2020, Total	15	-	2	17
Filed during FY 2021	19	4	-	23
Disposals, Total	27	1	2	30
Cases Pending before the Supreme Court as of 9/30/2021, Total	7	3	-	10

 $^{{\}tt 3\ Breakouts\ Not\ Shown\ -\ Incompatible\ Reporting\ Methods}.$

TABLE 26: PATENT CLASSIFICATION ACTIVITY (FY 2017-FY 2021)

Activity	2017	2018	2019	2020	2021
Subgroups Established in the Cooperative Patent Classification System	1,336	2,438	1,757	2,411	-
Subclasses Established in the United States Patent Classification System	-	-	-	-	-
Number of Reclassified CPC Patent Families in the Cooperative Patent Classification System	68,579	11,821	71,888	154,337	118,467
Number of Reclassified United States Patent Classification Documents	-	-	-	-	-

⁻ Represents zero.

TABLE 27: SCIENTIFIC AND TECHNICAL INFORMATION CENTER ACTIVITY (FY 2021)

Activity	Quantity
Prior Art Search Services Provided	
Genetic Sequence Searches Requested	7,534
Genetic Sequence IDs Completed	42,742
Submissions in Computer Readable Form (CRF) Reviewed	26,808
PLUS Searches Completed	33,871
Foreign Patent Searches Completed	3,911
Text and Structure Searches Completed ¹	11,485
Document Delivery Services Provided	
Document Delivery/Interlibrary Loan Requests Processed	9,799
Copies of Foreign Patents Provided	3,462
Information Assistance and Automation Services	
One-on-One Examiner Information Assistance	734
Patents Employee Attendance at STIC-Led PTA and OPT classes	2,677
Patents Employee Attendance at STIC-Led Group Instruction	5,528
Foreign Patents Assistance for Examiners and Public	4,296
Translation Services Provided for Examiners	
Written Translations of Documents	1,222
Documents Orally Translated ²	6,081
Number of Words Translated (Written)	4,236,767
Foreign Patent Services Provided for Examiners	
Machine Translations	5,954
Manual Machine Translations	385
Total Number of Examiner Service Contacts	166,489
Collection Usage and Growth	
Non-Patent Literature (NPL) Print/Electronic Collection Usage	5,141,312
Print Books/Subscriptions Purchased	32,600
Full-Text Electronic Journal Titles Available	61,719
Full-Text Electronic Book Titles Available	585,399
NPL Databases Available for Searching (Estimated)	276

Commercial database searches completed.
 Includes orally translated requests for Trademarks.

TABLE 28: END OF YEAR PERSONNEL¹ (FY 2017-FY2021)

Activity	2017	2018	2019	2020	2021
Business Lines					
Personnel by Business Lines, Total	12,588	12,579	12,652	12,928	12,963
Patents	11,453	11,256	11,395	11,668	11,621
Trademarks	1,135	1,323	1,257	1,260	1,342
Examination Staff					
Patent Examiners	8,147	8,185	8,296	8,434	8,073
Utility, Plant, and Reissue Examiners	7,961	8,007	8,125	8,230	7,840
Design Examiners	186	178	171	204	233
Patent Examiner Attrition Rate	3.00%	2.80%	3.10%	2.90%	4.10%
Trademark Examining Attorneys, Total	549	579	627	622	662
Trademark Examining Attorneys Attrition Rate	3.98%	4.91%	5.26%	4.60%	5.00%

¹ Total number of available positions within the Patent and Trademark business lines.

TABLE 29A: TOP 50 TRADEMARK APPLICANTS (FY 2021)

Name of Applicant	Class ¹
Liberty Procurement Co. Inc.	464
Amazon Technologies, Inc.	417
Target Brands, Inc.	381
Aristocrat Technologies Australia Pty Ltd.	329
Johnson & Johnson	327
Walmart Apollo, LLC	313
Novartis AG	294
PetSmart Home Office, Inc.	293
World Wrestling Entertainment, Inc.	292
Dr. Seuss Enterprises, L.P.	290
Bayerische Motoren Werke Aktiengesellschaft	285
Comité International Olympique	262
EOS Worldwide, LLC	258
MATTEL, INC.	253
Lidl Stiftung & Co. KG	247
SG GAMING, INC.	237
Samsung Electronics Co., Ltd.	229
DBG GROUP INVESTMENTS, LLC	221
Coupang Corp.	217
MAKE GREAT SALES LIMITED	212
GARAN SERVICES CORP.	208
LG ELECTRONICS INC.	203
Dapeng Chai	201
Guangzhou Biaobiao Network Technology Co., Ltd.	200
Guangzhou Biaodian Information Technology Co., Ltd.	200

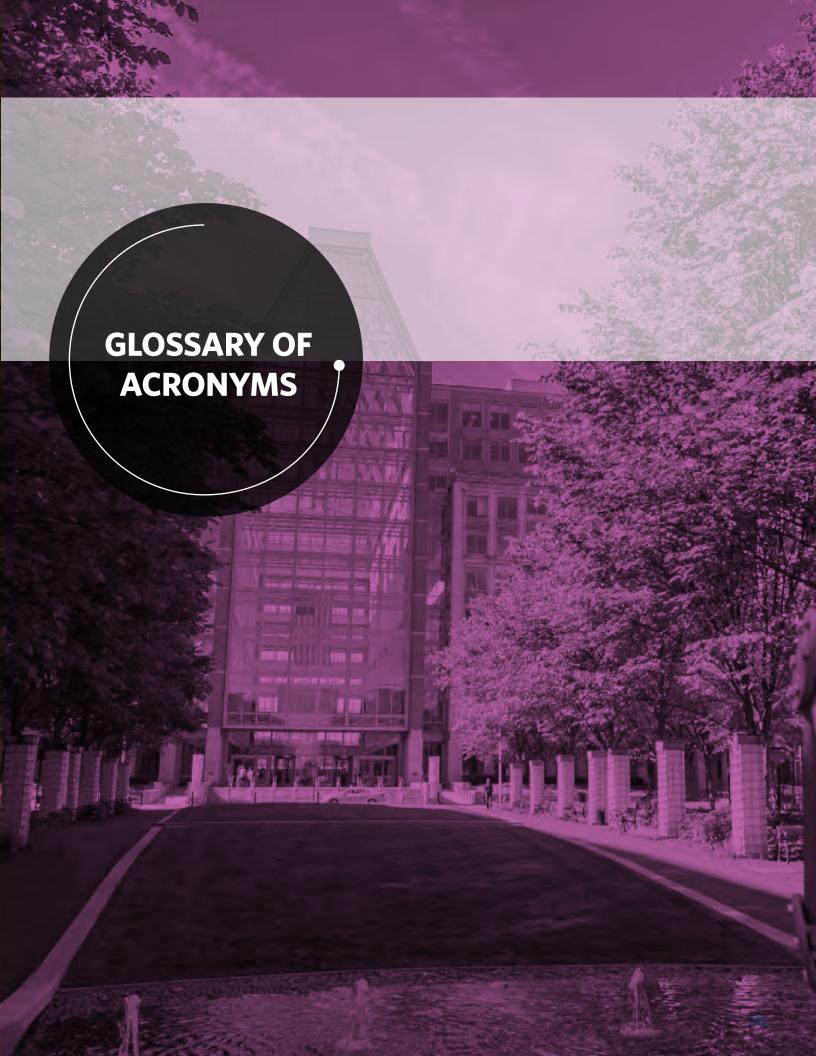
Name of Applicant	Class ¹
Guangzhou Biaomei Business Co., Ltd.	200
Guangzhou Biaozhi Pinpai Management Co., Ltd.	200
Guangzhou Lingbiao Network Technology Co., Ltd.	200
Guangzhou Tianxiawubiao Network Technology Co., Ltd.	200
Guangzhou Zhijin E-Commerce Co., Ltd.	200
Pfizer Inc.	198
MOBILE STARLIGHT CO LTD	197
L'Oreal USA Creative, Inc.	194
Guangzhou Xinbiao Brand Management Co., Ltd.	192
Eli Lilly and Company	190
S.M. ENTERTAINMENT CO., LTD.	188
Maison Battat Inc.	172
Euro Games Technology Ltd.	171
HOMAR TECHNOLOGY INC	170
Microsoft Corporation	170
E. & J. Gallo Winery	169
Yo Labs, LLC	166
Sazerac Brands, LLC	165
CVS Pharmacy, Inc.	163
Home Depot Product Authority, LLC	156
Lotion, LLC	154
Google LLC	148
REEF GLOBAL IP LLC	145
The Upper Deck Company	141
The Spring League LLC	139

¹ Applications with Additional Classes.

TABLE 29B: TOP 50 TRADEMARK REGISTRATIONS (FY 2021)

Name of Registrant	Registrations
Xiamen Youjing E-commerce Co., Ltd.	351
Aristocrat Technologies Australia Pty Ltd.	237
Novartis AG	229
GUANGZHOU BIAODIAN INFORMATION TECHNOLOGY CO., LTD.	169
Guangzhou Biaobiao Network Technology Co., Ltd.	153
Pleiades Publishing LLC	152
Yang, Xiaodong	141
Home Depot Product Authority, LLC	138
Guangzhou Tiancheng Pinpai Management Co., Ltd.	128
Samsung Electronics Co., Ltd.	127
KBZ TECH INC	122
U.S. Marine Corps	114
PetSmart Home Office, Inc.	113
LG ELECTRONICS INC.	107
AGS LLC	103
LIAO XIAOFEI	94
SHENZHEN BOKAIZE TECHNOLOGY CO., LTD.	94
EVERI GAMES INC.	90
Guangzhou Shengjing Trading Co., Ltd.	84
Walmart Apollo, LLC	83
Amazon Technologies, Inc.	82
Renyan H. Wong	82
QSEEL INC	79
Chen, Jie	78
King Show Games, Inc.	78

Name of Registrant	Registrations
MATTEL, INC.	75
LG HOUSEHOLD & HEALTH CARE LTD.	74
Yang, Haonan	74
Zhang, Li	73
Gao Meichan	70
HUANG REN YAN	69
L'OREAL	69
Chen Sainan	68
L'Oreal USA Creative, Inc.	67
Lynco Distribution, Inc.	67
Apple Inc.	66
BALLY GAMING, INC.	64
XIAOFEI L. LIAO	62
SHENZHEN BOOKS TECH LIMITED COMPANY	61
Target Brands, Inc.	61
Playtika Ltd.	60
Li, Qingmei	59
Meifen Li	59
Meizhu Chen	58
Qionghua Li	57
Shenzhen Bokaize Keji Limited	57
Wanna One Inc	57
Homesick BVG LLC	56
Yu, Xiuqin	56
Chen xiaojin	55



GLOSSARY OF ACRONYMS

2FA	Two-Factor Authentication	СХ	Customer Experience
ABA	American Bar Association	DATA	Digital Accountability and Transparency Act
ACH	Automated Clearing House	DAV	Docket and Application Viewer
ACR	Accelerated Case Resolution	DevSecOps	Development, Security, and Operations
ADP	Agile Delivery Platform	DM	Docket Management
AFCP	After Final Consideration Pilot	DM&R	Deferred Maintenance and Repairs
AGA	Association of Government Accountants	DOC	Department of Commerce
Al	Artificial Intelligence	DOCX	A word processing file format that
AIA	America Invents Act		includes XML
AIPA	American Inventor Protection Act	DOL	Department of Labor
AIPD	Artificial Intelligence Patent Dataset	E2E	End-to-End
AIPLA	American IP Law Association	EDW	Enterprise Data Warehouse
AMP	Aspiring Managers Program	EIPL	Enterprise Infrastructure Product Line
APEC	Asia Pacific Economic Cooperation	ELP	Emerging Leaders Program
APEX	Administrative Professionals Excellence	EO	Executive Order
APJ	Administrative Patent Judge	ERM	Enterprise Risk Management
ARIPO	African Regional IP Organization	ESTTA	Electronic System for Trademark Trial
ASAP	Automated Specimen Analysis Product	FLUDO	and Appeals
ATJ	Administrative Trademark Judge	EUIPO	European Union Intellectual Property Office
AWE	After Work Education	FedRAMP	Federal Risk and Authorization
AWS	Amazon Web Services	r cult/ tivil	Management Program
BAS	Building Automated System	FEGLI	Federal Employees Group Life Insurance
BFS	Bureau of the Fiscal Services	FEHB	Federal Employees Health Benefit
BOSS	Business Oriented Software Solutions	FERS	Federal Employee Retirement System
CARES	Coronavirus Aid, Relief, and Economic	FETB	Front End Terabytes
СВМ	Security Covered Business Methods	FFMIA	Federal Financial Management
CBP	U.S. Customs and Border Protection		Improvement Act
CDC	Centers for Disease Control and Prevention	FICA	Federal Insurance Contributions Act
CEAR®	Certificate of Excellence in	FISMA	Federal Information Security
OL7 III	Accountability Reporting	FMFIA	Management Act Federal Managers' Financial Integrity Act
CES	Consumer Electronics Show	FOH	Federal Occupational Health
CFO	Chief Financial Officer	FPNG	Fee Processing Next Generation
CFR	Code of Federal Regulations	FRAND	Fair, Reasonable and Non-discriminatory
Cl ²	Council for Inclusive Innovation	FY	Fiscal Year
CNIPA	China National IP Administration	GAAP	Generally Accepted Accounting Principles
CO ²	Carbon Dioxide	GAO	Government Accountability Office
CoE	Center of Excellence	GI	Geographical Indications
COTS	Commercial Off-the-Shelf	GIPA	Global IP Academy
COVID-19	Coronavirus	GOTS	Government Off-the-Shelf
CPC	Cooperative Patent Classification	GPRA	Government Performance Results Act
		•	

GLOSSARY OF ACRONYMS (continued)

GRB	General Requirements Bulletin	OECD	Organization for Economic Co-operation and Development
GS	General Schedule	OEEOD	Office of Equal Employment Opportunity
GSA	General Services Administration	OLLOD	and Diversity
GUI IAC	Graphical userUser interface	OGC	Office of the General Counsel
	Inventors Assistance Center	OIG	Office of Inspector General
IACC INTA	International Anti-Counterfeiting Coalition International Trademark Association	010	Office of Innovation Outreach
ICANN		ОМВ	Office of Management and Budget
ICAININ	Internet Corporation for Assigned Names and Numbers	OP	Office of Procurement
ID5	Industrial Design 5	OPIA	Office of Policy and International Affairs
IG	Inspector General	OPQA	OPQA Office of Patent Quality Assurance
ILCC	Ideal Leader Confidence Course	OPSE	Office of Patents Stakeholder Experience
IMPI	Mexican Institute of Industrial Property	OTQRT	Office of Trademark Quality Review
IP	Intellectual Property		and Training
IP5	Five Intellectual Property Offices	OUS	Office of the Under Secretary and Director
IT	Information Technology	PACE	Patent Administrative Continued Education
ITSM	IT Service Management	PAIR	Patent Application Information Retrieval
kWh	Kilowatt-hour	PALM	Patent Application Locating and Monitoring
LEAP	Legal Experience and Advancement Program	PAR	Performance and Accountability Report
LED	Light Emitting Diode	PCT	Patent Cooperation Treaty
ML	Machine Learning	PDF	Portable Document Format
MPEP	Manual of Patent Examination Procedure	PE2E	Patents End-to-End
MRF	Master Review Form	PEDS	Patent Examiner Data System
MWh	Megawatt-hour	PETTP	Patent Examiner Technical Training Program
NAI	National Academy of Inventors	PIIA	Payment Integrity Information Act of 2019
NCEAI	National Council for Expanding	POA&M	Plans of Action and Milestones
	American Innovation	PP&E	Property, Plant, and Equipment
NCPC	National Crime Prevention Council	PPAC	Patent Public Advisory Committee
NIHF	National Inventors Hall of Fame	PPG	Parallel Patent Grant
NOAA	National Oceanic and	PPH	Patent Prosecution Highway
	Atmospheric Administration	PTA	Patent Term Adjustment
NWOW	New Ways of Working	PTAB	Patent Trial and Appeal Board
OBRA	Omnibus Budget Reconciliation Act	P-TACTS	Patent Trial and Appeal Case Tracking System
OC	Official Correspondence	PTAG	Patent and Trademark Office Acquisition
OCAO	Office of the Chief Administrative Officer	DTE	Guidelines
OCCO	Office of the Chief Communications Officer	PTE	Patent Term Extension Patent and Trademark Fee Reserve Fund
OCE	Office of the Chief Economist	PTFRF	
OCFO	Office of the Chief Financial Officer	PTRC	Patent and Trademark Resource Centers
OCIO	Office of the Chief Information Officer	RCE	Request for Continued Examination
OE	Office of Education	RFD	Ready For Decision
		RPA	Robotic Process Automation

GLOSSARY OF ACRONYMS (continued)

SBASmall Business AdministrationUSTRUnited States Trade RepresentativeSBRStatement of Budgetary ResourcesVEOVoluntary Employee OrganizationSCPSupervisor Certificate ProgramVILTVirtual Instructor Led Training

SDI-NG Software Development and Integration WHOIS A protocol for searching databases of records containing registration information

Senior Executive Service about registered domain names

SME Small and Medium-Sized Enterprises **WIPO** World Intellectual Property Organization

SOP Standard Operating Procedure
STEM Science, Technology, Engineering,

WTO World Trade Organization
XML Extensible Markup Language

STEPP Stakeholder Training on Examination

Practice and Procedure

SUCCESS Study of Underrepresented Classes

Chasing Engineering and Science Success

TAC Trademark Assistance Center

and Mathematics

TEAP Telework Enhancement Act Pilot Program **TEAS** Trademark Electronic Application System

TM5 Five Trademark Offices

SES

TMA Trademark Modernization ActTMEO Trademark Examining Operation

TMEP Trademark Manual of Examining Procedure

TMNG Trademark Next Generation

TPAC Trademark Public Advisory Committee
TRIPS Trade-Related Aspects of Intellectual

Property Rights

TTAB Trademark Trial and Appeal Board
TTABIS Trademark Trial and Appeal Board

Information System

TTABVUE Trademark Trial and Appeal Board Inquiry

System

UK United KingdomU.S.C. United States Code

UMP Upward Mobility Program

UNESCO United Nations Educational, Scientific and

Cultural Organization

Univ of PR University of Puerto Rico

UPOV Union for the Protection of New Varieties

of Plants

UPR Utility, Plant, and ReissueURL Uniform Resource Locator

USMCA United States-Mexico-Canada AgreementUSPTO United States Patent and Trademark Office



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DATA VISUALIZATION CENTER

www.uspto.gov/about-us/performance-and-planning/data-visualization-center

MANAGEMENT CHALLENGES

Sustainable Funding:

www.gao.gov/assets/gao-12-514r.pdf

PATENTS

Patent Basics

www.uspto.gov/patents/basics

Examination Process

www.uspto.gov/patents/basics/patent-process-overview

Strategic Performance

www.performance.commerce.gov

Performance Appraisals

www.uspto.gov/patents/laws/examination-policy/updates-patent-examination-time-application-routing

National Council for Expanding American Innovation (NCEAI) - re-branded to Council for Inclusive Innovation (Cl²)

www.uspto.gov/ExpandingAmericanInnovation

Customer Partnerships:

www.uspto.gov/patents/patents-customer-partnershipmeetings

TRADEMARKS

Trademark Basic Boot Camp

www.uspto.gov/about-us/events/trademark-basics-bootcamp

Trademark Basics Section

www.uspto.gov/trademarks/basics

Customer Experience

www.performance.gov/cx/

Customer Transparency and Accountability www.performance.gov/

COVID-19 Response Resource Center

www.uspto.gov/coronavirus/uspto-covid-19-responseresource-center

Intellectual Property as a Critical Driver of Innovation www.uspto.gov/ip-policy/economic-research/research-datasets

Improving Cybersecurity

www.federalregister.gov/documents/2021/05/17/2021-10460/improving-thenations-cybersecurity

OPEN DATA

Developer Hub developer.uspto.gov

Patent Examination Data System

ped.uspto.gov/peds/#!

ARTIFICIAL INTELLIGENCE (AI)/MACHINE LEARNING (ML)

www.uspto.gov/blog/director/entry/artificial-intelligence-tools-at-the

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FINANCIAL STABILITY RULE MAKING

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documents/2020/11/17/2020-25222/trademark-fee-adjustment

INTERACTION WITH THE PUBLIC

Broadening the IP Ecosystem

www.uspto.gov/initiatives/expanding-innovation

Improper Payments

www.whitehouse.gov/wp-content/uploads/2018/06/M-18-20.pdf

ACKNOWLEDGEMENTS

This PAR was produced with the energies and talents of the USPTO staff. To these individuals, we would like to offer our sincerest thanks and acknowledgment. In particular, we would like to recognize the following organizations and individuals for their contributions:

- Office of the Under Secretary and Director: Cordelia (Dede) Zecher, Sarah Brown, Hellen Bryan-Johnson, Linda Horner, Steve Koziol, Marie Ladino, Patricia Mallari, Lena Munasifi, Todd Reves, Anthony Twitty, Robert Houser
- Office of the Chief Communications Officer: Jeff Isaacs, NaThanya Ferguson, Rebekah Oakes, Paul Rosenthal, Joyce Ward, Richard McCormack
- Office of the Chief Administrative Officer: Chris Gambill
- Office of the Chief Financial Officer: Michelle Picard, Tori Key
- Office of Planning and Budget: Bonita Royall, Amber Ostrup, Walter Schlueter, Welton Lloyd, Mohamed Ahmed
- Office of Finance: Shana Willard, LaToya Watson
- Office of Policy and International Affairs: Shannon Chowdhury, John Ward
- Office of the Chief Information Officer: Maureen Brown, Keith Brown
- Office of the General Counsel: Mary Kelly
- Office of Equal Employment Opportunity and Diversity: Clint Janes, Glorimar Maldonado, Tamika Anderson
- Office of the Commissioner for Patents: Greg Mills, Alexandria (Ali) Emgushov, Cathy Sias, Veronica Augburn Seaforth
- Office of the Commissioner for Trademarks: Patrick Washington
- Patent Trial and Appeal Board: Troy Tyler, Julie Pearson
- Trademark Trial and Appeal Board: Eric McWilliams, Karen Young, LaToya Brown

We would also like to acknowledge the OIG and KPMG LLP for the professional manner in which they conducted the audit of the FY 2021 Financial Statements.

We offer special thanks to FedWriters and AOC Solutions Inc. for their contributions to the design and production of this report. To send comments or provide feedback on this report, please contact: Office of Planning and Budget, 600 Dulany Street, Alexandria, VA 22314, PARmail@uspto.gov, 571-272-1000.



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