

Ensuring reliable and durable patents

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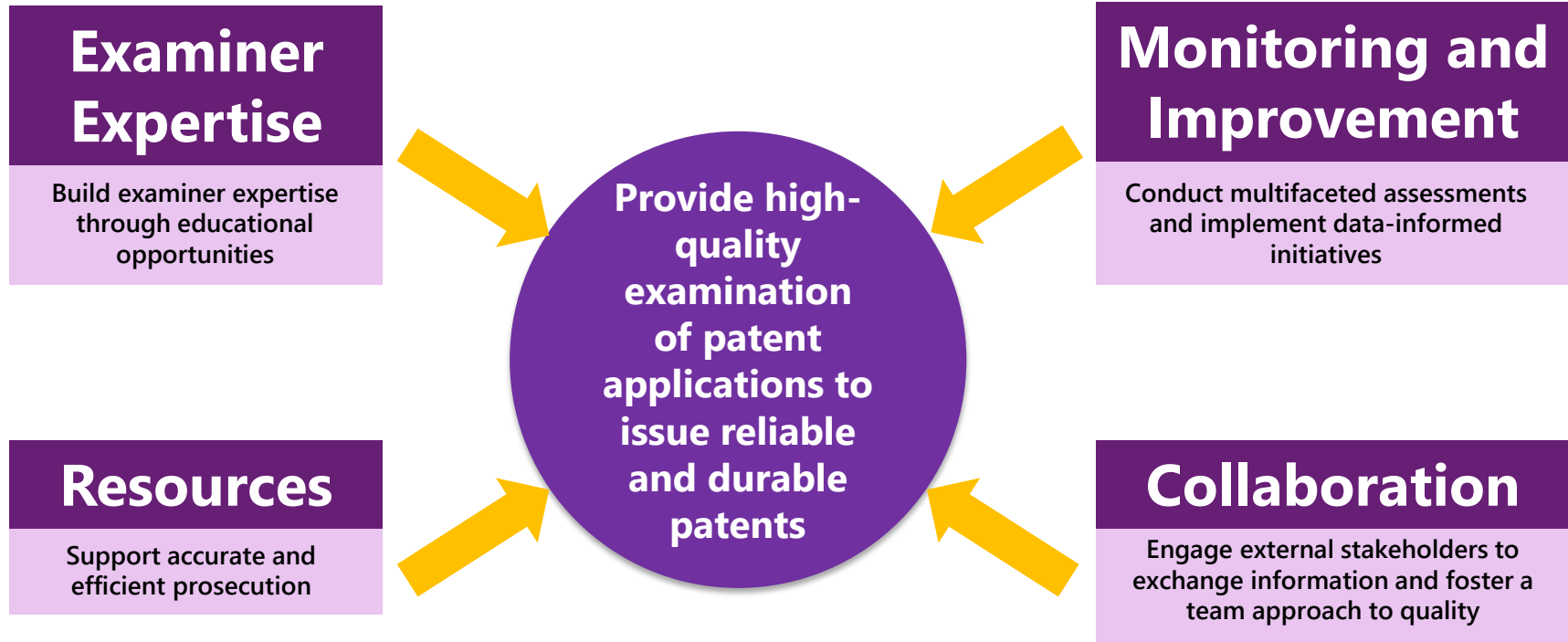
Deputy Commissioner for Patents

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UNITED STATES
PATENT AND TRADEMARK OFFICE ®

Four facets of ensuring reliable, durable patents



EXAMINER EXPERTISE

Newly hired to expert

New examiner training: Initial residency in Patent Training Academy (PTA)

- Small groups (labs) of newly hired examiners are organized by technology
- Moving toward an **8 week program**
 - Purpose: Integrate new examiners into their art units earlier
 - **320 hours per examiner**
 - Approximately 40 hours for onboarding and orientation
 - Approximately 280 hours of formal training, practicing prosecution techniques and independent and group work/discussions
 - **120 courses** providing patentability statutes and examiner tools training (accessing applications, searching, and Office action writing)

New examiner training: Residency within the Technology Center (TC)

- Hands-on training
 - Start examining applications under the mentorship and guidance of their SPE
 - Working in the assigned art unit; examining specific technology and building relationships
 - Up to 37 additional hours of training on topics specific to the TC (e.g., sequence rule compliance, searching exercises, blockchain technology)
- Formal training provided by PTA
 - **32 courses; 58 hours**
 - Covering topics that occur later in prosecution such as: managing amendments, finality practice, declaration practice, and appeals practice

Progressing to Primary Examiner

- Required Legal training
 - Patent Law and Evidence Coursework: 40-hour course covering authoritative court decisions on statutory issues
- Certifications
 - Negotiation authority
 - Legal competency
- Signatory authority program
 - Approximately **18 months** to complete
 - Intensive review of at least **34 Office actions**
 - Partial Signatory Authority
 - Full Signatory Authority



Primary Examiner

- Delegated authority to determine patentability of applications
- Subject matter expert
- Coach/mentor to assistant (i.e., non-primary) examiners

Continuing education

- Corps-wide examination training based on new court decisions, new guidance, and new statutes/rules
- TC-implemented training initiatives based on TC's quality impact plans
- Technical Training on Demand (TTOD): 600+ courses covering all utility TCs
- Non-duty hour technical and legal trainings at credited colleges and universities

Examiner resources within the TCs

- **Supervisory Patent Examiners (SPEs)**
 - “Front line” of quality
 - Coaching/mentoring
 - Conducting quality enhancement meetings and art unit level trainings
 - Shifting administrative duties to focus on review of examiner’s work
- **Subject Matter Experts (SMEs)**
 - Experienced examiners
 - Quality Assurance Specialists
 - Points-of-Contact for special issues (e.g., appeals specialists)

Examiner resources outside of the TC

- **Office of Patent Legal Administration (OPLA)**
 - Develops new rules, practices, and procedures
 - Trains examiners on legal issues
- **Scientific & Technical Information Center (STIC)**
 - Assists examining corps on search and translation
- **Office of Patent Quality Assurance (OPQA)**
 - Assessment and analysis of the quality of patent examination at the USPTO
 - Direct support to the examining corps providing coaching & mentoring, attending conferences, and conducting quality reviews

Modern examiner tools

- State of the art search tools to increase likelihood of identifying the best prior art early in prosecution, including AI based tools
 - Similarity Search tool
 - More Like This Document tool
 - Reverse Image Search pilot
- Modernization of examination processes and robust IT infrastructure



MONITORING AND IMPROVING

**Work product reviews, process
measures and stakeholder perceptions**

Office of Patent Quality Assurance (OPQA)

OPQA's activities are critical to USPTO's mission:

- Independent and unbiased **assessment** of TC work product to support issuance of highly reliable, durable patents and informed, evidence-based decisions across the Agency
 - OPQA is staffed with subject matter experts skilled at statistics, legal analysis, technology and reviewing
- Monitors and analyzes multi-source data to identify **leading indicators** of compliance issues and proactively engage stakeholders, leveraging OPQA's strong relationships across Patents, to quickly react to indicators
- Collaborates with the TCs to ensure impeccable work products which **improve efficiencies and effectiveness** by minimizing rework and supporting compact prosecution
- USPTO relies on OPQA to generate objective patent quality data of high integrity that is **statutorily mandated** (35 U.S.C. § 13) to be supplied annually to Congress
- **Builds the public's trust in IP rights** granted at USPTO through enhanced transparency of published patent quality metrics and other quality data

OPQA time historically

as a % of total reviewer firepower over the course of a fiscal year

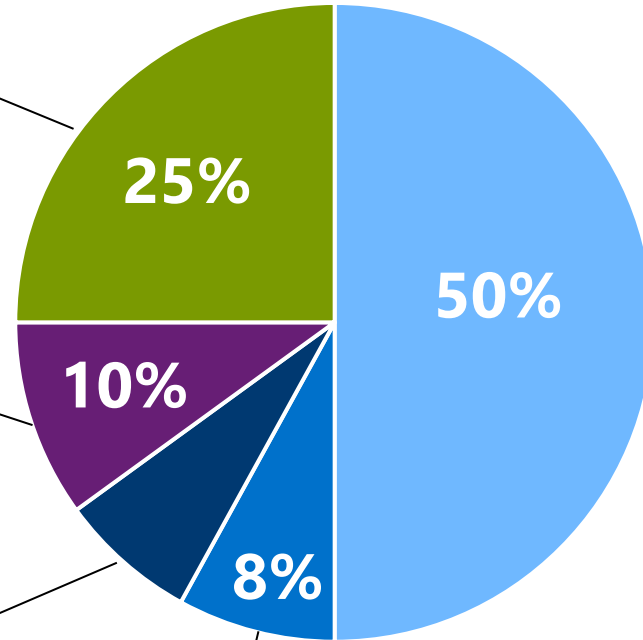
TC Support

e.g., *ad hoc* reviews;
TC quality action plans;
specialized training;
pre/appeal conferences;
signatory authority
reviews

Patent Priorities

e.g., studies to investigate
stakeholder concerns; assist
with Patents quality impact
plans; assessment of pilot
programs

Strategically Focused Reviews



12,000 Random Reviews

In support of our
published patent
quality metrics

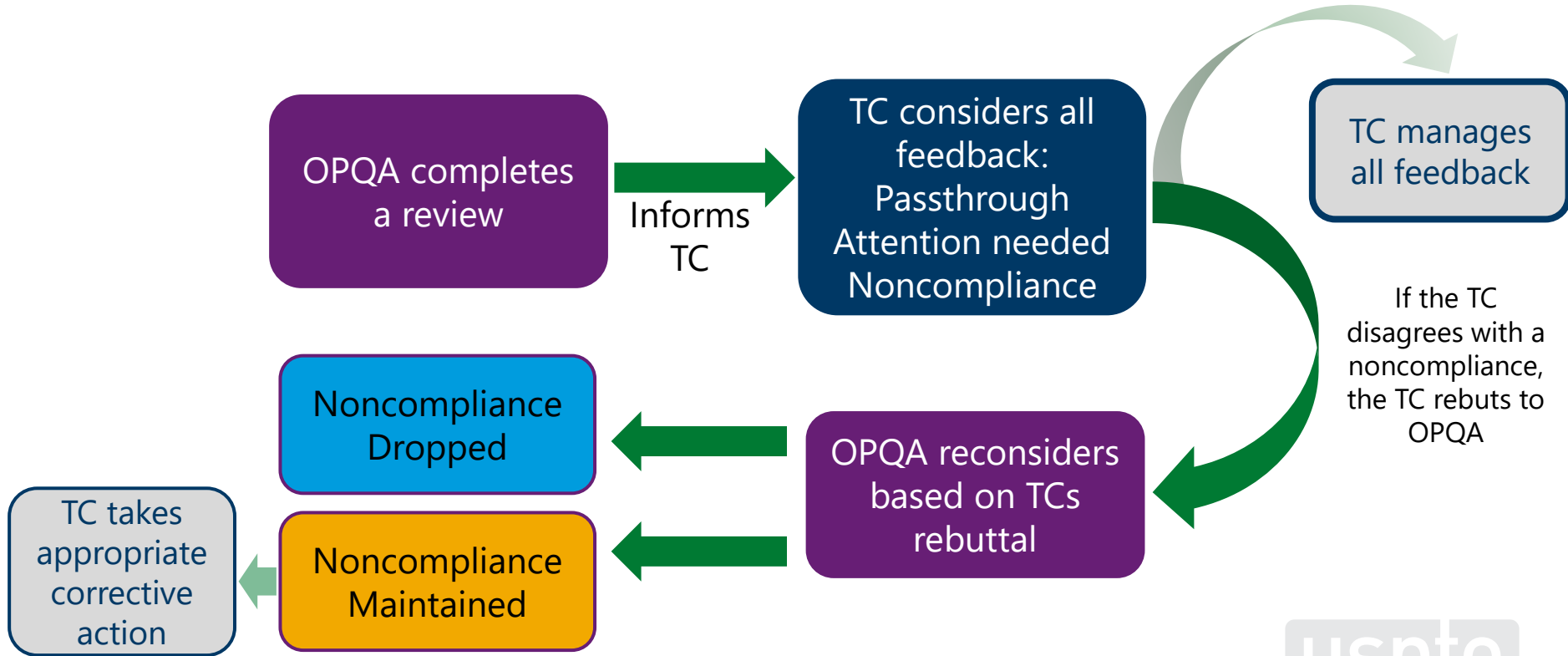
PCT Reviews



How and why OPQA applies a statutory compliance standard

- When rejecting a claim, to meet the Office's burden of establishing unpatentability, the patentability determination must be correct and must, at a minimum,
- identify the claim and relevant statute, and
- set forth sufficient evidence to put a person skilled in the art on notice as to why the claim is considered unpatentable so as to provide applicant with a fair opportunity to respond.
- For an allowed claim, the Office action must not omit a statutorily compliant rejection.
- The correctness of a patentability determination is considered through the lens of whether the patentability determination(s) were **reasonable** and not based on what the reviewer would have done in the first instance.
- Statutory compliance supports reliability and durability of issued patents.

What happens after OPQA completes a random review (compliance review)?



Effective sampling in support meaningful statutory compliance metrics

- Start with a *minimally acceptable* Corps-wide sample size based on total Office actions mailed
 - Aim to achieve a 95% confidence interval with a margin of error that is +/- 0.5%
 - Achievable with a **sample size of 5,900** reviews corps-wide
- Adjust for TC precision at the same 95% confidence interval with a margin of error that is +/- 1.5%
 - Achievable with a sample size of about 656 reviews/TC for the smallest TC
 - Allocate the sampling by TC and expand to ensure precision in each TC based on their particular sizes
 - To ensure representativeness, we allocate sampling across the TCs based on Office actions mailed, i.e., if a TC generates 8% of the total mailed Office actions, that TC is allocated 8% of the total sample
 - Knowing the smallest sample size at the TC level, extrapolate that up to a Corps-wide sample
 - 656 reviews are needed for the TC that should get 8% of total sample
 - $656/8\% = \text{sample size of } 8,200$ reviews for the Corps
- Adjust the sample size again, as needed, to ensure adequate opportunity to sample for particular topics of interest
 - For example, since about 7% of Office actions will contain a 101 rejection (historic data for 35 U.S.C. 101, the least frequent rejection), a sample of 8,200 will yield only 574 such cases for review. To approach precision of even +/- 2% for this topic, the total **sample size was expanded to 12,000**

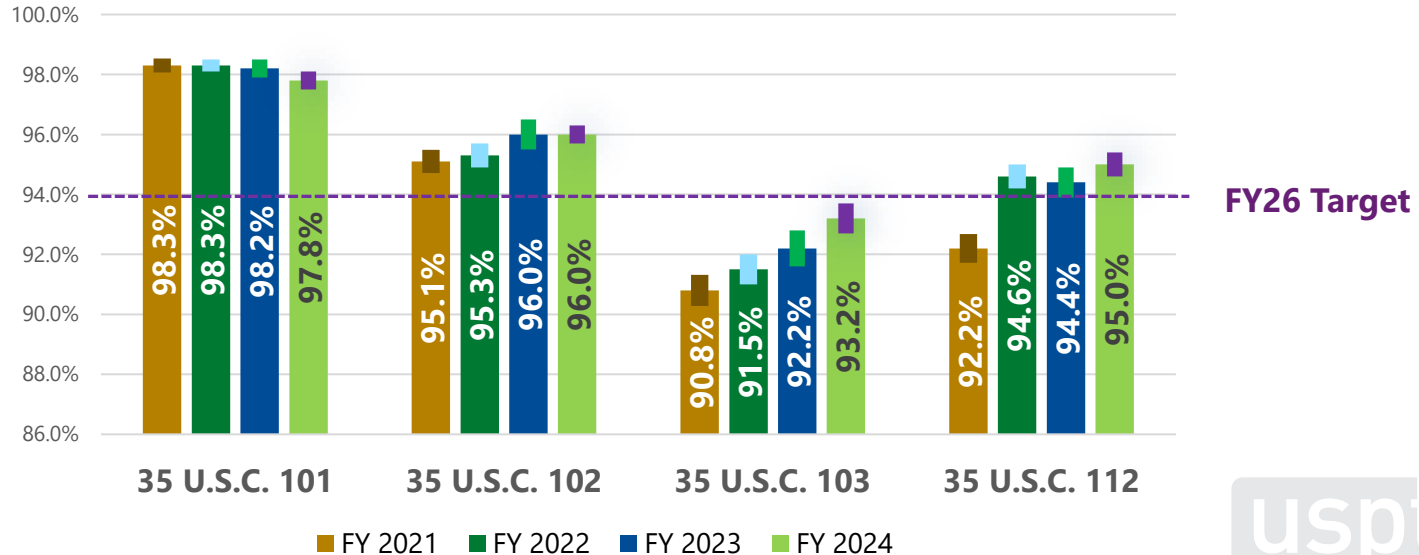
Efficiently producing data of strong confidence

	Sampling Error for TC Estimates				
	102	103	112	101	Overall
1600	1.0%	1.4%	1.7%	0.6%	2.2%
1700	1.0%	1.6%	1.5%	0.3%	2.1%
2100	1.1%	1.7%	1.1%	1.6%	2.5%
2400	1.1%	1.7%	0.9%	0.7%	2.1%
2600	1.0%	1.4%	0.9%	0.8%	1.9%
2800	0.9%	1.0%	0.7%	0.4%	1.4%
2900	1.5%	1.5%	2.3%	0.0%	2.8%
3600	0.8%	0.9%	0.9%	1.0%	1.6%
3700	1.1%	1.1%	1.1%	0.6%	1.7%
Corps	0.3%	0.5%	0.4%	0.3%	0.6%

- OPQA's random reviewing scheme achieves strong confidence intervals to assess at the Corps and TC levels
- Moreover, it produces a minable data set of approximately 1,000,000 *individual* data points available to assess patent examination quality from every foreseeable angle

Statutory compliance data

Measure	FY24	FY24 Target	FY26 Target
Statutory compliance 101	97.8%	> 94%	> 94%
Statutory compliance 102	96.0%	> 94%	> 94%
Statutory compliance 103	93.2%	> 92%	> 94%
Statutory compliance 112	95.0%	> 94%	> 94%



How does OPQA ensure its own quality?

- TC feedback
- Consistency reviews and discussions internal to OPQA
 - within technologies and disciplines
 - across OPQA as a whole
 - efficient, effective quality control and quality assurance activities are based on data analysis
- OPQA Quality Leads, by TC, meet regularly with their TC reps for discussions/feedback
 - on the handling of specific statutes or subject matter
 - about issues raised in particular cases
- Discussions with the Office of Patent Legal Administration (OPLA) in combination with the TCs, as needed

Ensuring examiner quality with regular, frontline supervisor interactions

- Reviews of work product by supervisors and/or TC quality assurance specialists with detailed feedback provided one-on-one
 - Assistant examiners (i.e., non-primary examiners) have all Office actions reviewed and signed by a supervisor or a primary examiner authorized to sign others' work
 - Primary examiners have regular discussions with supervisor and regular performance rating reviews
- Discussions of issues in appeal and pre-appeal conferences
- Considerations of decisions from the Patents Trial and Appeals Board (PTAB)

Process measures help monitor quality

- Leverage data analytics to identify areas of risk, tracking efficiencies and consistency in the examination process
- Monitor a variety of data sources for consistency, including transactional data, to identify trends and examiner behaviors indicative of either best practices or potential quality concerns
- Strategically focus reviews on areas of highest risk and inconsistencies

Perception surveys ensure appropriate alignment of quality metrics

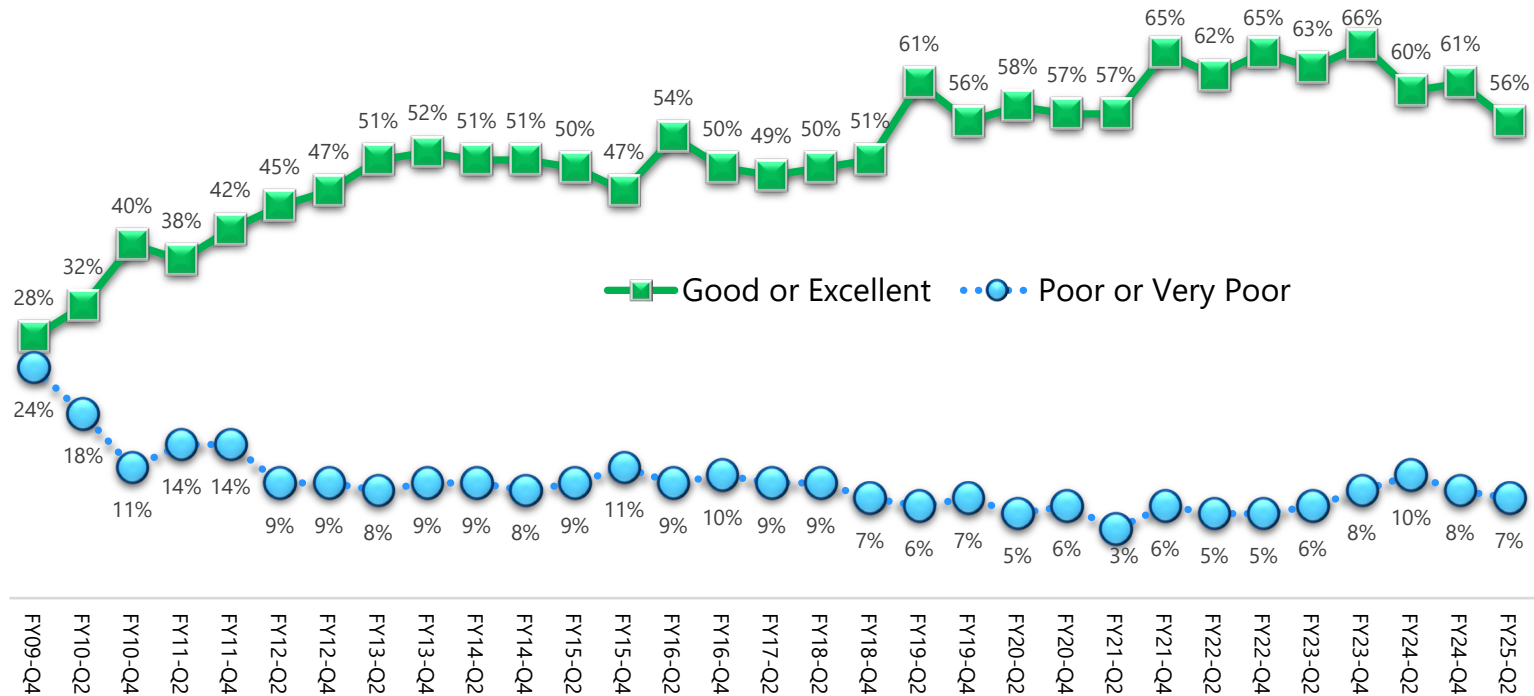
- Conduct both internal and external stakeholder perception surveys semi-annually
 - Vital leading quality indicator
 - Validation of other quality related metrics
- External quality survey is directed to **perceptions on correctness, clarity and consistency of examiner work product**
- Internal quality survey is administered to patent examiners and focuses on internal and external factors impacting examiners' **ability to provide high-quality patent examination** such as tools, training and coaching/mentoring

External survey overview

- Customers from “top filing” firms/entities
 - On average, respondents have received around 15-20 Office actions in the 3 months prior to being surveyed
- Administered semi-annually since 2006
- Focuses on quality
- Sample size is approximately 3,150 customers
 - A new sample frame was acquired in December 2023 to update the list of “top filing” firms/entities. FY25-Q1 was the third launch using the frame.
 - A stratified random selection of customers is asked to participate in two successive waves of data collection to create the panel design.
- Enumeration and analysis conducted by Westat
 - 94% completed the recent survey via the web



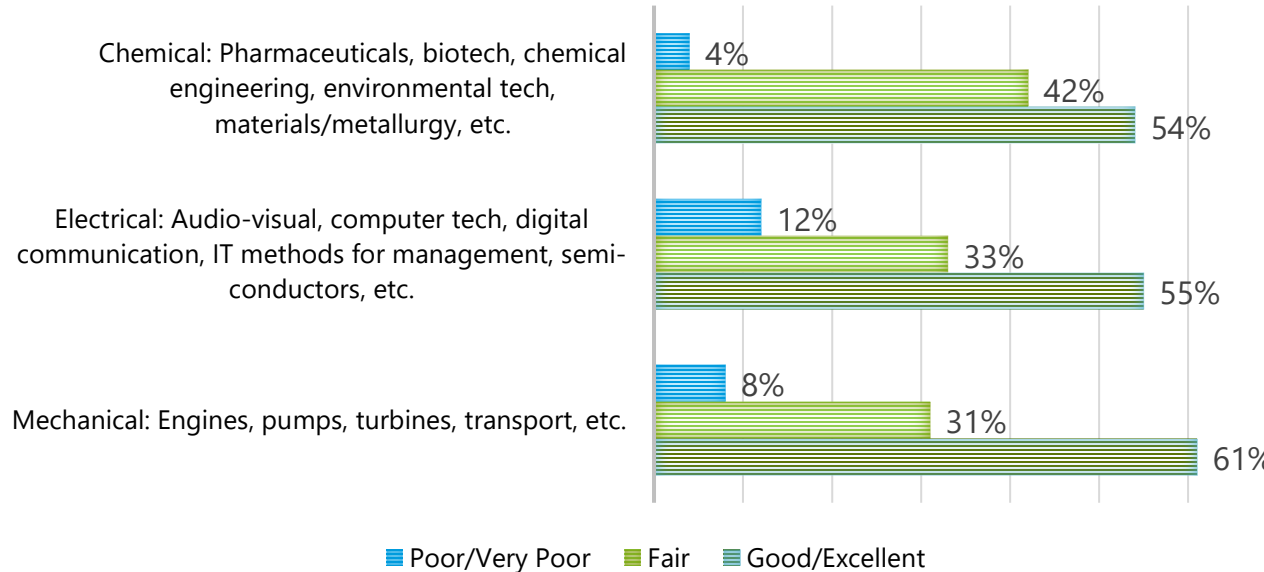
In the past 3 months, how would you rate overall examination quality?



Source: Semi-annual External Quality Survey FY25Q2

In the past 3 months, how would you rate overall examination quality? (by technology)

By Technology: FY25Q2



Source: Semi-annual External Quality Survey FY25Q2

Improving work product

Leverage assessment data to gauge patent quality, target areas for improvement and achieve impeccable work products.

- Identify quality trends, along with the underlying cause using root cause analysis, to improve compliance, reduce rework and promote efficiency
- Implement tailored solutions to address root cause quality issues
- Identify best practices that will achieve more compliant and durable patents and improve efficiencies

Patents Quality Impact Plans

- TCs regularly evaluate data at every level (e.g., Corps, Discipline, Technology Center, Art Unit) and develop targeted and tailored improvement plans
- TCs work in collaboration with the Office of Patent Training, Office of Patent Quality Assurance, Subject Matter Experts and divisions in the Office of Patent Examination Policy
- Multifaceted approach to impact – training is not always the answer – also focus on improving processes, increasing motivation, and leveraging/improving resources



Recent studies direct examination improvements

- Post Grant Outcomes program facilitated examiner awareness of post grant proceedings related to applications they are currently examining
 - Added a link to any post grant proceeding in the examiner patent application viewing tool (PE2E)
- *AIA Inter Partes Review* (IPR) were found to typically be based on patents with more complex prosecution histories and/or with a higher number of prior art citations
 - Developed practice tips* related to IPRs for patent applicants and owners
- Large Patent Family applications, which present challenges for examiners, can benefit from new mechanisms to gain efficiencies in related claim analysis
 - Prototyped claim comparison assistance

Driving best practices through recognition

- During their normal course of reviewing mailed Office actions, OPQA identifies high-quality work with an Accolade letter for:
 - **Consistent use of best practices** throughout a single, reviewed Office action and/or
 - **Specific work that goes above and beyond** typical examination practices in a single, reviewed Office action
- Accolade letters from the Director of OPQA specifically highlight the examiner's work in the reviewed Office action by including:
 - Specific identification of the best practices that were exemplified in the Office action and/or
 - Reference to the reviewer's specific accolade comment(s) on a particular rejection or section of the reviewed Office action
- Accolade letters are delivered to frontline supervisors regularly throughout the fiscal year for presentation to the examiner

Accolade letters in FY24

TC	Compliant Reviews	With an Accolade	Percent of Compliant Reviews with an Accolade
1600	688	172	25%
1700	1031	226	22%
2100	754	173	23%
2400	1055	348	33%
2600	1068	254	24%
2800	1629	346	20%
2900	433	59	14%
3600	1446	320	22%
3700	1756	419	24%
TOTAL	9860	2317	23%

COLLABORATION

Working with our stakeholders

Partnering with external stakeholders

- Application readiness
 - Working with applicants to provide practice tips for filing strong applications that facilitate high-quality prosecution
 - High-quality applications support examiners with search and overall prosecution quality
 - Disclosing relevant information helps strengthen prosecution
- The USPTO offers a variety of patent training opportunities for the public including patent examination training, patent quality chats and inventor chats
 - e.g., Stakeholder Application Readiness Training (StART), Stakeholder Training on Examination Practice and Procedure (STEPP), Continuing Legal Education (CLE), Patent Pro Bono program, Inventor Assistance Center, Pre-application assessment program, legal information and guidance documents
- Stakeholders support USPTO through technology training opportunities

RESOURCES

**Providing up-to-date, easy-to-use
online and in-person resources**

USPTO website as a resource

Resource	Link
Public Learning Center	www.uspto.gov/patents/training
Examination Guidance and Training Materials	www.uspto.gov/PatentExaminationGuidance
Quality Metrics	www.uspto.gov/patents/quality-metrics
Patent Examiner Technical Training Program	www.uspto.gov/PatentExaminerTechTraining
Patent Legal Administration	www.uspto.gov/patents/laws/patent-legal-administration



USPTO is across the country as a resource

- Headquarters in Alexandria, VA (Northeast)
- Regional outreach offices
 - **Detroit** (Midwest Elijah J. McCoy), **Denver** (Rocky Mountain), **Dallas** (Southwest), **San Jose** (Western)
 - *coming soon* in the Southeast
- Community outreach office
 - *new* **Durham**, New Hampshire (Northern New England)
- Patent and Trademark Resource Centers (PTRCs)
 - A nation-wide network of academic, public, and state libraries that provide various trademark and patent assistance to the public

www.uspto.gov/about-us/uspto-office-locations

www.uspto.gov/learning-and-resources/patent-trademark-resource-centers

