

117TH CONGRESS  
2D SESSION

# S. 4704

To require the Comptroller General of the United States to submit a report regarding ways to improve the patent examination process at the United States Patent and Trademark Office, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

AUGUST 2, 2022

Mr. TILLIS (for himself and Mr. LEAHY) introduced the following bill; which was read twice and referred to the Committee on the Judiciary

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## A BILL

To require the Comptroller General of the United States to submit a report regarding ways to improve the patent examination process at the United States Patent and Trademark Office, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Patent Examination  
5       and Quality Improvement Act of 2022”.

6       **SEC. 2. DEFINITIONS.**

7       In this Act:

1           (1) **ADVANCED DATA SCIENCE ANALYTICS.**—  
2           The term “advanced data science analytics” means  
3           techniques, such as artificial intelligence, machine  
4           learning, and other methods of analyzing large data  
5           sets, that may be used to make or implement policy  
6           recommendations.

7           (2) **DIRECTOR.**—The term “Director” means  
8           the Under Secretary of Commerce for Intellectual  
9           Property and Director of the Office.

10          (3) **OFFICE.**—The term “Office” means the  
11          United States Patent and Trademark Office.

12 **SEC. 3. FINDINGS; SENSE OF CONGRESS.**

13          (a) **FINDINGS.**—Congress finds the following:

14               (1) Patents and other forms of intellectual  
15               property are important engines of innovation, inven-  
16               tion, and economic growth.

17               (2) All people of the United States depend on  
18               clear patent rights to—

19                       (A) secure protection of their own innova-  
20                       tions; and

21                       (B) enable them to avoid appropriating in-  
22                       novations that others have patented.

23               (3) Recent studies—

24                       (A) indicate that many patents that the  
25                       Office has issued do not satisfy the patent-

1 ability requirements of title 35, United States  
2 Code; and

3 (B) have shown that—

4 (i) the Office has limited resources;  
5 and

6 (ii) the resource limitation described  
7 in clause (i) negatively affects the ability of  
8 the Office to conduct thorough and com-  
9 plete patent examinations.

10 (b) SENSE OF CONGRESS.—It is the sense of Con-  
11 gress that Congress must do more to enable the Office  
12 to improve—

13 (1) the quality of patents issued by the Office;  
14 and

15 (2) the patent examination process at the Of-  
16 fice.

17 **SEC. 4. GAO REPORT ON PATENT EXAMINATION IMPROVE-**  
18 **MENT.**

19 Not later than 1 year after the date of enactment  
20 of this Act, the Comptroller General of the United States  
21 shall submit to the Committee on the Judiciary of the Sen-  
22 ate and the Committee on the Judiciary of the House of  
23 Representatives a report—

1           (1) regarding how to improve the patent exam-  
2           ination process at, and the overall quality of patents  
3           issued by, the Office;

4           (2) that shall—

5                 (A) place a particular emphasis on improv-  
6                 ing the process described in paragraph (1)—

7                     (i) with respect to the application of  
8                     the conditions and requirements of sections  
9                     101, 102, 103, and 112 of title 35, United  
10                    States Code, including avoiding repetitive  
11                    and unduly multiplied claims; and

12                   (ii) by more clearly defining what con-  
13                   stitutes a clear and thorough search by a  
14                   patent examiner throughout the entire pat-  
15                   ent examination process at the Office;

16                 (B) in part, rigorously evaluate previous  
17                 and current (as of the date on which the report  
18                 is submitted) initiatives and pilot programs of  
19                 the Office relating to the quality of patents  
20                 issued by the Office, which shall include anal-  
21                 ysis of—

22                     (i) the reasons those pilot programs—

23                         (I) were successful;

24                         (II) would have been successful  
25                     with modifications; or

- 1 (III) had irremediable flaws; and
- 2 (ii) ways to use those pilot programs
- 3 to beneficial effect in the future;
- 4 (C) evaluate whether the Office needs to—
- 5 (i) establish—
- 6 (I) clear standards regarding
- 7 what constitutes patent quality; and
- 8 (II) patent quality metrics that—
- 9 (aa) the Office can support;
- 10 and
- 11 (bb) patent applicants and
- 12 the public can verify;
- 13 (ii) provide additional time for patent
- 14 examiners to examine patents;
- 15 (iii) align non-compliance and clear
- 16 errors with respect to the review of the
- 17 work product of patent examiners;
- 18 (iv) record examiner interviews and
- 19 place those interviews in the record, either
- 20 through audio files or automated tran-
- 21 scriptions;
- 22 (v) assign patent applications to ex-
- 23 aminers who are most qualified to examine
- 24 those applications based on—

1 (I) the technical background of  
2 the examiners; and

3 (II) the number of applications  
4 that a particular examiner has already  
5 reviewed in a similar technical area;  
6 and

7 (vi) establish a group that—

8 (I) analyzes real-world cir-  
9 cumstances, such as practices at other  
10 agencies and in the broader scientific  
11 community; and

12 (II) uses information collected  
13 under subclause (I) to perform tar-  
14 geted reviews of certain patent appli-  
15 cations, such as patent applications  
16 from applicants who have had sci-  
17 entific papers retracted; and

18 (D) study evidence of fraud in the patent  
19 application process, which shall include sugges-  
20 tions to address any such fraud, such as a task  
21 force that is similar to the task force of the Of-  
22 fice investigating suspicious activities with re-  
23 spect to trademark applications; and

24 (3) that contains recommendations regarding  
25 ways to improve the training of patent examiners at

1 the Office, with a particular emphasis on improving  
2 that training with respect to—

3 (A) the application of the conditions and  
4 requirements of sections 101, 102, 103, and  
5 112 of title 35, United States Code, including  
6 avoiding repetitive and unduly multiplied  
7 claims;

8 (B) searches performed throughout the  
9 patent examination process to ensure that the  
10 Office issues fewer unclear and invalid patent  
11 claims; and

12 (C) examination fields affected by emerg-  
13 ing and complex technologies, including ad-  
14 vanced data science analytics, to ensure that ex-  
15 aminers are fully equipped to understand the  
16 applications of those technologies.

17 **SEC. 5. USPTO GUIDANCE ON PATENT EXAMINATION IM-**  
18 **PROVEMENT.**

19 Not later than 1 year after the date on which the  
20 Comptroller General of the United States submits the re-  
21 port required under section 4 (referred to in this section  
22 as the “covered report”), the Director shall develop guid-  
23 ance for patent examiners at the Office—

1 (1) regarding how to improve the patent exam-  
2 ination process at, and the overall quality of patents  
3 issued by, the Office; and

4 (2) that shall—

5 (A) place a particular emphasis on improv-  
6 ing the process described in paragraph (1)—

7 (i) with respect to the application of  
8 the conditions and requirements of sections  
9 101, 102, 103, and 112 of title 35, United  
10 States Code, including avoiding repetitive  
11 and unduly multiplied claims; and

12 (ii) by more clearly defining what con-  
13 stitutes a clear and thorough search by a  
14 patent examiner throughout the entire pat-  
15 ent examination process at the Office; and

16 (B) take into consideration the findings  
17 and recommendations in the covered report.

18 **SEC. 6. REPORT.**

19 Not later than 2 years after the date of enactment  
20 of this Act, the Director, after soliciting public comment,  
21 shall submit to Congress a report that includes—

22 (1) an explanation of how the Office will im-  
23 prove the technical training of patent examiners at  
24 the Office with respect to emerging areas of tech-  
25 nology;



1           (2) the status of the capabilities of the informa-  
2           tion technology systems of the Office with respect  
3           to—

4                   (A) the examination of patents and trade-  
5           marks;

6                   (B) proceedings conducted before—

7                           (i) the Patent Trial and Appeal Board  
8                           of the Office; and

9                           (ii) the Trademark Trial and Appeal  
10                          Board of the Office; and

11                   (C) the recordation of patent assignments;

12           (3) a 5-year plan for further modernization of  
13           the information technology systems described in  
14           paragraph (2); and

15           (4) an accounting of the use by the Office of  
16           advanced data science analytics, including from com-  
17           mercially available sources, to improve the patent ex-  
18           amination process where appropriate, including—

19                   (A) a description of how the Office uses  
20           advanced data science analytics with respect to  
21           the examination of patents to—

22                           (i) ensure that patent claims have  
23                           adequate support in the specifications with  
24                           respect to those claims;

- 1 (ii) improve clarity, quality, and con-  
2 sistency;
- 3 (iii) detect common sources of error;
- 4 (iv) improve productivity; and
- 5 (v) ensure assignment of patent appli-  
6 cations to the examiner best qualified to  
7 examine that application;
- 8 (B) a 5-year plan for further development  
9 of advanced data science analytics for the uses  
10 described in subparagraph (A); and
- 11 (C) a description of how the findings made  
12 as a result of the uses of advanced data science  
13 analytics under subparagraph (A) shall be made  
14 available to the public on a regular basis.

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