

116TH CONGRESS
2D SESSION

S. 5052

To increase fairness and transparency in algorithmic eligibility determinations.

IN THE SENATE OF THE UNITED STATES

DECEMBER 17, 2020

Mr. COONS introduced the following bill; which was read twice and referred
to the Committee on Commerce, Science, and Transportation

A BILL

To increase fairness and transparency in algorithmic
eligibility determinations.

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; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Algorithmic Fairness Act of 2020”.

6 (b) TABLE OF CONTENTS.—The table of contents of
7 this Act is as follows:

Sec. 1. Short title; table of contents.

Sec. 2. Definitions.

Sec. 3. FTC study and report on ways companies are developing and imple-
menting algorithmic eligibility determinations.

Sec. 4. Substantive fairness.

Sec. 5. Procedural fairness.

Sec. 6. Enforcement.

Sec. 7. Research grants for the study of fair and transparent data analytics.

Sec. 8. Leadership program.

Sec. 9. Avoiding duplication.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) **ALGORITHMIC ELIGIBILITY DETERMINA-**
 4 **TION.**—The term “algorithmic eligibility determina-
 5 tion” means a determination based in whole or in
 6 significant part on an algorithmic process that uti-
 7 lizes methods of machine learning, advanced statis-
 8 tical techniques, artificial intelligence, or similar
 9 techniques to determine the eligibility for, the denial
 10 of access to, the receipt of information about, the
 11 cost of acquiring, the opportunity to access, or the
 12 revocation of important opportunities including, but
 13 not limited to, education, employment, credit, health
 14 care insurance, and housing.

15 (2) **COMMISSION.**—The term “Commission”
 16 means the Federal Trade Commission.

17 (3) **COVERED ENTITY.**—The term “covered en-
 18 tity” means an entity that—

19 (A) makes an algorithmic eligibility deter-
 20 mination; and

21 (B) is—

22 (i) a person over which the Commis-
 23 sion has authority pursuant to section
 24 5(a)(2) of the Federal Trade Commission

1 Act (15 U.S.C. 45(a)(2)), but including
2 banks, savings and loan institutions, and
3 Federal credit unions that are otherwise
4 excluded under such section;

5 (ii) a common carrier subject to the
6 Communications Act of 1934 (47 U.S.C.
7 151 et seq.), notwithstanding the definition
8 of the term “Acts to regulate commerce”
9 in section 4 of the Federal Trade Commis-
10 sion Act (15 U.S.C. 44) and the exception
11 provided by section 5(a)(2) of the Federal
12 Trade Commission Act (15 U.S.C.
13 45(a)(2)) for such carriers; or

14 (iii) a nonprofit organization, includ-
15 ing any organization described in section
16 501(c) of the Internal Revenue Code of
17 1986 that is exempt from taxation under
18 section 501(a) of such Code, notwith-
19 standing the definition of the term “Acts
20 to regulate commerce” in section 4 of the
21 Federal Trade Commission Act (15 U.S.C.
22 44) and the exception provided by section
23 5(a)(2) of the Federal Trade Commission
24 Act (15 U.S.C. 45(a)(2)) for such organi-
25 zations.

1 (4) ONLINE ADVERTISEMENT.—The term “on-
 2 line advertisement” means an algorithmic eligibility
 3 determination that determines whether an individual
 4 receives promotional information from a covered en-
 5 tity through the use of paid internet or paid digital
 6 communication.

7 (5) SEARCH RESULT.—The term “search re-
 8 sult” means an algorithmic eligibility determination
 9 that determines the information an individual is pre-
 10 sented after querying an internet search engine.

11 **SEC. 3. FTC STUDY AND REPORT ON WAYS COMPANIES ARE**
 12 **DEVELOPING AND IMPLEMENTING ALGO-**
 13 **RITHMIC ELIGIBILITY DETERMINATIONS.**

14 (a) STUDY.—The Commission shall conduct a study
 15 on the ways covered entities are developing and imple-
 16 menting algorithmic eligibility determinations. Such study
 17 shall include an analysis of—

18 (1) the industries that most commonly utilize
 19 algorithmic eligibility determinations;

20 (2) the types of algorithmic eligibility deter-
 21 minations that covered entities make;

22 (3) the data, data sources, pre-processing strat-
 23 egies and other practices, data collection tech-
 24 nologies, and methodologies that covered entities use
 25 to make such determinations;

1 (4) the transparency of algorithmic eligibility
2 determinations, including the types of explanations
3 that covered entities disclose to—

4 (A) individuals or entities that are the sub-
5 ject of an algorithmic eligibility determination;

6 (B) regulators; and

7 (C) the general public;

8 (5) whether and how human decision makers
9 are involved in rendering algorithmic eligibility de-
10 terminations;

11 (6) whether covered entities have a mechanism
12 to receive complaints about algorithmic eligibility de-
13 terminations, and the number and nature of such
14 complaints received from individuals regarding such
15 determinations;

16 (7) whether covered entities have accountability
17 procedures in place should an algorithmic eligibility
18 determination be questioned or challenged, a de-
19 scription of such accountability procedures, and
20 what remedial steps covered entities have taken, if
21 any;

22 (8) what information a covered entity could rea-
23 sonably be required to disclose such that an indi-
24 vidual could understand, question, or challenge an
25 algorithmic eligibility determination;

1 (9) whether covered entities perform algo-
2 rithmic audits to understand whether algorithmic eli-
3 gibility determinations are fair, how covered entities
4 define fairness for this purpose, and whether any
5 such audit techniques and outcomes of audits are
6 available to individuals or groups challenging an al-
7 gorithmic eligibility determination;

8 (10) the extent to which, if any, algorithmic eli-
9 gibility determinations consider factors such as geo-
10 graphic information, income, ethnicity, race, religion,
11 national origin, age, sex, sexual orientation, dis-
12 ability information, pregnancy, marital status, phys-
13 ical or mental health status, criminal history status,
14 or proxies for such factors;

15 (11) the extent to which algorithmic eligibility
16 determinations could result in negative or differen-
17 tial treatment of individuals based on the factors de-
18 scribed in paragraph (10); and

19 (12) the best way to address intellectual prop-
20 erty concerns of covered entities, like trade secret
21 protections, that may arise if the Federal Govern-
22 ment requires companies to share information re-
23 lated to their algorithmic eligibility determination
24 processes.

25 (b) REPORTS.—

1 (1) INITIAL REPORT.—Not later than 1 year
2 after the date of the enactment of this Act, and once
3 every 3 years thereafter (until a total of 4 reports
4 have been submitted), the Commission shall submit
5 to Congress a report on the study conducted under
6 subsection (a), together with recommendations for
7 such additional legislation and administrative action
8 as the Commission determines appropriate.

9 (2) SPECIAL RULE.—In the final report sub-
10 mitted in accordance with paragraph (1), the Com-
11 mission shall include a recommendation as to wheth-
12 er to continue conducting the study under subsection
13 (a) (and submitting corresponding reports under this
14 subsection).

15 (c) CONSULTATION.—In conducting the study under
16 subsection (a) and preparing the reports under subsection
17 (b), the Commission shall consult with—

18 (1) the National Institute of Standards and
19 Technology;

20 (2) the Department of Homeland Security;

21 (3) the Consumer Financial Protection Bureau;

22 (4) the Department of Housing and Urban De-
23 velopment;

24 (5) the Department of Health and Human
25 Services;

- 1 (6) the Department of Veterans Affairs;
- 2 (7) the Department of Education;
- 3 (8) the Federal Communications Commission;
- 4 (9) the Equal Employment Opportunity Com-
- 5 mission; and
- 6 (10) the Civil Rights Division of the Depart-
- 7 ment of Justice.

8 **SEC. 4. SUBSTANTIVE FAIRNESS.**

9 (a) IN GENERAL.—A covered entity shall not act on
 10 an unfair algorithmic eligibility determination in or affect-
 11 ing commerce.

12 (b) CONSIDERATIONS.—In determining whether a
 13 particular algorithmic eligibility determination is unfair,
 14 the Commission—

15 (1) shall consider the factors specified in sec-
 16 tion 5(n) of the Federal Trade Commission Act (15
 17 U.S.C. 45(n)); and

18 (2) may consider—

19 (A) established public policies;

20 (B) emotional distress, bias on the basis of
 21 protected class status, and other noneconomic
 22 injuries, and may conclude that these injuries
 23 contribute to substantial injury to consumers
 24 for the purposes of section 5(n) of the Federal
 25 Trade Commission Act (15 U.S.C. 45(n)); and

(C) any code of conduct developed by industry sectors, civil rights groups, consumer protection groups, or academics, as long as the Commission has first published such code of conduct in the Federal Register and provided for a period of public comment in accordance with section 553 of title 5, United States Code.

SEC. 5. PROCEDURAL FAIRNESS.

(a) IN GENERAL.—Beginning 1 year after the date of the enactment of this Act, each covered entity shall, for each algorithmic eligibility determination—

(1) retain for at least 5 years an audit trail that records—

(A) the data used by the algorithm, as it existed at the time the algorithm was deployed and rendered the algorithmic eligibility determination;

(B) the source of pre-processing techniques, or any other technique used to produce any such data described in subparagraph (A);

(C) the methodology used by the entity to develop the algorithm;

(D) the version of the design of the algorithm utilized to make the determination;

1 (E) any data or sets of data used to train
2 the algorithm;

3 (F) any testing for model performance for
4 discriminatory effects across different sub-
5 groups and the results of such testing;

6 (G) the methodology used to render the de-
7 termination; and

8 (H) the ultimate determination rendered;

9 (2) notify the individual that they have been the
10 subject of an algorithmic eligibility determination;
11 and

12 (3) upon request, provide the individual with
13 the opportunity to—

14 (A) access the data pertaining to that indi-
15 vidual that the covered entity employed to make
16 the determination, in a human-readable format
17 that a reasonable individual can understand;

18 (B) submit corrections to the data per-
19 taining to that individual that the covered enti-
20 ty used in the algorithmic eligibility determina-
21 tion; and

22 (C) request that the covered entity conduct
23 a reevaluation of the relevant algorithmic eligi-
24 bility determination based on the corrected
25 data.

1 (b) REVIEW.—Upon the request of the Commission,
2 a covered entity shall make available to the Commission
3 the full audit trail described in subsection (a)(1). The
4 Commission shall establish a secure and confidential proc-
5 ess for reviewing the materials created and retained under
6 such subsection.

7 (c) REQUEST TO THE COMMISSION.—An individual
8 who has been the subject of an algorithmic eligibility de-
9 termination may request that the Commission conduct a
10 review (and the Commission may conduct such a review)
11 of—

12 (1) the algorithmic eligibility determination to
13 determine if it was unfair (determined pursuant to
14 section (4)); and

15 (2) a covered entity's reevaluation of an algo-
16 rithmic eligibility determination where an individual
17 has submitted corrected data.

18 (d) RULE OF CONSTRUCTION.—Nothing in this sec-
19 tion shall be construed to require a covered entity to pro-
20 vide an individual with the algorithm or model used to
21 make the eligibility determination, or otherwise divulge le-
22 gally protected trade secrets.

23 (e) SCOPE.—Notwithstanding any of the preceding
24 provisions of this section, subsection (a)(2) shall not apply
25 to—

- 1 (1) online advertisements;
- 2 (2) search results; or
- 3 (3) any other use case for which the Commis-
- 4 sion determines, by rulemaking in accordance with
- 5 section 553 of title 5, United States Code, that the
- 6 requirements of subsection (a)(2) would impose an
- 7 undue burden on or prove to be infeasible for that
- 8 general class of use case.

9 **SEC. 6. ENFORCEMENT.**

10 (a) **ENFORCEMENT BY THE FEDERAL TRADE COM-**
11 **MISSION.**—

12 (1) **UNFAIR ACT OR PRACTICE.**—Any covered
13 entity that violates section 4 or section 5 shall be
14 deemed to have committed an unfair act or practice
15 under section 5(a)(1) of the Federal Trade Commis-

16 sion Act (15 U.S.C. 45(a)(1)).
17 (2) **POWERS OF THE COMMISSION.**—

18 (A) **IN GENERAL.**—The Commission shall
19 enforce sections 4 and 5 in the same manner,
20 by the same means, and with the same jurisdic-

21 tion, powers, and duties as though all applicable
22 terms and provisions of the Federal Trade
23 Commission Act (15 U.S.C. 41 et seq.) were in-
24 corporated into and made a part of this section.

1 (B) CIVIL PENALTY AUTHORITY.—When
 2 enforcing section 4 or 5, the Commission may,
 3 depending on the nature and severity of the vio-
 4 lation, include an assessment of a civil penalty
 5 in the cease and desist order provided for under
 6 section 5(b) of the Federal Trade Commission
 7 Act (15 U.S.C. 45).

8 (C) PRIVILEGES AND IMMUNITIES.—Any
 9 covered entity that violates section 4 or 5 shall
 10 be subject to the penalties and entitled to the
 11 privileges and immunities provided in the Fed-
 12 eral Trade Commission Act (15 U.S.C. 41 et
 13 seq.).

14 (D) AUTHORITY PRESERVED.—Nothing in
 15 this subsection shall be construed to limit the
 16 authority of the Commission under any other
 17 provision of law.

18 (b) REGULATIONS.—

19 (1) IN GENERAL.—The Commission may pro-
 20 mulgate, in accordance with section 553 of title 5,
 21 United States Code, regulations to—

22 (A) carry out section 4, including by de-
 23 scribing which algorithmic eligibility determina-
 24 tions are unfair for the purposes of section 5 of

1 the Federal Trade Commission Act (15 U.S.C.
2 45); and

3 (B) carry out section 5.

4 (2) NO REQUIREMENT FOR REGULATIONS.—

5 Nothing in this Act shall require the Commission to
6 promulgate regulations before enforcing violations of
7 section 4 or 5.

8 (c) REFERRAL REGARDING A POTENTIAL VIOLATION
9 OF A FEDERAL ANTI-DISCRIMINATION LAW.—If the Com-
10 mission finds that an algorithmic eligibility determination
11 may be in violation of a Federal anti-discrimination law,
12 the Commission shall refer the matter to the appropriate
13 Federal or State agency with authority to initiate pro-
14 ceedings relating to such violation.

15 **SEC. 7. RESEARCH GRANTS FOR THE STUDY OF FAIR AND**
16 **TRANSPARENT DATA ANALYTICS.**

17 (a) GRANT AUTHORITY.—The Director of the Na-
18 tional Institute of Standards and Technology may award
19 grants for research into fair, accountable, and transparent
20 data analytics and machine learning, particularly with re-
21 spect to algorithmic eligibility determinations.

22 (b) FUNDING.—There are authorized to be appro-
23 priated \$10,000,000 for each of fiscal years 2021 through
24 2026, to carry out this section. Amounts appropriated

1 under the preceding sentence shall remain available until
2 expended.

3 **SEC. 8. LEADERSHIP PROGRAM.**

4 (a) IN GENERAL.—By not later than 1 year after the
5 date of the enactment of this Act, the Commission shall
6 establish a leadership program under which the Commis-
7 sion recognizes covered entities that display excellence in
8 fair, accountable, and transparent data science or machine
9 learning, particularly with respect to algorithmic eligibility
10 determinations.

11 (b) PROCESS.—Such leadership program shall in-
12 clude a process for—

13 (1) covered entities to apply to the Commission
14 for such recognition;

15 (2) the Commission, in consultation with the
16 National Institute of Standards and Technology, to
17 evaluate the merits of applications in accordance
18 with standards that the Commission shall promul-
19 gate as a rule under section 553 of title 5, United
20 States Code; and

21 (3) recognizing covered entities that the Com-
22 mission determines have achieved excellence in fair,
23 accountable, and transparent data science or ma-
24 chine learning, particularly with respect to algo-
25 rithmic eligibility determinations.

1 **SEC. 9. AVOIDING DUPLICATION.**

2 In implementing the provisions of this Act, the Com-
3 mission shall work with other Federal agencies to avoid
4 the burden on a covered entity from having to comply with
5 requirements under this Act that may be duplicative of
6 requirements under other provisions of Federal law.

○