UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT PUBLIC ADVISORY COMMITTEE MEETING

Alexandria, Virginia
Thursday, November 21, 2024

1	PARTICIPA	NTS:
2	Patent Pu	blic Advisory Committee (PPAC) Members:
3		LOLETTA DARDEN, Chair
4		CHARLES DUAN, Vice Chair
5		EARL BRIGHT
6		HENRY HADAD
7		SUZANNE HARRISON
8		LATEEF MTIMA
9		HEIDI S. NEBEL
10		MARVIN J. SLEPIAN
11		OLIVIA TSAI
12	USPTO:	DERRICK BRENT
13		Deputy Under Secretary of Commerce for Intellectual Property and Deputy
14		Director of the United States Patent and Trademark Office
15		VAISHALI UDUPA
16		Commissioner for Patents
17		ROBIN EVANS
18		JERRY LORENGO
19		RICK SEIDEL
20		VALENCIA MARTIN-WALLACE
21		NICOLAS OETTINGER
22		BRIAN HANLON

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1	PROCEEDINGS
2	(10:00 a.m.)
3	MS. DARDEN: I'm Lolita Darden and I'm
4	the chair of PPAC this year. So, again, thank you
5	for joining us for this year the last public
6	meeting of the year. And the purpose of this
7	meeting really is to provide you with an overview
8	of the PPAC report that we just submitted to the
9	Department of Congress excuse me, Department of
10	Commerce and the President. Before we begin,
11	however, we will have some opening remarks by
12	Deputy Director Brent.
13	MR. BRENT: Thank you very much. You
14	know, it's only fitting that because when I come
15	into virtual meetings, I have a tendency to come
16	in on mute. So it's only fitting that I would
17	start my remarks here today with the mic off.
18	Welcome, everyone, to the final 2024
19	meeting of the Public Patent Advisory Committee,
20	PPAC. You know, whenever I see that name spelled
21	out, you know, it kind of shocks me. I'm so used
22	to just saying PPAC. But it's good to see you all

- 1 here, friends and all, and it's good that we'll
- 2 have the public with us today.
- 3 On behalf of Director Kathi Vidal, the
- 4 entire USPTO management team, and our 14,000
- 5 employees, thank you all for being here and for
- 6 tuning in. It means a great deal to all of us for
- 7 you to be engaged in our activities. We truly
- 8 value your interest and your participation.
- 9 To our PPAC chair, Lolita Darden, thank
- 10 you for spearheading this year's Annual Report
- 11 from your full committee and the subcommittees.
- 12 We look forward to your presentations and to
- 13 hearing how leadership can turn your
- 14 recommendations into action.
- We will also recognize three current
- 16 PPAC members whose three-year terms come to a
- 17 close. And it was hard for me just to say that
- 18 because I was like three friends, but Suzanne
- 19 Harrison, our 2023 PPAC chair; Heidi Nebel, PPAC's
- 20 vice chair in 2023; and our current PPAC vice
- 21 chair, Charles Duan. We will honor you at the end
- of my remarks. But on behalf of Director Vidal

- and the current leadership, thank you for your
- 2 commitment to serving the Agency and the public.
- 3 And a big thank you for helping guide us as we
- 4 have worked together to improve every aspect of
- 5 our operations.
- As you all know by now, Director Vidal
- 7 will be departing the USPTO in a couple of weeks
- 8 to return to the private sector. It was a busy
- 9 term and she accomplished a great deal. It will
- 10 be my privilege to serve as acting director upon
- 11 her departure through Inauguration Day in January.
- 12 On behalf of Director Vidal and the entire
- 13 political team, we feel that we are leaving the
- 14 Agency on a very strong footing and with
- 15 everything it needs for continued success.
- So now I want to take a few minutes to
- 17 give PPAC members and the public an update on
- 18 current activities. First, the new fee structure
- for Patents was published yesterday in the Federal
- 20 Register. This will help us in every aspect of
- our operations and will ensure that the United
- 22 States continues to have the leading IP office in

- 1 the world. Again, thank you to the members of
- 2 PPAC for your feedback and for your time in
- 3 quiding us through this long process.
- 4 I'm also pleased to note that we are on
- 5 the cusp of signing a new collective bargaining
- 6 agreement with our biggest union, Patent Office
- 7 Professional Association, also known as POPA. I
- 8 kind of -- you know, sometimes I like the
- 9 acronyms. It's just, you know, it's just kind of
- 10 cool, POPA. The signing is scheduled for December
- 11 here at Headquarters. This, too, was a long time
- 12 coming and we are very pleased with the result.
- 13 Speaking for all of those involved in our
- 14 management negotiating team, it has been an honor
- to work with Kathy Duda and the other POPA members
- of PPAC.
- Now, okay, wait a minute. Will we get
- that many P's going? That's a bit too much.
- Okay. But the other POPA members of PPAC,
- 20 Catherine Faint and Vernon Ako Towler, and
- 21 everyone from POPA involved in the negotiations.
- The new agreement passed with overwhelming

- 1 support, an indication of how we work together to
- 2 build consensus here at the USPTO. Along with a
- 3 special rate table for our examiners that was put
- 4 in place earlier this year, the collective
- 5 bargaining agreement makes the USPTO a very
- 6 desirable place for people to work.
- 7 Since we last met, we have also hired
- 8 our first director for the new USPTO Office of
- 9 Public Engagement. Nancy Kamei is a master of
- innovation and I don't say that lightly. She has
- 11 taken on several different things in her career
- 12 and she has been -- and she is a shining example
- of a person who has adapted to various different
- 14 work in different sectors and she has succeeded on
- 15 every level. She will be a leading light in
- 16 innovation policy and outreach.
- Nancy joins us from her position
- managing national outreach for the Small Business
- 19 Innovation Research and the Small Business
- 20 Technology Transfer Programs at the National
- 21 Science Foundation. Nancy is an entrepreneur who
- 22 has been involved with startups, seed funding and

- 1 innovation investment for decades. With her
- 2 knowledge and experience, Nancy is the perfect
- 3 person for this new position.
- 4 Joining her as OPE Deputy Director is
- 5 John Cabeca, who has been one of our outstanding
- 6 IP attachés for South Asia. John has been with
- 7 the USPTO since 1989 when he started as a patent
- 8 examiner. He moved up through the ranks and has
- 9 worked on IP issues throughout the federal
- 10 government: In the Commerce Department, at the
- 11 USTR, and at the White House. All of this bodes
- 12 extremely well for the USPTO's role as America's
- innovation agency and for our mission to involve
- many more people in the U.S. Innovation economy.
- The Office of Public Engagement is also
- 16 gearing up to relaunch the Council for Inclusive
- 17 Innovation in early December at the White House,
- and it is moving forward with plans to open the
- 19 new Southeast Regional Office in Atlanta by the
- 20 end of the year and the New Hampshire Outreach
- 21 Office soon thereafter. In fact, this week we
- 22 announced a new director of that office. Dan

- 1 Modricker is a former Marine Corps helicopter
- 2 pilot and was regional outreach coordinator for
- 3 the Cybersecurity and Infrastructure Security
- 4 Agency, also known as CISA. Prior to that, he was
- 5 the national spokesman for the IP Rights
- 6 Coordinating Center in Washington, D.C. So, as
- you can see, our outreach programs are
- 8 professionally staffed and in full swing.
- 9 This week we are also opening the
- 10 country's 99th Patent and Trademark Resource
- 11 Center at Mississippi State University. We expect
- 12 to reach 100 PTRCs within the next few weeks. The
- 13 PTRCs are an important national resource,
- 14 instrumental in connecting thousands of potential
- patent applicants to our IP system. Getting to
- 16 100 PTRCs is a monumental achievement.
- 17 Also in the first week of December, we
- will be announcing new awards for our Patents for
- 19 Humanity Green Energy program. There will be a
- 20 public ceremony on December 3rd and we invite you
- 21 to mark your calendars and make sure you tune in.
- 22 You will be inspired by the incredible innovation

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1 that is taking place in the U.S. green energy
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- 2 sector.
- 3 Turning to patent pendency, which my
- 4 friend Vashali will be talking about soon, we are
- 5 making good progress. At the end of September
- 6 2024, the average number of months from a patent
- 7 application filing date to first Office Action was
- 8 19.9 months. This is a decrease from last year,
- 9 In 2023, when first Office Action pendency was
- 10 20.5 months. The unexamined patent inventory
- 11 currently sits at 793,824 applications. The total
- 12 pendency from filing to final disposition is 26.3
- months. For all the practitioners in the
- audience, we are complying with the patent term
- 15 adjustment timeframes in 79 percent of mailed
- 16 actions and 80 percent of remaining inventory.
- To keep up with the increase in
- 18 applications and with their growing complexity,
- our patent examination core is expanding. This
- 20 past fiscal year we met and exceeded our goal of
- 21 hiring more than 850 new patent examiners. I
- actually thought that number was 900, wasn't it?

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1 MS. DARDEN: Our goal was 800.
2 MR. BRENT: The goal was 800. The old
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- 3 goal was 800. For the current fiscal year 2025
- 4 that started on October 1st, our goal to hire --
- 5 our goal is to hire an additional 1,600 new
- 6 examiners. So we are committed to making sure
- 7 that we have -- we are staffed properly in order
- 8 to deliver on our mission to the public.
- 9 And keep in mind the average examiner
- 10 has been with the Agency for nearly 13 years. So
- our new hires will be joined in experienced staff
- who can help guide them towards success in their
- new roles. I had the privilege of talking to a
- 14 group coming through academy yesterday and they're
- 15 very excited and looking forward to them joining
- 16 -- to their getting to work soon. I think they're
- 17 committed to the mission.
- We are seeking new examiners who have
- recently graduated college with technical degrees
- in biology, biomedical engineering and chemical
- 21 engineering, computer engineering and computer
- science, electrical and mechanical engineering,

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1 physics, and many other engineering and scientific
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- 2 disciplines. Our Office of Human Resources is
- 3 targeting 80 collegiate career fairs this fall.
- 4 We are holding online webinars and we are working
- 5 with our regional offices on outreach to local
- 6 universities. So if you know a recent college
- 7 grad with a technical degree, make sure to send
- 8 them our way. It is a great job with good pay,
- 9 good benefits, and an outstanding set of
- 10 colleagues to work with who will be friends for
- 11 life.
- 12 Apart from hiring new examiners, we
- 13 continue to prioritize patent quality while also
- 14 publishing -- pushing to reduce our first Office
- 15 Action pendency. We want examiners to have the
- 16 best tools, the best resources, and the best
- 17 training we can provide them. In July, we issued
- guidance on patent subject matter eligibility with
- 19 claims involving critical and emerging
- 20 technologies, like AI. The Manual of Patent
- 21 Examining Procedure was updated last week. Nearly
- 22 every chapter was revised.

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                 And our Office of Patent Quality
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       Assurance is continuously analyzing the quality of
       patent examination at the USPTO. We have teams of
 3
       review quality assurance specialists who randomly
 5
       select and review new patent allowances.
       specialists are primary examiners with a proven
 6
       history of high-quality patent examination. This
 8
       sounds like a lot and it is, but I'm only
 9
       scratching the surface of all the things that are
10
      happening here at this busy Agency. I know
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      Vashali and I and a group of us had a meeting
      probably last week or so and it was just a full --
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13
      I mean to see the breadth of what's being worked
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      on, folks, it's impressive. It's impressive and I
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       can't thank our Patents team enough for the hard
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      work that you do on a daily basis. A lot of it's
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      not seen, but the results are there. So thank you
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      very much.
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                 Before I wrap up, I want to take a
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       moment to honor three members of our PPAC whose
21
       terms are coming to a close. To Suzanne Harrison,
22
       Heidi Nebel, and Charles Duan, I cannot tell you
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- 1 how thankful we are for your dedication to our
- 2 Agency and our mission and indeed our country. We
- 3 thank you for your commitment to public service,
- 4 and we implore you to stay engaged with every
- 5 aspect of our IP system moving forward.
- And to all of our members of PPAC, we
- 7 truly appreciate your tireless commitment to
- 8 advancing the IP rights of our innovators. The
- 9 new administration will need your counsel. Thank
- 10 you.
- Now it is time to present Certificates
- of Appreciation to Heidi, PPAC's vice chair in
- 13 2023, Charles Duan, and Suzanne. Thank you,
- 14 everyone. (Applause)
- 15 Suzanne, you are first. All right, my
- friend, how you doing? Got a certificate for you
- and a USPTO flag. Heidi, my friend. Charles.
- 18 (Applause)
- 19 MS. DARDEN: Thank you, Deputy Director
- 20 Brent, for those opening remarks. And thank you
- 21 once again to Suzanne, Heidi, and Charles for your
- three years of dedicated service. And I'm sure

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1 that we -- keep your phones on ready because you
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- will be hearing from current members of the PPAC
- 3 as we continue to go forward.
- 4 So now we're going to transition into
- 5 the PPAC report, but I just wanted to give you an
- 6 overview of the agenda. We will not only be
- 7 addressing the PPAC Annual Report today, but there
- 8 are also some other items on the agenda. We will
- 9 have a conversation with the chief financial
- 10 officer, Jay Hoffman, and members of the legal
- 11 team regarding some pressing and important legal
- matters that we wanted to update the public on.
- 13 And we will also have a presentation from the
- 14 Patent group regarding a recent study regarding
- inter partes proceedings. So again, some good
- 16 nuggets in this meeting in addition to the Annual
- 17 Report.
- 18 And before I introduce the members of
- 19 the Patent Public Advisory Committee to give you a
- 20 summary of their various sections of the report
- 21 that they basically were responsible for writing,
- 22 I just want to tell you a little bit about who we

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1 are and what we do because some of you in the room
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- 2 might know what PPAC does, but others might not.
- 3 So we want to just sort of set the ground rules
- for what we do and how we were organized.
- So the Patent Public Advisory Committee,
- 6 along with the Trademark Public Advisory
- 7 Committee, was organized by statute. And the
- 8 basic function of both of these committees is to
- 9 act in an advisory role to the USPTO and
- 10 particularly the Undersecretary and Director of
- 11 the United States Patent and Trademark Office. So
- we're looking to provide advice and counsel
- 13 basically on several areas of how the Office
- 14 works. And we provide with -- advice and counsel
- on fee-setting policy and -- I can't even read
- that slide, so fee-setting and policy are our main
- functions and we do act in an advisory role.
- We are also charged with writing an
- 19 Annual Report, which you will hear more about
- 20 today. And that report is sent to the Department
- of Congress -- I keep saying Congress, to the
- Department of Commerce, the President, and then

- 1 members of various committees related to IP.
- 2 We will -- as I said, I'm Lolita Darden.
- 3 I'm the chair of PPAC this year and I would like
- 4 for each member of the PPAC to introduce
- 5 themselves, where you work, and how long you've
- 6 been a member of the Advisory Committee. Charles?
- 7 MR. DUAN: All right. Thanks, Lolita.
- 8 I'm Charles Duan. I am the vice chair of the PPAC
- 9 and also in my third year, as was just noted, on
- 10 PPAC. I otherwise teach as a law professor at the
- 11 American University Washington College of Law.
- MS. HARRISON: Hello, everyone. I'm
- 13 Suzanne Harrison. I'm also in my third year. In
- my day job I have my own consulting firm,
- Percipience, which focuses on IP and national
- 16 security and also how to allow companies to make
- 17 better informed decisions about their IP and
- 18 intangibles.
- MS. NEBEL: Hi, I'm Heidi Nebel. This
- is my final year, third year as a PPAC member. I
- am an attorney in private practice in Des Moines,
- Iowa, with the firm of McKee Voorhees & Sease.

- 1 MR. HADAD: My name is Henry Hadad. I'm
- 2 in the second of my three-year term on the PPAC
- 3 and my role is chief IP counsel at the
- 4 biopharmaceutical company Bristol Myers Squibb.
- 5 MS. TSAI: Good morning. Olivia Tsai.
- 6 I am chief IP counsel at Cruise, a self-driving
- 7 car company, and this is my second year on PPAC.
- 8 MR. BRIGHT: Hi, I'm Eb Bright. My day
- 9 job is running a medical device company incubator
- 10 in Silicon Valley in California. And this is the
- 11 end of my first year on the PPAC.
- 12 MR. MATIMA: Good morning. I am Lateef
- 13 Mtima. I'm a professor of law at the Howard
- 14 University School of Law. And this is also the
- 15 end of my first year on the PPAC.
- DR. SLEPIAN: Good morning. I'm Dr.
- 17 Marvin Slepian. I'm a Regents Professor at the
- 18 University of Arizona. I'm professor of medicine,
- 19 biomedical engineering, chemistry, and law. I'm a
- 20 practicing cardiologist. I run the Innovation
- 21 Center for the University of Arizona. And this is
- 22 my first year on PPAC.

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1 MS. DUDA: Hi, I'm Kathy Duda. I'm the
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- 2 union representative on PPAC. I'm a patent
- 3 examiner employed here for 34 years and I am the
- 4 president of the Patent Office Professional
- 5 Association. Thank you.
- MS. DARDEN: Thank you, everyone, for
- 7 those introductions.
- Now, as we move into the report summary,
- 9 each section of the report will be presented by
- 10 its author and we invite you to ask questions
- during the presentation. So we'll take questions
- 12 throughout. You don't have to hold your questions
- 13 to the end.
- 14 At this time I will turn the microphone
- over to Olivia Tsai, who will talk about the PPAC
- 16 25th anniversary.
- 17 MS. TSAI: Thank you, Lolita. Good
- 18 morning again, everyone.
- To elaborate on what Lolita just said,
- 20 PPAC is comprised of nine private sector
- 21 individuals from the IP community who work part
- 22 time, up to 60 days per year. PPAC is

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1 supplemented by USPTO labor organization leaders,
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- 2 including Kathy Duda in this room and Cathy Faint,
- 3 who is online. PPAC members are appointed to
- 4 three-year terms and are eligible to be renewed
- once. We are advisors to contribute to and
- 6 enhance work. Here are three examples.
- 7 One, we are often engaged to participate
- 8 in pre-decisional confidential discussions on
- 9 potential proposals and other questions from the
- 10 USPTO. Two, we break into subcommittees and
- 11 project groups to support USPTO initiatives. And
- 12 three, we offer connections and context by helping
- to bridge people outside the USPTO with the USPTO.
- On behalf of all the current PPAC
- 15 members, we are honored and proud to be here and
- appreciate this opportunity. For PPAC's 25th
- anniversary, we took a moment to recognize and
- 18 respect all PPAC alumni whose names are listed in
- 19 this year's Annual Report.
- 20 Do we have any questions about this
- 21 section of the report?
- Okay. Next slide.

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1 MS. DARDEN: Pardon? Were there
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- questions? We are, but we don't seem to have any.
- 3 So Olivia will also provide us with an overview of
- 4 rulemaking.
- 5 MS. TSAI: Yes, so next is rulemaking.
- 6 This year the USPTO continued to refine and
- 7 enhance Patent landscape through a series of
- 8 thoughtful rulemaking activities to address
- 9 emerging issues and to engage with stakeholders
- 10 effectively and with transparency. For context,
- 11 the general rulemaking process is about one year
- long and takes into account ample time to solicit
- 13 stakeholder input on proposed policies, changes,
- 14 and rules. All comments are welcome and
- 15 considered by the USPTO.
- 16 FY 2024 was another active rulemaking
- 17 year where the USPTO issued 33 rule-related
- notices in the Federal Register and reviewed over
- 19 800 written comments in response. Some notable
- 20 matters are highlighted in the Annual Report.
- 21 Overall, PPAC appreciates that
- discussion of rulemaking issues are especially

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1 complex and evolving and, therefore, agree that we
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- 2 should all continue to practice careful
- 3 consideration and collaboration for balanced
- 4 solutions.
- 5 Thank you for your time and attention.
- 6 Are there any questions about this section of the
- 7 report?
- MS. DARDEN: Okay. If there are no
- 9 questions, we'll move on to outreach. Lateef?
- 10 MR. MTIMA: Well, thank you very much.
- 11 I've been allotted 10 minutes and you see I have
- my watch in my hand to make certain that I stay on
- it because we have had some fantastic milestones
- in USPTO outreach initiatives this past year and
- 15 I'm going to try to summarize what we have
- 16 discussed in the report and to keep it within that
- 17 10-minute timeframe.
- So, first off, on May 1st of this year,
- 19 the USPTO adopted the National Strategy for
- 20 Inclusive Innovation, which implements key
- 21 components of the Unleashing American Innovators
- 22 Act, which is to-date the capstone federal

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1 legislation intended to promote an inclusive
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- 2 innovation ecosystem. The strategy was developed
- 3 in conjunction with the Council for Inclusive
- 4 Innovation and is "based on a vision for U.S.
- 5 innovation that will lift communities, grow the
- 6 economy, create quality jobs, and address global
- 7 challenges." In plain language, what the strategy
- 8 is designed to do is to ensure that the American
- 9 innovation ecosystem is working on all four
- 10 cylinders and that we have basically no one left
- on the bench.
- Now, the way in which the policy -- or
- 13 rather the strategy is structured, it's structured
- around what is referred to in the strategy as four
- 15 aspirational cornerstones. I like to think of
- 16 them as four key policy objectives. And what
- these four key policy objectives do is they
- 18 basically approach American innovation as an
- important spectrum that starts with focusing in on
- 20 imaginative youngsters and goes all the way
- 21 through the impact of successful entrepreneurs who
- 22 bring these advances to the American people. So

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1 it's very much like what we do with athletics. We
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- 2 start with kids at Little League and we take it
- all the way up through they finished college and
- 4 beyond. And now I think we are applying that same
- 5 lens to the American innovation system.
- 6 So first cornerstone or first policy
- 7 objective, and you'll see that this is illustrated
- 8 in the way in which the plan is structured. The
- 9 first one is inspiring new generations of
- 10 innovators by expanding, standardizing, and
- 11 scaling pre-K through 12 STEM education. The
- 12 specific recommendations in the strategy as to how
- 13 to do that: Standardize and scale youth
- innovation education beginning with promoting K-12
- 15 level engagement with the innovation cycle;
- 16 provide the necessary resources and training to
- 17 support and to empower educators to teach
- innovation and to provide, this is the Little
- 19 League aspect, youth coaching, mentoring, and
- 20 career awareness to foster and support long-term
- 21 interests and capabilities in innovation.
- 22 Cornerstone 2, rather policy objective

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2, catch them a few years later, educating and
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- 2 empowering innovators through postsecondary
- 3 innovation and entrepreneurship education and
- 4 training. Specific recommendations: Expand
- 5 research opportunities to a broad and diverse set
- of institutions in higher education; foster
- 7 innovation and entrepreneurship learning
- 8 experiences in postsecondary education; and
- 9 provide postsecondary mentoring and internship
- 10 opportunities to enable innovation.
- 11 Cornerstone or policy objective 3, and
- this is the one that I think is sort of the heart
- of the strategy, advancing inclusive innovation by
- 14 removing barriers to achieving innovation
- ecosystem, and focus on these words: Ecosystem,
- demographic, economic, and geographic equity.
- 17 Right? Demographic, economic, and geographic, not
- 18 the words that oftentimes in the past we associate
- 19 with inclusivity. This is to make it clear that
- 20 we're talking about everyone, right? I like to
- 21 say that this strategy is aimed at taking the
- 22 country by storm from Appalachia to Watts. Nobody

- 1 is to be left behind.
- 2 Specific recommendations as to how to
- 3 get this done? Encourage and support an inclusive
- 4 workforce across public and private organizations.
- 5 It is so impressive you have to hear it twice.
- 6 (Laughter) Cultivate innovation more broadly and
- 7 equitably in organizations that innovate,
- 8 including academic, research institutions.
- 9 And then finally, Cornerstone 4, as you
- 10 can see, we're taking you through not only the
- 11 life of the innovation cycle, but the life of the
- 12 innovator. Bringing innovation to market, getting
- it to the American people through policy changes
- 14 to promote widespread and equitable access to
- 15 startup and entrepreneurial investment. Specific
- 16 recommendations: Equitably facilitate IP
- 17 protection for all innovators and entrepreneurs
- and make entrepreneurship resources and support
- 19 available to all. Finally, leverage and expand
- 20 commercialization support and technology transfer.
- Now, as we note in our report, as
- impressive as the strategy is, this didn't just

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1 come about overnight. For decades, the USPTO has
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- been involved in various outreach and inclusivity
- 3 initiatives. And one of the most important things
- 4 that the office is achieved this year, in addition
- 5 to the strategy, was the establishment of what
- 6 Deputy Brent referenced earlier today, the Office
- of Public Engagement. And basically what the
- 8 office is intended to do is to pull all of these
- 9 various outreach and inclusivity efforts and to
- 10 coordinate them all together. And what this does,
- of course, is that it eliminates redundancies and
- it makes certain that every aspect of this
- 13 approach is covered. We could see where the gaps
- 14 are.
- 15 Part of that coordination involves, for
- 16 example, pulling together what each of the
- 17 regional offices have been doing. And in meetings
- 18 with the regional offices, each office has had its
- own approaches to inclusivity. And that, of
- 20 course, is a good thing because accomplishing this
- 21 across the nation, it is not a one size, one
- region fits all approach. As the Deputy Brent

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also mentioned, we've added to those regional
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- 2 offices by establishing the Southeast Regional
- 3 Office in Atlanta.
- 4 One other preexisting mechanism that I
- 5 think is very much undersung and is a very
- 6 important aspect of this approach is the Patent
- 7 and Trademark Resource Centers. These are
- 8 basically libraries that are established at
- 9 preexisting universities. In other words, places
- 10 where people are already going. Right? And so is
- 11 that it is enhancing libraries' capability to
- 12 promote innovation from where they are.
- 13 And then finally, as Deputy Director
- Brent mentioned, also in implementing the
- 15 Unleashing American Innovators Act, we now have
- the establishment of the first Community Outreach
- 17 Office in New Hampshire. And so you see that
- 18 balance, right? We have this Southeast Regional
- Office in Atlanta, we have the first COO in New
- 20 Hampshire. And the overarching purpose of the
- 21 Community Outreach Office is to ensure the USPTO's
- initiatives are tailored to the area's unique

- 1 ecosystem of industries and stakeholders and to
- grow that area's nearly 800-plus patent holders
- and 5,000-plus trademark registrants, fueling
- 4 local industries and economies. In other words,
- 5 it's no longer necessary for the innovator or the
- 6 IP entrepreneur to come to the Office. Okay?
- 7 We're bringing the Office to the communities to
- 8 where people are.
- 9 So, finally, I would just conclude by
- 10 summarizing our specific recommendations and given
- 11 the wonderful stuff that has been happening
- 12 throughout the year. And I certainly want to
- 13 acknowledge that as we were getting to the point
- 14 that we would have a permanent director of the
- OPE, a lot of this was done under the helm of
- 16 Scott Ewalt, who was interim director for several
- 17 months, to just sort of get us to this place. And
- 18 to pick up and to continue this momentum, our
- 19 recommendations are that the OPE consult and
- 20 collaborate with target communities and groups to
- 21 develop preliminary assessment metrics. We need
- 22 to know, is it working? Is it achieving what it

- 1 needs to achieve? And the way that you do that is
- 2 you don't come in with assessment metrics. You
- 3 talk with the target communities and together you
- 4 collaborate and determine what assessment metrics
- 5 should be, what should success look like, and then
- 6 we can see whether or not we have achieved it.
- 7 Through the OPE, PPAC encourages the USPTO to
- 8 continue to coordinate its vast network of public
- 9 outreach and education initiatives.
- 10 And finally, our third recommendation in
- 11 this part of the report is that the OPE enlist the
- 12 Council for Inclusive Innovation in coordinating
- 13 the USPTO's public outreach and education
- 14 framework with private sector initiatives. Once
- again, end result, nobody left on the bench.
- 16 With that, yeah, I think I did in about
- maybe it's ten and a half minutes, I'll conclude.
- 18 Thank you very much.
- 19 Thank you, Lateef. As you heard, there
- 20 are a lot of things happening in outreach. And
- 21 I'm a visual person, so when Lateef, you say
- 22 taking the country by storm, I see taking the

- 1 country by storm through innovation. And I can
- 2 see little kids and senior citizens, grandmothers,
- 3 grandfathers, some were innovating to solve
- 4 problems that happen in their lives. So, really
- 5 excited about these new initiatives.
- Are there any questions in the room or
- 7 online for Lateef about outreach?
- 8 Okay. Hearing none and seeing no hands
- 9 raised in the room, we will move to finance, and
- 10 Eb Bright will provide an overview of the finance
- 11 portion of the report. And that discussion will
- 12 be followed by Suzanne Harrison, who will have a
- 13 conversation with Jay Hoffman and members of the
- 14 legal team.
- MR. BRIGHT: All right, thank you. So
- 16 I'm going to try to keep my remarks fairly brief
- because the more interesting part is going to be
- 18 the conversation with Jay and Nick, so we'll try
- 19 to leave as much time as possible for that. But I
- 20 did want to set a little bit of background and
- 21 perspective for everybody with respect to money.
- 22 And, you know, this is where oftentimes you get

- 1 the most attention, particularly with a government
- 2 agency. And so it's a little bit unusual the way
- 3 that the Patent Office is funded within the
- 4 government and operates. So we wanted to make
- 5 sure that everybody had a good grounding on how it
- 6 does work.
- 7 So first of all, by statute, PPAC
- 8 doesn't have a whole lot of description about what
- 9 we're supposed to do. But one of the things that
- 10 is specifically called out is for us to review and
- 11 advise the Office on their budget and on their
- 12 performance and their user fees. And I'm pleased
- 13 to say that the Office takes the collaboration
- 14 with the PPAC very seriously. And we have
- 15 actually very open, robust, and comprehensive
- 16 discussions about the operations.
- 17 And I can say as a, you know, small
- 18 business owner and an executive who has to rely on
- 19 venture capital financing, our responsibility as a
- 20 small company is to look ahead over a 24- or
- 21 36-month timeframe generally and say, what are we
- going to do during that period of time? How much

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1 money do we need to do it? And then go and try to
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- 2 raise that from venture capitalists. Then once we
- 3 have that money in the bank, know that it can't
- 4 change. So whatever changes occur over that
- 5 period of time, we have to make adjustments in our
- 6 operating activities to make sure we're still
- 7 hitting our milestones and we're still working
- 8 within that funding.
- 9 The Patent Office does a very similar
- 10 thing. They are looking ahead multiple years into
- 11 the future, trying to predict what are going to be
- the demands on the Agency, how much funding are
- 13 they going to need for it and how do they go about
- 14 collecting the user fees that are going to finance
- that organization? And that's what's really key
- about the way that the Office operates and a
- 17 little bit different than most other government
- 18 agencies is that it is a user fee-funded
- 19 organization.
- Now, it doesn't have unfettered, you
- 21 know, ability to collect enormous fees from the
- 22 users. It has some constraints put on it by

- 1 Congress, by statute, by the user community, by
- 2 PPAC. So it's a very delicate balance that they
- 3 are working within and they do a tremendous job at
- 4 it. You know, I can tell you that this is an
- 5 agency who is constantly looking at their funds.
- 6 They are constantly reforecasting, they do that
- 7 twice a year. And they are reacting at all times
- 8 with respect to increases in the services for the
- 9 expenses of the outside services they contract
- 10 with. They have changes in labor fees, they have
- 11 changes in the workforce and how big it is. And
- that workforce in particular is one of the biggest
- drivers of their expenses.
- 14 So just to, you know, to tell you a
- 15 little bit about it, the examination process, to
- keep it in perspective, is done by very
- 17 technically trained professionals, oftentimes with
- 18 master's and Ph.D. degrees. And not only are they
- 19 technically savvy and well-educated, but they also
- 20 have to be legally savvy and educated. And so
- we're talking about a very highly professional
- 22 workforce and that tends to come with higher

- 1 salaries, commensurate with the skills that
- 2 they're using.
- 3 So the slides, do we have the numbers?
- 4 No, I'll just speak to the numbers. So the direct
- 5 cost for the USPTO's patent program accounts the
- 6 -- out of Patents, between Patents and Trademarks,
- 7 it accounts for about 70 percent of their
- 8 expenses. So that's about \$3.1 billion out of
- 9 \$4.4 billion. And of that number, 82 percent, or
- 10 2.5 billion, goes to personnel cost. So whenever
- 11 there are adjustments with respect to the number
- of examiners, that has a huge influence and a
- 13 change in their budgeting process and in their
- 14 actually operating process.
- So the other thing to keep in mind is
- that they do need to collect enough fees to cover
- 17 the facilities, the rent, you know, their IT, the
- in-house technology, all those types of things.
- 19 They also have to have Internet connections and
- 20 Internet service. Right? So they have a lot of
- 21 operating expenses associated with operating the
- 22 office.

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1 Now, let's talk about the fee-setting.
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- 2 So it just came out. This is not a process that
- 3 happens every year, so it's a periodic process.
- 4 The Patent Office has not over its entire history
- 5 had fee-setting authority, so this is also
- 6 something, you know, relatively new in its
- 7 operations of being able to have this. So is the
- 8 process perfect? No, it's not and it's never
- 9 going to be perfect around a budgeting type
- 10 process. But was it done with a lot of thought
- and collaboration and input from folks on the PPAC
- 12 as well as from the public community? Yes, it
- 13 was. Is everybody going to agree exactly what
- 14 decisions were made on which fees to increase and
- which ones not to increase and by how much? No,
- we're not always going to agree because we all are
- 17 going to have a slightly different focus with
- 18 respect to what we think is the most important.
- 19 But rest assured that through this process, all of
- 20 that was seriously considered and decisions had to
- 21 be made, which is always the case with budgets.
- 22 And to the staff's credit, they are always

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1 constantly looking at ways, how can we do this
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- 2 better? How do we make the process even more
- 3 efficient?
- 4 So with that as background, if anybody
- 5 has any questions, I'll be happy to try to address
- 6 them or deflect them to somebody who knows the
- 7 real answer. But if no questions, then I'll turn
- 8 it over to Suzanne and Nick and Jay.
- 9 MS. HARRISON: Okay, great. Thanks, Eb.
- 10 So one of the things that we did in this report is
- 11 that we introduced a word called "sequestration."
- 12 That's not a word that I've ever heard in business
- 13 before that many of us in this room even know what
- 14 it is. And so we thought it would be important to
- 15 actually call it out a little bit and have a
- 16 further discussion about it. In fact, in the
- 17 history of PPAC, I think it's only come up one
- 18 other time. So I've asked Jay and Nick to sit
- down and let's help educate everyone on what is
- 20 sequestration and what does that mean for the
- 21 Patent Office?
- So, of course, the first question,

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gentlemen, is what is sequestration?
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- 2 JAY: Great. Thank you. I don't have
- 3 the clicker, which is not a problem, but if
- 4 someone could just click to the slides on
- 5 sequestration, that might make it --
- 6 MS. HARRISON: I don't think we have any
- 7 slides on sequestration.
- 8 JAY: Okay. Maybe they didn't get to
- 9 PPAC. All right, so we'll just speak to it. So
- 10 let's talk about what sequestration is. I'm going
- 11 to ask Nick to start with the legal framework and
- then I'll talk about the practical application.
- NICK: Sure. Thanks, Jay. So
- 14 sequestration is a budget control mechanism that
- originates in the Balanced Budget and Emergency
- 16 Deficit Control Act of 1985, which was a measure
- 17 created by Congress to basically impose spending
- 18 caps on the federal government and provide that
- 19 there would be automatic spending cuts if budgets
- 20 exceeded those caps. And so this is a thing that
- 21 at times, since then, has sort of been at risk for
- the government, depending on what the caps are set

- 1 at. And what folks may remember is that in 2013,
- 2 sequestration was imposed on the federal
- 3 government because spending exceeded caps that had
- 4 been agreed to as part of prior spending
- 5 agreements between the administration at the time
- 6 and Congress.
- 7 And so in 2013, there were cuts made
- 8 across the federal government based on a certain
- 9 percentage of budgets in order to achieve a
- 10 certain, you know, kind of set amount of a cut in
- 11 government spending. And these were generally
- applied across the executive branch, an amount
- 13 allocated to the Department of Commerce, a part of
- 14 that commensurately allocated to the PTO. And at
- the time, the PTO was sequestered, I think,
- 16 slightly under \$150 million, which meant that
- 17 budget authority that the Office had, fees that we
- 18 collected, were removed from our access. They
- 19 were rendered unavailable for obligation. The
- 20 money was collected from fee payers. It sits in
- 21 an account, but it became part of funds not unlike
- 22 fees that had been diverted at times in the past,

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1 unavailable for the Office to use. And the high
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- level policy theory here, I think, is you're
- 3 reducing government spending by imposing these
- 4 sort of strict limits.
- 5 The Financial Responsibility Act of,
- 6 gee, I think it's 2023 raised again the specter of
- 7 sequestration by setting for budget caps that
- 8 would sort of apply if the government did not
- 9 achieve full-year spending that came in under
- 10 those caps. That was avoided in fiscal year '24
- and sequestration did not apply. But the risk
- 12 exists out there that for fiscal year '25, the
- 13 year that we're in now, that depending on what
- happens with annual appropriation bills,
- 15 sequestration could again be imposed. And we know
- historically, in 2013, it applied to the Office.
- 17 The statutory scheme that governs
- 18 sequestration, you know, is both sort of complex
- in its operation, but has various exemptions and
- 20 things that are not counted under sequestration.
- 21 The Office is not included in those things. We
- 22 may talk about that a little bit, but that is the

- 1 high level legal background.
- MS. HARRISON: Okay. So just one other
- 3 thing I want to highlight. So going back to 2013,
- 4 the Office had no choice but to comply and it
- 5 appears that it happened somewhat quickly. Right?
- 6 It wasn't something that was a normal course of
- 7 business. This was a new thing. And so, again,
- 8 it seemed like as part of all of the government
- 9 reduction across the board, that the USPTO
- 10 complied, correct?
- 11 NICK: Yeah, that's right.
- MS. HARRISON: Okay. And Jay, do you
- want to talk a little bit about, you know, how is
- 14 the USPTO preparing and what does this mean?
- JAY: Yeah. So the reason we're talking
- about this today is that, you know, sequestration,
- because we don't fall under any of the exemptions
- in the, I want to get the name of the act correct,
- 19 the Balanced Budget and Deficit Control Act, I
- 20 believe, there is a threat under the Fiscal
- 21 Responsibility Act that sequestration could happen
- 22 this year. And it could happen very similarly to

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1 how it happened in 2013, and that is there are
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- 2 certain deadlines built into that act, namely
- 3 April 30th is the deadline. And if appropriations
- are not enacted by that date, a sequestration
- 5 would occur. As of today, we're operating under a
- 6 continuing resolution. And so if that were to
- 7 continue, theoretically, it could happen.
- 8 I think the second part of your
- 9 question, or the implied part of your question is,
- 10 well, how do we prepare for this? What do we do?
- 11 And I think that the law really defines the ways
- 12 out, if you will. I don't think there's anything
- 13 that the USPTO can do or anything that the PPAC
- 14 can do. It's really up to Congress and the legal
- framework so that there's three possible outcomes.
- Outcome number one is they somehow pass
- an appropriation by April 30th or they exempt
- agencies from the sequester as part of whatever
- 19 appropriations deal they come up with. I think
- 20 that's the most likely outcome, honestly. A
- 21 second outcome I think is highly improbable this
- 22 year, but theoretically could happen, is Congress

- 1 could choose to include the USPTO in one of the
- 2 exempt categories and that would presumably solve
- 3 this issue prospectively. And then the third
- 4 would be if in the appropriations process right
- 5 now it's unclear whether our fees are voluntary or
- 6 not voluntary. It's just silent on that. And so
- 7 if Congress were to affirmatively state that our
- 8 fees were voluntary, we would then fit under the
- 9 exemptions of the Balanced Budget and Deficit
- 10 Control Act, and that would also exempt the Agency
- 11 from sequestration. But, again, I think those
- 12 last two are improbable.?
- MS. HARRISON: Right. So I think that
- it's important for everyone to understand that
- 15 this risk exists. It also is important for
- 16 everyone to understand that the USPTO is looking
- 17 ahead and working with PPAC to try and figure out
- 18 what are those three possibilities and what are
- 19 the likelihood of each one of those as to time
- 20 moves on, and that we are all taking very careful
- 21 consideration of the fees and how they're being
- 22 used. But, again, if the USPTO is not exempt from

- 1 sequestration and it occurs, they have to comply.
- 2 That is the most important thing.
- 3 So, again, working through strategies,
- 4 we encourage everyone to ask questions, to learn
- 5 more about it because I think the key takeaways
- 6 are that there's a risk. There's a risk this
- 7 might happen. And again, the USPTO can only do so
- 8 much in planning and preparing for it. And so,
- 9 again, this is the time for people to ask
- 10 questions, to learn more about it. How can we be
- 11 helpful? Anybody?
- 12 Nick and Jay, is there anything you want
- to add on the end here?
- JAY: No, I think just continuing to
- have visibility on this risk is important. I do
- think, as you said in your opening remarks, it's
- an obscure term. It's an unusual thing that would
- 18 happen. You know that we have had meetings in the
- past where we've talked about the \$1 billion-plus
- in fees that are unavailable to the Agency. Well,
- 21 \$147 million of those fees are from the last
- 22 sequester that are sitting in that account.

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1 MS. HARRISON: Right. And we don't
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- 2 particularly want to add to that. All right.
- 3 Thank you, everyone. Heidi, I'll turn it over to
- 4 you.
- 5 MS. NEBEL: Okay. The next section of
- 6 the report is on patent pendency and quality. I
- 7 was very excited and honored to be involved in
- 8 this report. As an attorney leading a team of
- 9 attorneys in private practice that prosecute
- 10 patents all day, every day, this is where I live,
- 11 so this is near and dear to my heart.
- The Patent Office is experiencing an
- 13 unprecedented level of unexamined applications at
- 14 this time. Currently, as of the time of writing
- 15 the report, there were 796,555 applications that
- were waiting to be examined. For context, in
- 17 2018, there were 526,000 patent applications
- 18 waiting to be examined. That's a 66 percent
- increase since 2018. In financial year 2023,
- 20 there were 750,000. So from 2023 to 2024, we saw
- 21 another 6 percent increase.
- There was a confluence of factors in

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1 2019 that led to this backlog. First of all,
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- 2 examiners were given more time to examine
- 3 applications due to quality initiatives, which, of
- 4 course, is important. During the pandemic, there
- 5 were attrition levels of examiners, which I think
- 6 all industry experienced. Also, examiners during
- 7 this attrition were not replaced in light of
- 8 expected decrease in filings consistent with
- 9 economic predictors. My firm felt the same way.
- 10 We thought filings would go down and they actually
- 11 went up. The slowdown in filings that the Patent
- 12 Office experienced was more modest and short-lived
- 13 than expected.
- 14 So tackling this backlog has been a
- primary initiative of the Patent Office and they
- 16 have developed a multiprong approach that is quite
- impressive to deal with this, and we have started
- seeing some modest gains in handling this. In
- July, as Derek mentioned, 2024, the average number
- of months from a patent application filing date to
- a first Office Action was a little over 19.7
- 22 months. I think his numbers are more updated than

- 1 mine. And at the end of financial year 2023 it
- 2 was 20.5. So we have seen a little bit of a
- decrease in the pendency until first action.
- 4 So the USPTO has a four target approach
- 5 to deal with this. First of all, of course,
- 6 hiring and training initiatives, improving
- 7 workflow, use of AI and IT tools, and compensation
- 8 rewards. And the report includes a graphic that
- 9 kind of shows all these four areas.
- 10 First of all, in hiring and training
- fiscal year 2023, the Patent's Business Unit hired
- 12 644 patent examiners; 2024, they've onboarded 853
- 13 hires. And no, no, it's higher. So, Sally,
- what's the current number?
- SALLY: We had a goal of 800 and we got
- 16 959.
- 17 MS. NEBEL: Fantastic. Fantastic. And
- next year our target for September 30th, 2025, is
- 19 1,600 new examiners. To ensure the success of the
- 20 hiring initiatives, the Patent Business Unit
- 21 created a team to undertake a whole agency
- approach to reimagine the hiring process. PPAC

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1 has been advised on a number of initiatives in
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- this regard, some of which include, of course,
- 3 rewriting the job description to common English
- and seeking out STEM people that might have
- 5 appropriate backgrounds to become examiners. Of
- 6 course, with this kind of massive hiring, proper
- 7 training of new examiners becomes absolutely
- 8 critical and the USPTO has delivered to new
- 9 examiners approximately 423,400 hours of
- 10 onboarding education in financial year 2023.
- 11 For improving workflow, which is also a
- 12 significant part of the initiative, the USPTO is
- 13 addressing concerns with current processes for
- determining examination time, routing, and
- 15 classification of inventions. They undertook a
- 16 study using skill sets as appropriate clustering
- method for assigning work and differentiating
- 18 examination time based upon the complexity of
- 19 applications. For financial year 2024, the USPTO
- 20 developed an AI auto classification tool and
- 21 associated models. Next steps will include
- training of models to obtain greater accuracy.

- 1 PPAC, of course, fully supports all of these
- 2 initiatives.
- Further use of AI and IT tools. IT
- 4 outages have adversely impacted efficiency, the
- 5 ability to work, and, at times, employee
- 6 satisfaction. The USPTO was affected by a global
- 7 CrowdStrike outage incident which further impacted
- 8 examiners' time and it was estimated that the
- 9 Office lost up to 80,000-plus hours of time before
- 10 the situation was resolved. The USPTO has
- implemented and reported to PPAC in executive
- 12 session measures to address and prevent these
- 13 kinds of attacks in the future.
- The other final prong was, of course,
- 15 compensation and rewards. Show me the money. So
- they've got all kinds of plans to help examiners
- 17 to get increase in pay and bonuses for production
- achievements. In 2024, the USPTO implemented the
- 19 First Action Date Order Award for Supervisors
- 20 which provides an opportunity based on the percent
- of first actions directed to the corresponding
- 22 number of oldest cases available to act upon.

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1 PPAC, of course, applauds these as well.
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- 2 And it is absolutely critical in this
- 3 time that the PTO be given resources that needed
- 4 to undertake all of these initiatives and
- 5 primarily to hire 1,600 examiners. You hear
- 6 things about hiring freezes and cost-cutting. We
- 7 cannot afford to let that happen.
- 8 Maintaining quality in an area of this
- 9 kind of mass hiring and training will be also a
- 10 huge challenge. Training a new examiner takes
- 11 time from senior examiners to help train and it
- 12 typically takes two to four years for an examiner
- to be fully trained and to meet full-time examiner
- 14 expectations. Currently, we are experiencing a
- 15 slight decline in patent quality statistics and we
- need to make sure that that does not continue.
- 17 The percentage of customers reporting quality as
- good or excellent fell in 2024 from 66 percent to
- 19 60 percent. The percentage of customers reporting
- 20 quality is very poor or poor increased from 8
- 21 percent to 10 percent. While good and excellent
- ratings remain relatively high, 60 percent or

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1 better for six consecutive surveys, there is a
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- 2 slight trend down and we need to make sure that
- 3 that's not continued.
- 4 Finally, the Patent Business Unit and
- 5 they reported to this in executive session
- 6 yesterday, there's an Oversight Pendency --
- 7 Oversight Strategy Team post that has been put in
- 8 place with an intra-agency group of people who are
- 9 tasked with overseeing pendency initiatives to
- 10 develop a long-term plan to address all these
- 11 challenges. PPAC strongly supports this
- initiative as it will be key to oversee all
- initiatives and to monitor success.
- 14 The key takeaways from my section which
- are on the slide, the Patent Office is
- 16 experiencing an unprecedented unexamined inventory
- and is using a multifaceted approach to manage
- 18 this. Care must be taken with additional hires to
- 19 ensure that training, which will require
- 20 additional work for current examiners, is not
- 21 curtailed, particularly in light of the small
- declines in patent examination satisfaction.

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1 Previous patent examiner incentives to increase
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- 2 workload have only shown moderate success, but
- 3 we're hopeful that there will be additional
- 4 success with these new incentives.
- 5 Finally, patent quality needs to be
- 6 understood and cease to be undermined by the PTAB
- 7 invalidation rate, which remains over 50 percent
- 8 for claims that are reviewed in post-grant
- 9 challenges.
- 10 Any questions? All right. Thank you.
- MS. DARDEN: Perfect segue to you Henry
- 12 to talk a little bit about PTAB.
- MR. HADAD: Thanks, Lolita. Good
- morning, everyone. First, let me, on behalf of
- 15 PPAC, express gratitude to both the PTAB and their
- leadership for their thoughtful collaboration with
- 17 the PPAC as well as their expertise, dedication,
- and hard work over the year. This year we saw
- 19 roughly 5,500 newly filed cases, about 80 percent
- of them being ex parte appeals, with about an
- 21 equivalent amount of issued decisions in 2024;
- again, the vast majority ex parte appeals. And

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1 I'll just want to note that the time period for
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- decision on ex parte appeals, about 12.4 months on
- 3 average this year, is a huge improvement over what
- 4 -- when I started out being years of waiting for
- 5 these type of appeals. And my hope is that,
- 6 further to Heidi's point, that further uptake of
- 7 ex parte appeals will improve quality and decrease
- 8 pendency in the long run. So PPAC looks forward
- 9 to working with the PTAB on that.
- 10 In addition, there were five significant
- 11 rules packages that were discussed, four of which
- were completed this year, to Olivia's point, and
- 13 significant community outreach by the PTAB. So
- thank you for all that hard work.
- In 2011, Congress passed the AIA, which
- 16 established the PTAB and the two types of
- 17 post-grant proceedings under the AIA: PGR, post
- grant reviews, and IPR, inter partes reviews.
- 19 Congress intended these proceedings to establish a
- 20 more efficient and streamlined patent system that
- 21 will improve patent quality and limit unnecessary
- 22 counterproductive litigation costs. As most of

- 1 the people know listening, I'm sure, PGR may be
- based on any statutory ground challenging
- 3 validity, but must be brought within nine months
- of patent grant, akin to a European opposition.
- 5 In the last year, however, only 3 percent of all
- 6 post-grant petitions sought PGR review.
- 7 IPRs, on the contrary, can be brought
- 8 anytime, but must be based on printed
- 9 publications, novelty, or obviousness on the basis
- of patents or printed publications. In contrast
- 11 to PGRs, 97 percent of all post-grant petitions
- 12 sought IPR review, and PPAC would like the USPTO
- 13 to continue to explore ways to increase earlier
- 14 PGR challenges and decrease later IPR challenges.
- 15 While institution rates of IPRs are lower than
- their all-time high in the 2015/2016 timeframe,
- 17 they have been creeping up over the last 5 years,
- increasing by 10 percent during that period.
- 19 Looking at statistics over the last year, petition
- 20 institution is denied about 25 percent of the
- 21 time. For those proceedings, however, that went
- 22 to final written decision, all patent claims are

- 1 invalidated 68 percent of the time while mixed
- 2 results, some upheld, some invalidated, were
- 3 received 16 percent of the time. So while some or
- 4 all of the patent claims were invalidated 84
- 5 percent of the time, all claims were upheld just
- 6 16 percent of the time during this last calendar
- 7 year. Taking a step back, PPAC agrees with the
- 8 USP efforts to ensure that robust and reliable
- 9 patent rights are granted that drive innovation,
- job creation, economic growth, and global
- 11 competitiveness. IPRs are sought often later in a
- 12 patent's term after innovators have invested in
- 13 the development and commercialization of the claim
- 14 technology based on the existence of the granted
- 15 patent right. They are often duplicative with
- district court litigation or filed serially by
- 17 multiple petitioners. The late timing of IPRs and
- increased invalidity determinations have led to a
- disruption in patent holders' expectations and
- 20 their enjoyment of quiet title. This in turn has
- 21 led certain patent IP stakeholders to question the
- strength of the patent right and whether it is

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1 sufficiently robust and reliable to justify the
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- 2 risks and investment in discovering and developing
- 3 inventive technologies.
- 4 The risk of some or all of your patent
- 5 claims challenged in IPRs being invalidated
- 6 remains significant. This suggests that either
- 7 initial examination of patent applications needs
- 8 improvement or the nature of post-grant procedures
- 9 make it challenging for patents to be upheld. I
- 10 suspect it is a combination of both. While
- 11 legislation is being considered that may
- 12 potentially balance post-grant procedures, there
- are many things that USPTO is doing and can do to
- improve patent exercise examination quality as
- well as better balance IPR procedures. One such
- 16 effort will be discussed later today by Sandie
- 17 Spyrou. This is what we call the "closing the
- loop" study, which takes findings from PTAB
- determinations and looking at the initial
- 20 examination and seeing where there's potential
- 21 areas of improvement. So we look forward to those
- 22 -- that discussion a little later, Sandie.

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                 But in terms of the key takeaways, and
       this is foreshadowing a little bit of Sandie's
 2
       discussion, USPTO should continue to study and
       release data to improve patent quality and
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       decrease later invalidations, identifying key
       areas for future study based on this data,
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       including search capabilities, potential for
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       hindsight bias and the use of expert testimony
       during IPR proceedings consistent with the
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       statutory basis of IPRs. In addition, PPAC
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       encourages USPTO consider whether the doctrine of
       inequitable conduct as currently applied is
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13
       encouraging well-intentioned behavior, but that
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       ultimately decreases the quality of examination
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       and any resulting patents. This is largely
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       because the behavior is to cite a lot and maybe
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       say a little during patent prosecution. And if we
       can provide guidance which encourages patent
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       applicants to say more and maybe more specifically
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       highlight the most relevant art, that should
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       improve quality and lead to decreased
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       invalidations down the road.
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1 And further to that point and I just
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- 2 lost my notes here, here we go, there is a
- 3 statute, 325(d), which is the basis of some of the
- 4 discretionary denial rulemaking that was released
- 5 at least for comment earlier this year, which, if
- 6 used in a robust way, we believe would encourage
- greater patent quality. And by highlighting a
- 8 limited number of references during examination,
- 9 we encourage the PTO and PTAB to consider how to
- 10 best use 325(d) to encourage these type of
- 11 behaviors.
- 12 And I will stop there on the PTAB
- 13 section of the report, Lolita, and see if there's
- 14 any questions.
- MS. DARDEN: Okay.
- MR. HADAD: Okay, seeing none. This
- section of the report is designated around the
- 18 USPTO FDA study that was released earlier this
- 19 year, but more broadly is about the role of USPTO
- in developing and releasing empirical data from an
- 21 unbiased source that will be the basis of sound IP
- 22 policy. USPTO is uniquely positioned to play this

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1 role and often, at least there are views that some
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- of the data being generated recently is more
- 3 agenda-driven data that can be at times misleading
- 4 from all sides of the patent policy debate. So
- 5 having the USPTO play this role is really, really
- 6 important.
- 7 So based on some of these questions, a
- 8 couple of years ago, Senator Tom Tillis, ranking
- 9 member of the Senate Judiciary IP Subcommittee,
- 10 requested that USPTO and FDA conduct an
- independent assessment to study data from several
- data sources about patenting practices,
- 13 particularly in the biopharmaceutical industry.
- 14 And on June 7th of this year, they published its
- 15 responsive report entitled "Drug Patent and
- 16 Exclusivity Study." The purpose of the study was
- to provide a baseline approach that researchers
- and policymakers can use in future analyses for
- examining the number of years from the time a new
- 20 drug application is approved until the launch of a
- 21 first generic.
- 22 So really, the gist of what policymakers

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1 want to understand, what is the meaningful period
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- of exclusivity for a biopharmaceutical product?
- 3 Using publicly accessible data the PTO and FDA
- 4 spent a whole lot of time analyzing it and
- 5 reported case studies on 25 new drug applications.
- 6 There were a number of important findings and I'll
- 7 just summarize them at a high level.
- 8 First, the 25 studied products did not
- 9 have unusually long periods of market exclusivity,
- and the report showed a range from about 3 to 16
- 11 years of market exclusivity for these products.
- 12 Second, continued innovation and patents
- 13 based on those innovations, that is after the
- initial approval of a product, did not extend
- 15 market exclusivity on those original studied
- 16 products. So the fact that later filed patents
- 17 are being granted did not slow down the uptake of
- 18 generics.
- 19 Third and fourth, counting the number of
- 20 pending or abandoned patent applications or,
- 21 frankly, just the number of patents or regulatory
- 22 exclusivities in the orange book is not a

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1 meaningful way to determine duration of product
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- 2 market exclusivity. You have to really study the
- 3 data and get an understanding of actual -- the
- 4 market dynamic and when the generics entered the
- 5 market.
- 6 And last, having more than one patent
- 7 that covers a product is common across different
- 8 technologies, given that multiple innovations may
- 9 be found in a single product or its use.
- 10 So those five conclusions are meaningful
- 11 conclusions and helpful in informing the IP policy
- debate. And we applaud USPTO and FDA for
- 13 completing this report and providing accurate
- 14 empirical data for these purposes. But beyond
- this report, the PPAC hopes this approach will
- 16 continue in the future across all IP policy
- debates to make sure that accurate data is the
- 18 foundation of sound innovation policy in this
- 19 country.
- Thank you. And that's it for me unless
- 21 there's any questions.
- MS. DARDEN: Okay. We don't see any

- 1 questions. So we will pass the mic over to Dr.
- 2 Slepian, who will talk about AI and emerging
- 3 technology initiatives.
- 4 MR. SLEPIAN: Thank you, Lolita. First
- of all, it's been an honor and privilege to be
- 6 able to work on this topic and I want to thank our
- 7 chair, Lolita Darden, for giving me this task.
- 8 It's also been a tremendous honor and privilege
- 9 and fun, frankly, to work with Charles Kim and
- 10 with Matt Sked and Jerry Ma, who have been
- involved in this topic in a very deep way.
- I don't think I have to tell anyone here
- 13 how AI has been top of the line in all news
- 14 matters today. We all realize that AI
- increasingly is having penetrance and diffusion
- into all aspects of our life and our work. And
- 17 certainly that applies to USPTO. I think that we
- 18 kind of recognize that AI is really a
- 19 transformative technology which combines the power
- 20 and capability of advanced computing and computer
- 21 science with data set to really solve problems, as
- 22 opposed to simple AI which has been around for a

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long time. We should realize that AI, while it's
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- 2 top of the headline today, really related to large
- 3 language models and associative generative AI has
- 4 been really around for 70 years. And it's a big
- 5 spectrum which really runs from the concept of big
- data to machine learning to deep learning to
- 7 neural networks to more advanced multiple neural
- 8 networks that are integrated and then moving into
- 9 natural language processing into generative AI and
- 10 associative generation of AI. So it's sort of
- 11 like saying law, medicine, or science. It's a
- 12 very deep, broad thing.
- But if you think about how AI actually
- 14 applies to USPTO, in our report we put a little
- graphic in there which describes many ways in
- 16 which it can lean in and integrate. If you want
- 17 to distill that for simplicity, we outlined it
- into three areas. One, can AI actually be
- inventor? Can AI be involved in the inventive
- 20 step? Secondly, can AI actually be the subject
- 21 matter of invention and integrate into an
- inventive description? And then thirdly, as we

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1 heard from Heidi and others earlier, AI can also
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- 2 be greatly facilitative as far as relating to IT
- 3 and rapidly being utilized for enterprise
- activities to speed up activity here, reduce
- 5 pendency, improve quality, and other things like
- 6 that. And related to that, it's been a pleasure
- 7 to work with Rick Seidel and Jamie Holcomb and
- 8 others on those aspects. There's been a little
- 9 overlap between our different subgroups.
- 10 As far as AI as a contributor to the
- inventive process, it all started with this
- "DABUS" case, which ultimately led to Federal
- 13 Circuit Thaler v. Vidal, which basically made it
- 14 clear that it involves the individual. And the
- 15 Supreme Court precedent was that the individual is
- 16 really human and that actually involves human
- inventivity. But we are all working with AI. I'm
- sure everyone around the room has played around
- 19 with Chat or Llama or Claude or one of the other
- 20 AI models and realizes that it can be a helper, it
- 21 can be associative, it can be augmentative, it can
- 22 be integrative.

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                 And as it relates to that, we then are
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       getting into the sort of parsing and nuance
       aspects of can AI be augmentative in the inventive
 3
       process? And related to that, there was a Request
 5
       for Comments in 2023, which then led to a guidance
       document which also came out in February of 2024.
 6
       I have it here. And that gave us greater detail
 8
       about inventorship analysis that really has to
 9
       focus on the human contribution, the so-called
10
       Pannu factors, particularly the first Pannu
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       factor, was there a significant contribution of
       the human to this versus just having AI generate
12
13
       things?
14
                 So in the PPAC report we talked
       extensively about this, we emphasized how nice it
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16
       has been, and the PTO continues to provide useful
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       examples because this really is a thing where you
       learn by doing and you have to go through this.
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       So for the examiner, going through more and more
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       cases will be useful for the public and inventors
21
       to be able to see how this is being developed is
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going to be really an important thing.

- 1 We in the report encouraged that we have
- 2 to now continue to look at how AI could serve as
- 3 both important information provider, prior art
- 4 gatherer, subject matter explainer, and
- 5 information synthesizer. And that sort of gets to
- 6 the level of 101, 102, 103, and 112, and other
- 7 aspects and things related to the PHOSITA and
- 8 disclosures which are active, ongoing things going
- 9 on now.
- 10 AI is the subject matter for invention
- is the second item we talked about in the report.
- 12 And it's very interesting if you look at the
- 13 statistics on IP that's moving forward through the
- 14 Agency. From 2018 to 2023, we saw an increase of
- 15 AI patent applications by 33 percent, moving from
- 16 76,000 to over 101,000 by 2023. But the more
- 17 notable statistic to me is that the share of all
- 18 patents granted by USPTO that can contains some AI
- 19 element has grown to now 24 percent. So think
- 20 about that. That's why this is a really important
- 21 topic to really understand can you patent this?
- How is this working? Because down the road we

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just heard from Henry, we don't want to really
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- 2 generate more and more controversial cases which
- 3 are then going to have to be adjudicated as to
- 4 their validity.
- 5 So related to this, the guidance
- documents has just been issued in July on subject
- 7 matter eligibility. This really went into detail
- 8 in terms of 101. It really gets to the two-step
- 9 analysis. First is the patent being put forward
- 10 that relates to the typical four claim categories
- of process, machine manufacturer, composition, and
- 12 matter. And then it applies the second Supreme
- 13 Court two-part Alice Mayo test, which basically
- 14 says are we dealing with a judicial exception
- 15 related to math, mathematical concept, or a mental
- 16 process?
- 17 And then secondarily, if so, does the
- 18 sort of AI piece and AI being sort of considered
- math, does it actually integrate into a practical
- 20 application? You just can't smear on AI like
- 21 peanut butter glossing on the cake. It has to
- really be integrated into the corpus of what

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1 you're doing to really be valid. What we
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- 2 encourage from PPAC is that we continue to get
- 3 into the depths of this aspect of how this really
- 4 integrates because that's going to be more and
- 5 more nuanced as we go forward.
- The third part of the report talks about
- 7 AI as a facilitative tool for enterprise and
- 8 workflow. This integrates with what Charles is
- 9 going to talk about here in just a minute. But
- 10 clearly, we've heard about the massive explosion
- in the number of patents that we're dealing with.
- 12 We've heard about the issue of dependency. I
- 13 compliment PTO for the tools that they have
- developed with external vendors as well as with
- internal groups which are now being tested, such
- as MLTD, substantial similarity, and other things
- 17 that are being utilized.
- 18 The other important point is also, that
- 19 we covered in the report, relates to outreach and
- 20 education. So let me touch on education briefly.
- 21 We're all new to this space. You didn't go to
- 22 college and suddenly learn about AI, and if you

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did, it's about machine learning, it's not about
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- what we're doing today. So really the examiners
- 3 constantly have to be updated on this. And I
- 4 compliment the Agency for what they've done. In
- 5 2017, they had 145 courses related to this, but
- 6 over the last several years now with this
- 7 technology training on demand, they now have over
- 8 1,400 courses that are available. And there have
- 9 been many external seminars that have gone on.
- 10 They have worked with leading universities, like
- 11 Carnegie Mellon and others, to develop courses and
- 12 bring that. And I think we encourage that, that
- 13 we diffuse this in everyone's education on AI,
- 14 because you know, rising tides raise all boats and
- we want to see that in the AI space.
- The final thing relates to AI outreach
- 17 and there are many, many outreach activities. We
- 18 heard from Lateef about inclusive innovation and
- other things. Also mentioned in the report is the
- 20 idea of inclusive AI, which will be important for
- 21 being able to distribute this new technology
- 22 across the United States to drive inventorship in

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1 a very big way.
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- 2 So we listed the key takeaways. They're
- 3 on the two slides, but I'll summarize them
- quickly. AI continues to grow in terms of the
- 5 technology applicability across fields. As an
- 6 agency of invention and innovation, PTO needs to
- 7 continue to explore, utilize, and advance AI as it
- 8 relates to being a facilitator of invention, the
- 9 subject matter of invention, and a propelling tool
- 10 to drive PTO enterprise effectiveness. USPTO
- should continue to issue and refine guidance
- documents, as was done this past year, as to the
- nuances of AI mechanisms, algorithms, and
- operation as they continue to be revealed. And
- finally, investing in continued training of USPTO
- 16 personnel, from the examiner to the administrator,
- is going to be essential to continue issuance and
- 18 stewardship of optimal, robust, quality patents in
- an increasingly complex interdisciplinary
- 20 technical area while facilitating organizations
- 21 efficiency and effectiveness.
- Thank you very much. Are there any

- 1 questions? It's been a pleasure to work on this
- 2 topic.
- 3 MS. DARDEN: Charles?
- 4 MR. DUAN: All right, thank you. And so
- 5 I guess I'm going last and have 30 minutes. I'm
- 6 not going to spend all of that time, but I would
- 7 like to begin by echoing the thanks that Marvin
- 8 gave.
- 9 So on the Artificial Intelligence and IT
- 10 Subcommittee I've had the pleasure of working with
- 11 folks like Jamie Holcomb, Deborah Stevens, Rick
- 12 Seidel, who's right there, Greg Vidovich, and many
- others at the USPTO. And I really just appreciate
- 14 all of your thoughtfulness and collaborativeness
- and just willingness to engage with the PPAC and
- 16 to share thoughts and to think through difficult
- 17 problems, particularly in the space of information
- 18 technology, which really just underlies so much of
- 19 what the USPTO does. It's the foundation of how
- 20 it can perform its mission, its mission of
- 21 examination. I think that that collaboration has
- just been really wonderful and I want to begin by

- 1 thanking all of you for that.
- 2 Since I am going last, I'd also like to
- 3 thank the rest of the folks at USPTO who we've had
- 4 the chance to work with over the last three years,
- 5 and also my fellow members on PPAC. I've just
- 6 learned so much from all of you and have really,
- 7 really enjoyed working together to serve this
- 8 nation and serve this Agency.
- 9 So as I mentioned, information
- 10 technology is very important to the USPTO. The
- 11 Agency runs numerous systems and services that
- 12 allow for patent examination to happen and that
- also allow for the public to engage with the
- 14 patenting process. That includes the website
- itself, which provides information to inventors.
- 16 That includes Patent Center, which allows for the
- 17 filing of applications. That includes the Patent
- 18 Search tool, which allows members of the public to
- 19 search applications, and many other services and
- 20 tools that the Agency makes available. And so our
- 21 focus this year has been engaging with the Office
- 22 and thinking through how these work together with

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1 those public-oriented missions of the Agency. And
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- 2 so the report breaks these down into three buckets
- 3 and I will go through each briefly.
- 4 So the first has been IT modernization.
- 5 The USPTO has been very much engaged in trying to
- 6 modernize its IT services and particularly moving
- 7 them toward cloud providers. These are designed
- 8 to ensure greater resiliency and availability of
- 9 services and also to simplify the process of
- 10 upgrading systems as we understand them because
- 11 the cloud providers can maintain the hardware,
- 12 which simplifies the process. And we believe that
- 13 this is important.
- 14 One of the things that we have engaged
- 15 closely with the Agency on has been the question
- of avoiding lock into any particular service.
- 17 We've had multiple conversations with folks and
- we've been very pleased at the ways that the
- 19 Agency has been thinking about making sure that
- 20 they're able to move between different service
- 21 providers and able to maintain competition in the
- 22 procurement and contracting process. I think that

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1 that's important and that's been important to many
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- of us on PPAC. So we encourage the Agency to
- 3 continue working on that.
- 4 Finances are obviously an important part
- of IT modernization. And so Eb gave us a great
- 6 overview of the financial considerations. On the
- 7 IT space, we understand that cost containment is
- 8 the overarching strategy. The idea is that
- 9 despite all of these upgrades going on, the Agency
- is still maintaining costs at current levels and
- 11 sometimes trying to reduce them. And over the
- 12 years, as we understand, the IT budget has
- 13 actually decreased by about a percent in many
- 14 years. That's been the ongoing goal. We
- understand that this year there may be a slight
- increase to IT costs, largely driven by
- 17 across-the-board government salary increases that
- were largely unavoidable by the Agency.
- 19 Nevertheless, costs for information technology
- 20 remain well below inflation. And we think that
- 21 the strategy has been working well and has been
- 22 delivering appropriate value to taxpayers and

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1 customers of the USPTO. So we encourage
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- 2 continuation of this cost containment strategy.
- A second focus has been cybersecurity.
- 4 As Heidi mentioned, there was a major CrowdStrike
- 5 issue which caused significant outages for patent
- 6 examiners. We looked at the USPTO's response to
- 7 this, the ways in which they were able to
- 8 coordinate their IT staff to -- basically to
- 9 repair people's computers. The Agency was able to
- 10 do this very efficiently despite having a
- 11 workforce that is all over the country. And I
- 12 think that that was very impressive and
- potentially a model for folks to follow.
- 14 Another thing that we've been following
- 15 has been a number of issues identified with
- 16 unintentional public disclosure of assignment data
- 17 and other data. There were a couple of incidents
- of this reported over this year. These are
- obviously concerning because of the fact that they
- 20 potentially reveal data that ought to be
- 21 confidential. The USPTO acted very quickly to
- respond to them and we think that that's an

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1 important -- that that was important and applaud
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- 2 them for their rapid response to these sorts of
- 3 issues.
- 4 One thing it does suggest to us is that
- 5 there are opportunities for further engagement on
- 6 what we call user testing and what the Agency
- 7 calls user testing of these public services. And
- 8 so that's been our third area of focus this year.
- 9 So user testing is the idea that when an
- 10 information technology service is released, you
- 11 want to make sure that it's tested not just by
- 12 programmatic methods, not just by computer code,
- 13 but also by the types of people who are going to
- 14 use it. And so the PTO has engaged in this sort
- of user testing extensively throughout the years,
- 16 particularly with the release of Patent Center.
- 17 There were multiple rounds of beta testing. There
- was this idea scale website in which people could
- 19 submit ideas and feedback.
- 20 And one of the things that we have been
- 21 talking with folks at the Agency about is what are
- 22 ways in which PPAC can engage further in this

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1 process, both to help out directly and also to
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- 2 serve as a bridge for members of the public who
- 3 are interested in making sure that these services
- 4 work not just for the experts, but also for the
- 5 wide range of people who end up using the USPTO's
- 6 website and other services, small inventors,
- 7 members of the public, university researchers, law
- 8 school clinics? And so we've been working on
- 9 developing some internal structures for how to do
- 10 this, for how to organize within PPAC, so that we
- 11 have ways of helping out with this user experience
- 12 testing process.
- 13 This is ongoing work. I anticipate it
- 14 will go on -- it will hopefully be an ongoing
- project and an ongoing collaboration with the
- folks who are developing these services. But I'm
- 17 very excited about it because I think it's a real
- 18 opportunity for us to continue engaging and to
- 19 continue making these services serve the public
- 20 that it's the USPTO's mission and objective to
- 21 serve.
- So I look forward to these ongoing

- 1 collaborations and thank you very much for all of
- the work that we've been able to do together.
- 3 Happy to answer any questions.
- 4 MS. DARDEN: Not seeing any questions
- 5 online or in the room. I want to thank all the
- 6 members of PPAC for presenting this summary of the
- 7 report.
- 8 For those of you who are interested in
- 9 reading the full report, you can find it online.
- 10 If you just conduct an Internet search for PPAC,
- 11 P-P-A-C, Report 2024, you will find it online or
- 12 you can go to the USPTO.gov website and on the
- 13 homepage search "PPAC reports," and it will take
- 14 you to our Reports page.
- In conclusion, with this part of the
- 16 agenda, I want to also thank all the members of
- the USPTO, particularly the Patent group who's
- worked with us this year, Jay's group in
- 19 particular on finance, you all have worked very
- 20 closely with PPAC. We appreciate you taking the
- 21 time to work with us so that we could assist you
- 22 in putting forth all of these initiatives that you

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1 are working on currently. And we've heard about
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- 2 all the great initiatives that are happening from
- 3 Vashali's group in taking steps to reduce patent
- 4 pendency, maintaining quality, IT infrastructure
- 5 improvements, PTAB, looking at studies, and ways
- 6 to reduce the invalidation rates at PTAB.
- 7 So we have a lot going on and I, along
- 8 with members of the PPAC, would like to encourage
- 9 the public to engage with the USPTO. There are
- 10 various regional offices and Community Outreach
- Offices that you can engage with, learn more about
- 12 what's happening at PPAC. In particular, we heard
- 13 this new word "sequestration" today. Learn more
- 14 about sequestration and how you can help the USPTO
- maintain the fees that it collects, so that it
- 16 continue to do this great work that we've heard
- 17 about today.
- 18 At this time, we'd like to pass it over
- 19 to Sandie. We are quite early, Sandie, so if
- you're ready, we'd like to go ahead and hear about
- 21 these great studies at the Patent Trial and Appeal
- Board to help impact invalidation rates.

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1 MS. SPYROU: Great. Thank you very
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- 2 much. I appreciate it and thank you. I'm honored
- 3 to have some time today to talk about the findings
- 4 of this study.
- 5 So my name is Sandie Spyrou and I'm the
- 6 director of the Office of Patent Quality
- 7 Assurance. And I definitely want to put -- give a
- 8 shout-out to my team for the great work that they
- 9 did on this project and also to Vei-Chung Liang,
- 10 who is our leader, who every time I went to him
- and said can I get this information or could you
- do something, he always found a way. So I do want
- 13 to give a shout-out to him, and also to the PPAC
- for all of their insight and support in this study
- and the collaboration that we've had with PTAB.
- So we've had a lot of people working very
- 17 diligently on this study and I want to give a
- 18 shout-out to all of them.
- So let me just put this study into a
- 20 little bit of context. Over the last couple
- 21 years, we have been working very hard between the
- 22 PTAB and Patents to assure that, and we've been

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1 using this term, "close the loop." In other
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- 2 words, what we're talking about is having
- 3 information, significant information exchange
- 4 between the PTAB and Patents. And over the last
- 5 couple years we've been making a lot of strides in
- 6 that avenue. So Patents and the PTAB, we continue
- 7 to work together to exchange information or to
- 8 close the loop to help facilitate better patent
- 9 quality. We've done that through a lot of
- 10 different mechanisms, such as data exchange, cross
- 11 collaborative training, co-implementing
- initiatives and pilot programs, and this study is
- just another continued effort in that regard. So
- 14 you oftentimes will hear this study as a closing
- 15 the loop study in the sense that that's what we're
- 16 trying to do is capture information and make sure
- it's being exchanged between both Patents and
- 18 PTAB.
- 19 And I think we've all seen this slide
- 20 before and we understand that patents that get
- 21 challenged at IPR as a percentage of all patents
- that are issued are very small amount, about a

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1 thousand a year, with only a very small percent of
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- 2 those actually ending up with final written
- decisions, about 200 every year. It's a small
- amount, but it's a small amount that has a big
- 5 impact. Right? So, but when I talk about this
- 6 study and when I talk about the data here, I just
- 7 want to be careful to point out that because it's
- 8 such a small amount, you can't immediately say
- 9 it's a representative sample of all of the
- 10 patents. So let's keep into context the subset of
- 11 patents that we're talking about, and these are
- the ones that get to IPR and then actually go
- 13 through the entire IPR process and end up having
- 14 the final written decision, which are, by nature,
- 15 very stringently vetted by the challengers. And
- they're only letting the ones that they believe
- strongly they're going to be successful in get
- 18 those final written decisions.
- 19 But nonetheless, I don't want to imply
- that because it's a small amount that they're not
- 21 important because they are important and they have
- 22 a great impact on customer confidence and

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1 satisfaction. And we do -- we can learn a lot
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- 2 from looking at these and doing this analysis. So
- 3 even though it's a small percent that get asserted
- 4 that end up getting challenged in the AIA IPR
- 5 proceedings, and there's even a smaller amount
- 6 where all the claims are fully invalidated, they
- 7 are important and it is a learning moment for us
- 8 to look at them. But I do want to make sure that
- 9 we all recognize it's not a representative sample.
- 10 And so we want to be careful in what we pull away
- and when we analyze this data to keep that in
- 12 mind.
- Okay. So what did we study? Well, we
- 14 studied and we considered IPR final written
- decisions that were issued in calendar year '21
- where at least one independent claim was found
- 17 unpatentable. So I want to be clear, that's what
- we're focusing on is the grounds of study where at
- 19 least one independent claim was found
- 20 unpatentable. We didn't look at where the claim
- 21 survived. We looked at the grounds where one
- 22 claim was found unpatentable. Again, you know,

- this doesn't cover, you know, the FWDs where they,
- 2 you know, settled beforehand or didn't get
- 3 instituted, or any of that. We're looking at was
- 4 instituted, went through the whole process, the
- 5 final written decision was written, and at least
- one claim was found unpatentable.
- 7 So when we looked at that in calendar
- 8 year 2020, what we found was that there were 192
- 9 final written decisions in that year where at
- 10 least 1 independent claim was found unpatentable.
- 11 That equates to 304 separate grounds of
- 12 unpatentability that had at least one independent
- 13 claim found unpatentable. And it equates to 166
- 14 challenged patents. So again, it's a small subset
- that has a big impact in people's minds.
- I also wanted to make it clear that by
- 17 the time these patents, you know, were challenged,
- 18 you know, and the final written decision was
- issued over there in calendar year 2021, put into
- 20 perspective when they were actually examined.
- Okay? So if you look all the way over to the left
- 22 on this chart, you can see that some of these were

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1 examined back or were filed back in 1995. That's
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- when I, and I've been here a long time, was a very
- 3 young primary examiner. And I'll admit it, I was
- 4 even around back then. So this was a long time
- 5 ago. This is when we were examining in the shoes
- 6 (phonetic) still. We were flipping through
- 7 patents. We had limited text search capabilities.
- 8 It was a different world back then. Okay?
- 9 So, you know, the spectrum of cases and
- 10 the time and the tools that we were just talking a
- lot about, the tools and the availability of tools
- 12 have changed immensely. Even the law has changed,
- 13 you know, in that time period. So I just want to
- say, you know, make it clear that when we're
- 15 talking about, yeah, the final written decision
- 16 was issued in 2021, this is the spectrum of the
- filing dates for those challenged patents.
- 18 And I wanted to share with you a little
- 19 bit about the evolution of search over that time.
- 20 And we have been very dedicated in those years,
- 21 you know, to make sure that examiners continually
- get updated and the most current search tools, but

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1 they have evolved over time. And even in the
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- 2 buckets that I have here, even in these windows of
- 3 time, it has evolved. In early -- you know, in
- 4 1995 and '98, where we have 9 of these 166
- 5 challenge patents being examined, we were using a
- 6 system that was called Automated Patent Search, or
- 7 APS. And that was a limited mainframe tech
- 8 search, Early Internet. Right? If we remember,
- 9 that was when we were just starting to even know
- 10 what the Internet was. There was about 10 million
- 11 U.S. patents and foreign patents, abstracts, a
- 12 curated library of non-patent literature and some
- 13 Internet resources at that point. But for the
- most part in that timeframe, we were just -- we
- were still searching with paper. We were going to
- 16 the shoes (phonetic) and we were flipping patents.
- 17 Then we moved over to what we call east
- and west searching and that, you know, it evolved
- and it was implemented in stages in 1998 and it
- 20 evolved over time until '21. So we kept adding to
- 21 that. But that was in the time period that I
- 22 would call the explosion of digital information.

- 1 Right? That's when we started to have in-house
- 2 database images. We had text searching capability
- 3 where we can then pull up the image and we could
- 4 highlight the text in the document. We went from
- 5 10 million to 50 million U.S. patents and foreign
- 6 documents. We continually added abstracts, again
- 7 curated libraries, NPL and our Internet sources,
- 8 you know, became great.
- 9 Until just recently, just a few years
- 10 ago, we shifted from the east and west over to
- 11 PE2E, which we all know is Patent End-to-End.
- During that time, and that's the time, remember,
- 13 we did this study just in the last couple years,
- so when we were doing this study we were
- performing the study with today's resources, the
- 16 resources that we have today. We can't go back in
- 17 time and do it with the resources that the
- 18 examiners had. And so we are really in a
- 19 different world. Even from east and west in the
- 20 PE2E. We've got that continued exponential growth
- of digital information. We've got modern
- web-based, cloud-hosted images and text search

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1 capability; 100 million-plus U.S. patent foreign
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- documents, full documents in English now, over
- 3 72,000 journals, 400,000 eBooks. And we have been
- 4 adding to east -- to PE2E all of those AI
- 5 capabilities that you're talking about. We've got
- 6 the more like this documents, the similarity
- 7 searches, and we expect that to continue as we
- 8 move forward. So keep in mind that when we're
- 9 talking about this data, these are cases that were
- 10 examined in a different world from when we were
- 11 doing the study. Okay.
- 12 All right. So if I overlap kind of the
- 13 quantity of the application, the challenged
- patents, when they were applications and being
- 15 examined, you can see there is a significant
- 16 number that is in APS world, you know, flipping
- 17 through patents. We've got most of them in the
- 18 east and west world. And this study was actually
- done in the PE2E world with the AI capabilities
- 20 that I talked about.
- 21 Also want to talk a little bit is it's
- very easy to kind of conflate the searches that

- 1 happen in the different periods of time. In the
- 2 -- I'll talk about the patent life cycle. Right?
- 3 We have a search that happens before the case --
- 4 before the application is filed. Right? And
- 5 that's going to depend on what we what an
- 6 individual has at their use as far as resources
- 7 and funding and the expectation of the
- 8 monetization of that patent. Then you've got the
- 9 search that happens during examination where we
- 10 know that, you know, examiners spend an average of
- 11 about 17 hours doing examination activities, which
- include all of the activities, a portion of which
- is searching. And then you have search that
- happens after the patent is granted, you know,
- prior to, you know, challenging a patent or
- 16 enforcing a patent and at the IPR proceedings. So
- I just wanted to take a minute to side by side
- 18 because the distinctness in the reason we're doing
- 19 the searches, the motivation of the search, and
- 20 the resources that are available during
- 21 examination versus during the enforcement period
- or the grant period of the patent, just to, you

- 1 know, make that clear that sometimes it's really
- 2 easy to conflate those searches to all being kind
- 3 of the same, but they are very different.
- 4 An examiner spends an average of about
- 5 17 hours, like I said. A portion of that time is
- 6 dedicated to searching. Whereas what I found
- 7 doing some research is that for a diligent prior
- 8 art search that's conducted by a petitioner, they
- 9 can do 8 to 10 days, plus additional time to
- 10 analyze that art. So when you are in, you know,
- defending yourself perhaps in an IPR proceeding or
- is in litigation, you have high motivation, high
- 13 resources. You already know that it's worth
- 14 money. There's monetization there.
- 15 Claim construction is different, right?
- In examination, we're using broadest reasonable
- and whereas in the IPR proceeding we've got that
- ordinary and customary meaning. Also remember,
- 19 the examination occurred and in this study we saw
- that the examination occurred approximately 12
- 21 years before the assertion, right, in the IPR and
- 22 before the final written decision was issued. At

- 1 that time, you know, by the time the final written
- 2 decision is issued, you see differences in the
- 3 search tools, right, and the ability to discover
- 4 technology, to discover the prior art. You also
- 5 see differences in the understanding of the
- 6 emerging technology. Something that was emerging
- 7 at the time of examination now is well understood
- 8 and might have different ordinary skill,
- 9 terminology, technical expertise.
- 10 And there's possible changes in the
- 11 applicable law. You know, for example, you know,
- 12 the KSR decision which reinstituted that more
- 13 flexible approach to obviousness that when an
- examiner back in '95 might have been taking more
- of the strict, you know, TSM approach to the
- 16 obviousness.
- We also have in the IPR things that just
- aren't available to examiners during prosecution.
- 19 They can go into the lab and do some testing.
- 20 They can simulate things in computers. They have
- 21 expert testimony and other evidence that's going
- 22 to be available in the IPR proceeding that is just

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1 not going to be available to an examiner during
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- 2 prosecution. You've got discovery in IPR for both
- 3 parties on both sides. You've got the oral
- 4 hearings for both parties. Those are things that
- 5 are available to an examiner during prosecution.
- 6 So let me see, I want to shift gears a
- 7 little bit now that I've of put the study into
- 8 context and talk a little bit about the
- 9 characteristics that we're seeing in the
- 10 challenges patents versus what we see in general
- 11 population of patents. Now, I want to be careful
- 12 because I'm going to share some data with you and
- I don't -- and I'm going to give you some warnings
- 14 about jumping to conclusions from the data that
- we're sharing.
- But when we look at challenged patents,
- 17 so we look at the challenged patents, what we saw
- 18 was that there was an average of 218 citations of
- 19 prior art and with 43.6 percent of the challenged
- 20 patents having greater than 100 citations.
- 21 Whereas in that same period, in calendar year '21,
- the population had an average of 55 with less than

9 percent and 8.7 percent having greater than 100

- 2 citations.
- Now, the question is, you know, when we
- 4 look at these characteristics, is it that when you
- 5 have these characteristics in prosecution, it
- 6 makes you more likely to end up in an IPR
- 7 proceeding, or is it that you're prosecuting the
- 8 application with these characteristics because you
- 9 expect it to end up in litigation because you have
- 10 an expectation with regard to monetization? I
- 11 can't answer that question. But what I can tell
- 12 you is that these are the most difficult cases for
- examiners to prosecute, right? When you have to
- 14 wade through so much information in that short
- 15 period of time, right?
- So same thing is if I look at the number
- 17 of benefit applications that are being claimed in
- 18 the challenged patent. So when I talk about
- 19 benefit applications, I'm looking at the 120
- 20 benefit claim and looking at how many parent
- 21 applications there are. You can see that in the
- 22 challenged one, in the challenged patents, there

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1 are large patent families with greater than three
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- 2 parents being claimed in that benefit claim,
- 3 whereas the general population is only six.
- Again, when it's a larger patent family, there's
- 5 more information for the examiner to have to wade
- 6 through, more claims to look at, more prior art to
- 7 look at, more prosecution history. Again, these
- 8 cases that end up at the IPR proceedings are the
- 9 most difficult ones for examiners to prosecute.
- 10 And then when we look at the number of
- 11 claims that are in the challenged patents, the
- 12 average is 23 with 49 percent of them having
- greater than 20, whereas the general population is
- 14 16.5 with 14.3 percent having greater than 20.
- And as you know, the more claims, the more
- 16 difficult.
- 17 So again, I want us -- I want to be
- 18 careful to say, you know, there is this
- 19 correlation is what is the causation? We don't
- 20 really know, and we can do some more studying on
- 21 that. Is it that because of these characteristics
- they end up in IPR or are they being prosecuted

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1 this way because there's an expectation that
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- they're going to end up in litigation or in IPR
- 3 proceedings? So we have to be careful with that
- 4 causation. At this point, I don't have the
- 5 evidence to say it's one way or the other way.
- 6 All right. So let's take a look at the
- 7 information -- or the findings, the data when we
- 8 dig into the final written decisions. So as I
- 9 said, there were 304 separate grounds of
- 10 unpatentability and 166 challenged patents. Wher
- 11 we looked at the grounds of patentability, we
- 12 divided them up into a couple buckets. We said,
- where was the grounds of patentability --
- 14 unpatentability, I'm sorry, where were the grounds
- of unpatentability that were raised in the IPR
- proceeding only based on prior art that was before
- 17 the examiner during prosecution? In other words,
- it was first cited during prosecution; the
- 19 examiner would have been aware of it. It's a very
- 20 small amount. Only 7 percent, or 22 of the 304
- 21 grounds, were based solely on art that was cited
- 22 by the applicant and was in prosecution. Right?

- 1 Ninety, you know, 93 percent of the grounds, all
- of the other grounds had at least one piece of
- 3 prior art that was newly cited or first cited
- 4 during the IPR proceeding.
- Now, the other two buckets, the 93
- 6 percent, we divided them up into there were 73
- 7 percent. So a vast majority was solely based on
- 8 art that was first cited during the AIA IPR
- 9 proceeding. That was all based on new art.
- 10 Nineteen percent was a mix. And what's
- interesting is the mix, all of those grounds were
- 12 based on obviousness, right? Some of them, a lot
- of them, the primary reference was cited during
- 14 prosecution. A small percentage, it was a new
- primary reference in that grounds. So I'm going
- 16 to go through each of these buckets and talk a
- 17 little bit about what we saw when we dug
- underneath of these individual buckets of grounds
- 19 of unpatentability.
- Okay. So this is just another chart to
- 21 kind of equate the three grounds. You've got the
- 7 percent, which was 19 final written decisions.

- 1 So again, a very small pool of data. There was 17
- 2 different -- 17 distinct patents that were
- 3 challenged, 74 percent. It was 146 final written
- 4 decisions directed to 127 challenges patents. And
- 5 then the 19 percent were as a mix of first cited
- 6 in prosecution, first cited in IPR, which equates
- 7 to 47 final written decisions with 45 patents
- 8 challenged -- distinct challenged patents. So
- 9 let's look at that first bucket.
- In that first bucket, all of the prior
- 11 art was cited during prosecution. What we found
- was that this art was in the prosecution, but it
- 13 was in the prosecution amongst a vast amount of
- prior art or information: 77 percent of these
- challenged patents had greater than 100
- references, or 13 out of 17; and 76 percent of
- 17 these the prior art relied on was cited in an IDS
- 18 disclosure from the applicant. So these were in
- 19 the prosecution, they were in front of the
- 20 examiner, but they were in front of the examiner
- in a large number of references during
- 22 prosecution.

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1
                 We also looked at this bucket, the 7
 2
       percent. Forty-seven percent of these challenged
       patents had three or more parents. So again,
 3
       we're what I would call robust families, patent
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       families. And the average pendency was eight and
       a half years for these. So they were very complex
 6
       prosecutions with a large amount of information
 8
       and a lot of -- you know, these are the most
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       difficult applications, again, for examiners to
10
       prosecute. Again, very small group, only 7
11
      percent of the challenged patents.
                 In 50 percent of the FWDs, in the final
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13
       written decisions, the Board, the PTAB, had an
14
       explicit credit or comment reference to expert
      testimony. So it wasn't just the reference
15
16
       itself, but the reference was being explained or,
17
       you know, there was being informed in light of
       some expert testimony that was helping.
18
19
       analysis of the prior art, that what was the
20
      expert testimony drawn to? It was drawn to kind
21
      of walking through the prior art and kind of
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explaining it. It was directed to rationale to

- 1 combine, which, again, we talked about earlier.
- 2 It was expectation of success and also the
- 3 ordinary skill level.
- 4 So, again, a summary of this first
- 5 bucket is only a small percentage is based on art
- 6 that was in the case when the examiner was doing
- 7 prosecution. They were very large patent families
- 8 and they had very large amount of prior art that
- 9 was present for the examiner to weigh through
- 10 there. And again, expert testimony played a big
- 11 part in understanding or being informed with
- 12 regard to what the teachings were of that prior
- 13 art.
- 14 All right. Let's look at the second
- 15 bucket and this is where all of the prior art was
- 16 first cited in the AIA IPR proceeding. What did
- we see here? So for what we did here is we wanted
- 18 to look at whether or not using today's tools, we
- 19 would be able to find this prior art. So, again,
- 20 there was a -- you know, there's that big time and
- 21 that big difference in tools available previously
- 22 to what was available at the time of the study.

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1
                 So what we did is we gave each of these
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       to one of my reviewers and said to them, we want
       you to look at the prosecution and only the
 3
       prosecution. We didn't want to bias them to look
 5
       at any of the information that was presented in
       the IPR proceeding or discussed in the final
 6
       written decision. So independently, without
 8
       looking at the FWD or the IPR proceeding, look at
 9
       the prosecution, look at the claims, and perform
10
       your own search.
11
                 So we asked, using today's tools. And
       what we found was without the benefit of the IPR
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13
       proceeding or the final written decision, in 53
14
       percent of these prior art references, we were
       able to find them, or in these independent
15
16
       searches, we were able to find the art that was
17
       cited at the IPR proceeding. So that, you know,
       we could say that now, today, using the enhanced
18
       tools that we have today, I would think we could
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20
       reasonably expect that examiners would be able to
21
       find or would find about 53 percent of these today
22
       if they had examined these under today's search
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- 1 tools. But that, of course, leaves the 47 percent
- where basically the reviewer didn't find it,
- 3 performing what was, we would consider, a
- 4 reasonable search, a reasonable field of search.
- 5 So you could reasonably conclude that 47 percent
- of these documents -- and again, I didn't notice
- 7 -- I didn't note that we only were looking -- we
- 8 performed searches, and we're only looking for the
- 9 U.S. Patent documents because we wanted to take
- 10 out of the equation whether it was art that was
- found in like a very obscure location. We wanted
- 12 to look at art that was in front, that we knew
- 13 that the examiner would have access to.
- So 53 percent of those U.S. patent
- documents we were able to find, but 47 percent we
- 16 weren't able to find when the reviewer did what we
- 17 would consider an examiner's -- a reasonable
- 18 examiner search. So what we wanted to do is kind
- of validate this finding and so we used CPC. And
- for those of you that aren't as familiar with CPC,
- 21 that -- in CPC you put symbols on the application.
- 22 So you end up having what's called a CPC picture.

- 1 And the symbols are the classification and they
- 2 are applied to the application based on the
- 3 disclosure. So USPC, we used to put those symbols
- 4 on based on the claimed invention whereas the
- 5 strength of CPC is the symbols are placed on based
- on the entire disclosure. And so the strength
- 7 here is you can overlap CPC pictures and if
- 8 there's an overlap of them, you can conclude that
- 9 there's subject matter or disclosure in common.
- 10 Right?
- 11 So what we did is we took this, we
- 12 looked at all of the U.S. patent documents that
- 13 had CPC pictures that were assigned to it. And we
- 14 took the, you know, the challenged patents. And
- so we took the prior art from the IPR that had the
- 16 CPC symbols and we took the challenged patents and
- 17 we overlapped the CPC symbols to see if there was
- 18 an overlap. So we looked for a nexus, because if
- there's a nexus between those symbols, that would
- 20 imply that there's subject matter that overlaps
- and that we would have expected the examiner to
- 22 find it, to find the art because there was subject

- 1 matter that overlapped.
- 2 So when we looked at the CPC pictures,
- 3 of the 130 U.S. Patent documents that had the
- 4 picture, had the CPC picture, only 110 -- I'm
- 5 sorry, 133; 110 had a signed CPC picture, and 68
- of the 110 had at least one symbol, one assigned
- 7 symbol that overlapped with the challenged patent.
- 8 So that left a large percentage, a significant
- 9 percentage, 42 of the 110 U.S. patent documents
- 10 that were relied on in the challenge that had no
- 11 overlapping CPC symbol with their challenged
- 12 patent. So that kind of lends you to, again, say,
- 13 well, that does seem to be then outside of an
- 14 expected reasonable search for the examiner
- 15 because you didn't even have an overlap in the CPC
- 16 picture.
- So then you have to ask yourself, well,
- 18 why? Why is that happening? What are the factors
- that are contributing to a large percentage of art
- or, you know, a significant percentage of the art
- 21 that's relied on and successful for
- 22 unpatentability to be outside a reasonable field

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19

20

application?

of the examiner search? And again, these are our

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2
       suspicions here. Again, I think we need to
 3
       continue to research this and to fine tune our
       studies, but we are looking at aspects of the
 5
       invention that were emphasized in the challenged
       patent disclosure. In other words, at the time
 6
       that the application was written, it was an
 8
       emerging technology and today it's not. Now we
 9
       understand and we may give meaning to terms and
10
       understand how things work. So when they wrote
11
       that application, how robust that application was
       written to lead the examiner to the inventive
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13
       concept, to understand the state of the art, to
14
      understand common terminology, that's how robust
       of an examination that you would get and a search
15
16
       that you would get. So we wonder, and we
17
       speculate, could it be something related to the
       application itself and the emphasis of the
18
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21 The other thing we speculate about is 22 developments in the terminology and the

terminology, the inventive concept in the

- 1 understanding of the emerging technology at the
- time, right, of prosecution versus at the time
- 3 that the search was being performed. Again,
- 4 remember I told you, they're distinct times of
- 5 search. Right? So when you were searching it to
- try to find stuff to support unpatentability,
- 7 you're looking at it and searching it from a
- 8 different perspective than you did when you were
- 9 during prosecution. And again, you can't discount
- 10 the expanded resources that are available to
- somebody who's very incentivized to find prior
- 12 art, right, in the granted -- in those post
- granted proceedings. So there's a lot going on.
- 14 You're going to search a lot further, a lot
- farther, a lot stronger with a lot more resources
- 16 behind you in that post-grant period.
- Okay. Let me move on to the last
- 18 bucket. And the last bucket is a mix. So it's
- 19 got some prior art that's going to fit into that
- 20 first bucket, some that fit into the second
- 21 bucket. And what I'm going to focus on is really
- 22 the distinct analysis for this bucket. And that

- 1 is, let's take a look at the art that was applied.
- We had 59 grounds all directed to obviousness; 42
- 3 of those, the primary reference was in
- 4 prosecution, but then was supplemented with
- 5 additional information in the IPR proceeding
- 6 versus 17 grounds where there was a brand new
- 7 primary reference, but was supplemented with stuff
- 8 that was newly cited in the IPR proceeding. I
- 9 mean, so we got the new primary reference from the
- 10 IPR proceeding and then the prosecution evidence
- 11 supplementing it.
- 12 So something, some teaching was not
- 13 before the examiner. So some of it was and some
- of it was not. Okay? So for these 59 grounds,
- there was at least some teaching that was not in
- 16 front of the examiner during prosecution.
- 17 Again, in this situation, what we did is
- we gave the two pieces of prior art, again,
- 19 without the benefit of anything in the IPR
- 20 proceeding, we just generally gave the two pieces
- of art to the reviewer and said, hey, could you
- 22 put these two references together? Could you put

- 1 these pieces together and set up an obviousness, a
- 2 prima facie case. And my reviewers in 37 of those
- 3 59, or 63 percent, thought that having -- now
- 4 having that art in front of them, that, yes, there
- 5 was a reasonable rejection that could be
- 6 supported. It still left 22 where the reviewer
- 7 still wasn't completely -- didn't come up with
- 8 that grounds, that one wasn't. And in those 22 we
- 9 did see that the expert testimony was expressly
- 10 credited there. So there was some explanation,
- 11 some further, you know, expert coming in and
- 12 explaining, informing that prior art so that we
- 13 could understand it and see how it was applicable.
- And again, those are things that are just not in
- front of the examiner at the time that they are
- 16 examining.
- 17 So in summary, we looked at FWDs that
- were issued in 2021 where there was at least one
- 19 claim that was found unpatentable. That's what we
- 20 focused on. That equated to 304 grounds of
- 21 unpatentability. We saw that the study, the
- 22 study, the studied challenged patents had a

- 1 significantly large number of prior art citations.
- 2 And again for reference, 8.7 of the general
- 3 population had greater than 100, with the average
- 4 at 55, where in this study it was 43.6 percent
- 5 having greater than 100 with an average of 218.
- 6 The most difficult applications for examiners to
- 7 examine.
- 8 Only a small percentage relied solely on
- 9 art that was provided by the applicant during
- 10 prosecution; 93 percent relied on at least one
- 11 prior art reference that was not before the
- 12 examiner. And again, during the IPR proceeding,
- 13 the judges often relied on new information, that
- is expert testimony, analysis of the disclosures
- of the structures being disclosed, some
- 16 experimental testing in some situations that were
- introduced for the first time that were not during
- 18 prosecution that helped to inform them of what the
- 19 disclosures really taught.
- 20 And so again, I think there are some,
- 21 you know, big takeaways here. And the key
- takeaways are that, you know, challenged patents

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with findings of unpatentability in IPR FWDs have
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- 2 a more complex prosecution history and higher
- 3 numbers of prior art citations than the general
- 4 population.
- 5 The second takeaway is that
- 6 overwhelmingly 93 percent of these successful
- 7 challenges or the successful grounds of
- 8 unpatentability relied on at least one piece of
- 9 prior art that was first cited in the IPR, that is
- 10 prior art that was not before the examiner.
- 11 Forty-seven percent of U.S. patent documents cited
- 12 as prior art for the first time were outside of
- 13 what the examiner -- what we would consider an
- examiner's reasonable field of search. And that
- there was a significant or there was reliance on
- 16 additional information to help inform what was
- being taught or disclosed in the prior art that,
- again, was not in front of the examiner during
- 19 prosecution.
- 20 So at this point, I do want to thank the
- 21 PTAB for -- I mean, sorry, thank the PTAB, of
- 22 course, for their collaboration in this study, but

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1 also thank PPAC for a lot of the very deep
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- 2 discussions that we had on this data and these
- 3 findings that allowed to inform our developing
- 4 some potential next steps.
- 5 So what I'm going to do is I'm going to
- 6 turn it over to the Deputy Commissioner, Charles
- 7 Kim to walk through what we're looking at for
- 8 potential next steps as a result of this study.
- 9 So I'll hand it over to Charles Great.
- 10 MR. KIM: Great. Thank you so much,
- 11 Sandie. So I'd like to start by thanking Sandie
- and our team in the Office of Patent Quality
- 13 Assurance, including Kathleen Bragdon back there,
- 14 Vei-Chung, and the rest of the team for their
- 15 tremendous efforts on this study. As you can see
- from the overview that Sandie just provided, a lot
- of thought and effort went into conducting this
- 18 study. I also want to echo Sandie's comments and
- say thank you to our colleagues at the PTAB for
- their support and collaboration in the study.
- I also want to echo the comments that
- 22 were made by Deputy Director Brent earlier and

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1 thank PPAC. Thank all of you for your commitment
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- and your efforts in serving on PPAC. Thank you
- 3 for all the tremendous efforts in the Annual
- 4 Report that you discussed. And thank you for your
- 5 valuable insight and feedback on this study. And
- 6 that valuable feedback helped to inform some of
- 7 our potential next steps, which I'll discuss as
- 8 part of this slide.
- 9 So the first potential next step is
- 10 based on the importance of understanding the three
- 11 different time periods that Sandie discussed with
- 12 regards to when a prior art search is done.
- 13 Right? So Sandie mentioned that first time period
- 14 where an applicant typically performs a prior art
- search before an application is filed. Right?
- 16 And that could look different depending on the
- 17 applicant. Right? Depending on whether you're an
- independent inventor, whether you're a small
- 19 business or a large company.
- The second time period that Sandie
- 21 mentioned is when a prior art search is conducted
- 22 here at the USPTO by our examiners. And then the

- 1 third time period where a prior art search is done
- is done by third parties, right, when they're
- 3 involved in a patent infringement proceeding or an
- 4 IPR proceeding. And those three time periods look
- 5 very different in terms of the amount of resources
- 6 that are spent as well as the people that are
- 7 performing those searches.
- 8 So this first potential next step gets
- 9 at that third time period. As Sandie mentioned, a
- 10 majority -- an overwhelming majority of the prior
- 11 art references that were relied upon in these
- 12 final decisions were prior art references that
- were not provided by the applicant in that first
- time period, and they were not found by the
- 15 examiner in that second time period. But these
- 16 were references that were found in that third time
- 17 period by third parties. And this first
- 18 recommendation is to take a closer look into that
- third time period to see the type of resources
- 20 that are spent in the prior art searches.
- 21 Search tools are being used by third
- 22 parties to find these references, whether there's,

- 1 you know, certain AI tools that perhaps PTO should
- 2 be looking into, as well as databases, right,
- 3 where non-patent literature and other documents
- 4 can be found. So the idea is to conduct a study
- 5 in that third time period to get a better
- 6 understanding of how these prior art searches are
- 7 being undertaken and to see if there's any
- 8 findings from that study to help inform steps that
- 9 can be taken in both the second time period here
- 10 at the PTO in terms of search tools and databases
- 11 that our examiners use, as well as that first time
- 12 period where applicants conduct that prior art
- 13 search.
- The second potential next step relates
- to developing practice tips for both patent
- 16 applicants and patent owners based on the findings
- of the study. And I'll discuss -- we actually
- developed the first of our practice tips and I'll
- 19 discuss that further in a little bit.
- The third potential next step relates to
- 21 some of the efforts that Charles Duan mentioned
- 22 with regards to our search tools. So it's

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1 extremely important that we continue to invest in
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- 2 our search tools to ensure that our examiners
- 3 continue to have world-class search tools,
- 4 including continuing to build on our AI prior art
- 5 search capability capabilities and to continue to
- do the great work that Rick and our OCIO team have
- 7 been working on over the years.
- 8 The fourth potential next step relates
- 9 to conducting a study directed at how experts are
- 10 being used in IPRs to inform whether there may be
- 11 a need to develop additional guidance with regards
- to use of experts in IPR proceedings.
- 13 And of course, the last potential next
- 14 step, and I think it's fair to say that this will
- be a next step, it will not be a potential next
- step, is to continue to work and collaborate with
- 17 PPAC to explore how we can best move forward with
- some of the potential next steps that I identified
- 19 above, as well as any additional areas that we
- 20 should be looking into.
- 21 So I guess -- I'm not sure if we have
- the Word document we can post that. Okay. So

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1 this is the Appendix and this is going to be --
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- 2 all the slide deck is going to be posted on our
- 3 website. So if you're interested in doing a
- 4 deeper dive into the findings from the study, all
- of that information is going to be available on
- 6 our website.
- 7 So this is the practice tips document
- 8 that I mentioned. I believe it was potential next
- 9 step number 2, I believe. So, as you can see
- 10 here, we have some practice tips for both patent
- 11 applicants and patent owners. Right? So, for
- 12 example, for patent applicants, we remind
- 13 applicants that they are in the best position,
- 14 right, to determine what the field of invention as
- 15 well as the most relevant prior art references, so
- they're in the best position to identify those
- 17 potential prior art references.
- 18 And when those references are
- identified, it's important to have discussions
- 20 with examiners, right, to let examiners know
- 21 instead of providing potentially hundreds of prior
- 22 art references where it may be very difficult for

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1 the examiner to sift through those references to
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- 2 identify the most relevant ones. It's extremely
- 3 important to have discussions with examiners if
- 4 you're aware of references that may be more
- 5 relevant than others. And taking those types of
- 6 steps can help to insulate the patent that issues
- 7 from that application from a challenge at the PTO.
- I think there were some discussions
- 9 earlier about 325(d). Right. That's the statute
- 10 that provides for discretionary denials. And
- 11 taking some of the steps that I mentioned earlier
- 12 can help insulate your patent from challenge at
- 13 the USPTO.
- 14 For patent owners, we have some other
- tips with regards to when a patent is enforced.
- 16 We suggest conducting prior art searches and due
- 17 diligence. We also remind patent owners about
- some of the options that are available. Once the
- 19 patent issues, there are options to pursue further
- 20 prosecution through reissues and reexams. And
- 21 those can be done both before, during, and after
- 22 an AIA trial.

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1 So those are some of the tips that we
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- 2 have in this practice tips document. We are
- 3 planning to publish this document as well on our
- 4 webpage and we'll continue to look into the study
- 5 to see if there's any additional tips that might
- 6 be helpful. We look forward to PPAC's input on if
- 7 there's any additional information that you all
- 8 think would be helpful for practice tips.
- 9 So I guess with that, I'll pause to see
- if there's any questions.
- MS. DARDEN: Henry?
- MR. HADAD: Not so much a question, but
- 13 a thank you to Sandie and to you, Charles.
- 14 Sandie, I realize that this is a limited pool of
- data, but it's helpful and it's directional and I
- think it can be the basis of the additional
- 17 studies that Charles outlined in view of the
- 18 conclusions you reached.
- And we at PPAC look forward to working
- 20 with you all in the coming year to actionalize
- 21 these findings to some degree, to follow up on the
- 22 studies and see what we can do to continue making

- 1 the patent right as robust and reliable as
- 2 possible. So thank you for your work.
- 3 MS. DARDEN: Marvin?
- 4 MR. SLEPIAN: Again, I want to commend
- 5 everybody on that -- on this hard work. And I
- 6 think this is another area where even an AI
- 7 overlay could be very useful to kind of peel apart
- 8 are there just associations or are their causal or
- 9 other connections? And I think adding that into
- 10 the mix as a sixth or seventh item down there,
- 11 we'll call that under the continued work with
- 12 PPAC, will be something to do in the future.
- MS. DARDEN: Any other questions in the
- 14 room, online? Okay, great.
- Well, I want to thank Sandie and Charles
- 16 for that informative presentation. I also want to
- 17 thank Vashali and her team for allowing this study
- 18 to take place. I mean, there's some very
- informative information there.
- 20 And I also want to thank the outgoing
- 21 members of PPAC who for years have fought to have
- this study conducted and results released. So

- 1 Suzanne, Heidi, Charles, thank you for your
- 2 leadership and at least getting us to this point.
- 3 And we look further to working with you all to
- 4 continue this study, make the results public,
- 5 educate stakeholders, so we can start to see some,
- 6 hopefully, some positive impact at the PTAB for
- 7 patent owners.
- Now, this concludes our public meeting
- 9 and I want to say thank you to the members here of
- 10 PPAC. PPAC has been around for 25 years, so we
- 11 have 25 years' worth of alumni to thank for
- 12 getting us where we are today. We collectively,
- this current PPAC, would like to thank USPTO for
- 14 your continued work and support of making the
- 15 patent right in the United States as robust and
- 16 reliable as possible. And we thank you for
- 17 collaborating with us.
- 18 We feel like we are the voice of the
- 19 public. We bring that voice to you. You listen
- 20 and collaboratively we make things happen as you
- 21 have seen from what was reported today in the 2024
- 22 PPAC report. So thank you all. (Applause)

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3	I, Thomas Watson, notary public in and
4	for the Commonwealth of Virginia, do hereby certify
5	that the forgoing PROCEEDING was duly recorded and
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8	under penalty of perjury; that said transcript is a
9	true record of the testimony given by witnesses;
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