

116TH CONGRESS
2D SESSION

H. R. 8239

To facilitate the development and distribution of forensic science standards by establishing in the National Institute of Standards and Technology the Organization of Scientific Area Committees for Forensic Science, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 14, 2020

Ms. JOHNSON of Texas (for herself and Mr. LUCAS) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committee on the Judiciary, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To facilitate the development and distribution of forensic science standards by establishing in the National Institute of Standards and Technology the Organization of Scientific Area Committees for Forensic Science, 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 “Forensic Science Re-
5 search and Standards Act of 2020”.

1 **SEC. 2. FINDINGS.**

2 Congress makes the following findings:

3 (1) In 2009, the National Research Council
4 published a report entitled “Strengthening Forensic
5 Science in the United States: A Path Forward”,
6 which provided a roadmap for the future of forensics
7 research.

8 (2) The Federal Government, forensic science
9 community, the research community, and the legal
10 community have taken steps to move the field of fo-
11 rensic science forward since the release of this re-
12 port.

13 (3) There are still scientific advances to be
14 made to bring further rigor to the forensic analyses
15 used in courts across the United States.

16 **SEC. 3. DEFINITIONS.**

17 In this Act:

18 (1) APPROPRIATE COMMITTEES OF CON-
19 GRESS.—The term “appropriate committees of Con-
20 gress” means—

21 (A) the Committee on Commerce, Science,
22 and Transportation of the Senate; and

23 (B) the Committee on Science, Space, and
24 Technology of the House of Representatives.

1 (2) BOARD.—The term “Board” means the Fo-
2 rensic Science Standards Board established under
3 section 5(b)(1).

4 (3) FORENSIC SCIENCE.—The term “forensic
5 science” refers to the application of scientific or
6 technical practices to the recognition, collection,
7 analysis, and interpretation of evidence to establish
8 opinions, facts, and findings that can be used for
9 criminal and civil law or regulatory purposes.

10 (4) FORENSIC SCIENCE COMMUNITY.—The
11 term “forensic science community” means forensic
12 science practitioners, agencies, and service providers,
13 forensic medicolegal death investigators, medical ex-
14 aminers or coroners, agencies, and service providers,
15 various scientists, and forensic organizational mem-
16 bers with applied scientific and technical knowledge
17 of and proximity to the area of forensic science.

18 (5) FORENSIC SCIENCE PRACTITIONER.—The
19 term “forensic science practitioner” means an indi-
20 vidual who—

21 (A) applies scientific or technical practices
22 to the recognition, collection, analysis, or inter-
23 pretation of evidence for criminal and civil law
24 or regulatory purposes; and

1 (B) issues test results, provides reports, or
2 provides interpretations, conclusions, or opin-
3 ions through testimony with respect to such evi-
4 dence.

5 (6) ORGANIZATION.—The term “Organization”
6 means the Organization of Scientific Area Commit-
7 tees for Forensic Science established under section
8 5(a)(1).

9 (7) NONGOVERNMENTAL STANDARDS DEVELOP-
10 MENT ORGANIZATIONS.—The term “nongovern-
11 mental standards development organization” means
12 a standards developing organization as defined in
13 section 2(e) of Office of Management and Budget
14 Circular A–119 (relating to Federal participation in
15 the development and use of voluntary consensus
16 standards in conformity assessment activities), or
17 any successor document.

18 (8) SECRETARY.—The term “Secretary” means
19 the Secretary of Commerce.

20 **SEC. 4. NATIONAL FORENSIC SCIENCE RESEARCH COORDI-**
21 **NATION AND STRATEGY.**

22 (a) INTERAGENCY WORKING GROUP ON FORENSIC
23 SCIENCE.—

24 (1) ESTABLISHMENT.—The Director of the Of-
25 fice of Science and Technology Policy shall establish

1 an interagency working group (referred to in this
2 section as the “Working Group”) for the purpose of
3 coordinating Federal investments relating to, and
4 developing a research strategy for, forensic science.

5 (2) MEMBERSHIP.—

6 (A) COMPOSITION.—The Working Group
7 shall be composed of members as follows:

8 (i) One or more members selected by
9 the Director of the National Science Foun-
10 dation as the Director of the National
11 Science Foundation considers appropriate.

12 (ii) One or more members selected by
13 the Director of the National Institute of
14 Standards and Technology as the Director
15 of the National Institute of Standards and
16 Technology considers appropriate.

17 (iii) One or more members selected by
18 the Attorney General as the Attorney Gen-
19 eral considers appropriate, which shall in-
20 clude a representative with expertise in
21 conducting scientific research.

22 (iv) One or more members selected by
23 the Director of the Office of Science and
24 Technology Policy as the Director con-
25 siders appropriate.

1 (v) Such additional members from
2 such other Federal agencies responsible for
3 conducting forensic science research or
4 that have expertise in conducting and
5 funding scientific research as the Director
6 of the Office of Science and Technology
7 Policy considers appropriate.

8 (B) REQUIREMENT.—Each member of the
9 Working Group appointed under subparagraph
10 (A) shall be an employee of the Federal Govern-
11 ment.

12 (3) CHAIRPERSON AND VICE CHAIRPERSON.—

13 (A) IN GENERAL.—The Working Group
14 shall select a Chairperson and Vice Chairperson
15 from among the members of the Working
16 Group.

17 (B) TERM.—The terms of the Chairperson
18 and the Vice Chairperson of the Working Group
19 shall each be for periods of 2 years.

20 (C) ROTATING BASIS.—After the initial
21 terms of the Chairperson and Vice Chairperson
22 of the Working Group, such positions shall be
23 filled on a rotating basis from the members of
24 the Working group for successive 2-year terms.

25 (4) RESEARCH STRATEGY.—

1 (A) IN GENERAL.—Not later than 1 year
2 after the date of the enactment of this Act and
3 not less frequently than once every 2 years
4 thereafter until the termination of the Working
5 Group, the Working Group shall publish a re-
6 search strategy for the Federal Government on
7 forensic science.

8 (B) CONTENTS.—The strategy required by
9 subparagraph (A) shall include the following:

10 (i) Specification of priority areas, in-
11 cluding specific milestones and objectives
12 as appropriate, for the short-term and
13 long-term research necessary—

14 (I) to enhance the validity and
15 reliability of forensic science dis-
16 ciplines, including emerging dis-
17 ciplines; and

18 (II) to provide the scientific basis
19 for the development and updating of
20 forensic science standards pursuant to
21 section 5.

22 (ii) A description of the role of each
23 relevant Federal agency in supporting the
24 specific areas of research identified under
25 clause (i).

1 (iii) A description of common metrics
2 and other evaluation criteria that will be
3 used to assess progress toward achieving
4 the priorities, milestones, and objectives
5 identified under clause (i), consistent with
6 the mission of each Federal agency speci-
7 fied under clause (ii).

8 (iv) Recommendations, if any, for
9 policies to support the implementation of
10 the research strategy, including opportuni-
11 ties for new or expanded interagency col-
12 laborations.

13 (v) A description of the options, if
14 any, for a Federal Government role in
15 helping to ensure the viability of a non-
16 governmental standards development orga-
17 nization for the promulgation of forensic
18 science standards developed under section
19 5.

20 (vi) A description of changes or
21 progress since the publication of the pre-
22 vious research strategy.

23 (5) CONSULTATION REQUIRED.—In developing
24 the research strategy under paragraph (4), the
25 Working Group shall consult with stakeholders, in-

1 including forensic science practitioners, forensic
2 science working groups within the Office of Justice
3 Programs of the Department of Justice, the Organi-
4 zation of Scientific Area Committees (OSAC) for
5 Forensic Science of the National Institute of Stand-
6 ards and Technology, statisticians, criminal justice
7 stakeholders, and research scientists to ensure that
8 the strategy takes into account practical applications
9 and implementation of the research.

10 (6) TERMINATION.—The Working Group estab-
11 lished under paragraph (1) shall terminate on the
12 date that is 10 years after the date on which such
13 working group is established.

14 (b) IMPLEMENTATION.—The Director of the National
15 Science Foundation, the Director of the National Institute
16 of Standards and Technology, and the Attorney General,
17 shall continue to advance the foundation and practice of
18 forensic science in the United States by—

19 (1) conducting or supporting research in foren-
20 sic science, consistent with the Federal research
21 strategy developed under subsection (a)(3);

22 (2) building relationships between members of
23 the forensic science community and researchers at
24 universities;

1 (3) encouraging and promoting the education
2 and training of a diverse group of people to be lead-
3 ers in the interdisciplinary field of forensic science;
4 and

5 (4) broadly disseminating the results of the re-
6 search conducted or supported under paragraph (1).

7 **SEC. 5. FACILITATING DEVELOPMENT AND DISTRIBUTION**
8 **OF FORENSIC SCIENCE STANDARDS.**

9 (a) ORGANIZATION OF SCIENTIFIC AREA COMMIT-
10 TEES FOR FORENSIC SCIENCE.—

11 (1) ESTABLISHMENT.—The Secretary, acting
12 through the Director of the National Institute of
13 Standards and Technology (referred to in this sec-
14 tion as the “Director”), shall establish within the
15 National Institute of Standards and Technology an
16 organization to facilitate the development of forensic
17 science standards.

18 (2) DESIGNATION.—The organization estab-
19 lished under paragraph (1) shall be known as the
20 “Organization of Scientific Area Committees for Fo-
21 rensic Science”.

22 (3) COMPOSITION.—The Organization shall be
23 composed of the following:

24 (A) The Forensic Science and Standards
25 Board established under subsection (b).

1 (B) Each scientific area committee estab-
2 lished under subsection (c).

3 (4) DUTIES OF THE ORGANIZATION.—The du-
4 ties of the Organization are as follows:

5 (A) Facilitate the development and dis-
6 tribution of scientifically sound, consensus-
7 based documentary standards and guidelines for
8 forensic science, including through formal col-
9 laboration with nongovernmental standards de-
10 velopment organizations.

11 (B) Establish a registry of scientifically
12 sound forensic science standards and guidelines
13 approved and endorsed by the Organization.

14 (C) Establish a process for regularly re-
15 evaluating existing standards and guidelines
16 published for placement on the registry estab-
17 lished under subparagraph (B).

18 (D) Promote the adoption by the forensic
19 science community of the standards and guide-
20 lines described in subparagraph (A) and in-
21 cluded in the registry established under sub-
22 paragraph (B).

23 (b) FORENSIC SCIENCE STANDARDS BOARD.—

24 (1) ESTABLISHMENT.—The Secretary, acting
25 through the Director, shall establish within the Or-

1 organization a board to oversee the operations of the
2 Organization and its committees.

3 (2) DESIGNATION.—The board established
4 under paragraph (1) shall be known as the “Foren-
5 sic Science Standards Board”.

6 (3) COMPOSITION.—The Board shall be com-
7 posed of the following:

8 (A) Members selected by the Secretary to
9 serve on the Board from each of the following:

10 (i) Members of the forensic science
11 community.

12 (ii) Scientists and engineers with rel-
13 evant expertise at institutions of higher
14 education and other nonprofit research or-
15 ganizations.

16 (iii) Statisticians.

17 (iv) A representative of each of the
18 task groups established under subsection
19 (d), as the Secretary considers appropriate.

20 (v) Such other communities or sectors
21 as the Secretary considers appropriate.

22 (B) The chairpersons of the scientific area
23 committees established under subsection (c).

24 (4) DUTIES.—The duties of the Board are as
25 follows:

1 (A) Oversee all operations of the Organiza-
2 tion, including the committees of the Organiza-
3 tion.

4 (B) Establish governance rules and policies
5 for the Organization.

6 (C) Facilitate communication within the
7 Organization and between the Organization, the
8 criminal justice community, and the forensic
9 science community.

10 (D) Oversee the reviewing and approving
11 process of standards to be added to the registry
12 established under subsection (a)(4)(B).

13 (5) AUTHORITY TO APPROVE STANDARDS FOR
14 LISTING IN REGISTRY OF FORENSIC SCIENCE STAND-
15 ARDS AND GUIDELINES.—The Board may approve
16 standards for listing on the registry established
17 under subsection (a)(4)(B).

18 (c) SCIENTIFIC AREA COMMITTEES.—

19 (1) ESTABLISHMENT.—The Secretary, acting
20 through the Director, shall establish one or more sci-
21 entific area committees to carry out the work of the
22 Organization.

23 (2) MEMBERSHIP.—

1 (A) COMPOSITION.—Each scientific area
2 committee established under paragraph (1)
3 shall be composed of the following:

4 (i) The chairperson of the scientific
5 area committee.

6 (ii) The vice chairperson of the sci-
7 entific area committee.

8 (iii) The chairperson of each sub-
9 committee established under paragraph (3)
10 for each scientific area committee under
11 paragraph (1).

12 (B) CHAIRPERSON AND VICE CHAIR-
13 PERSON.—

14 (i) IN GENERAL.—For each scientific
15 area committee established under para-
16 graph (1), the Secretary shall appoint a
17 chairperson and a vice chairperson for the
18 scientific area committee from among indi-
19 viduals with expertise in the subject area
20 of the scientific area committee.

21 (ii) SERVICE.—Each chairperson and
22 vice chairperson appointed under clause (i)
23 shall serve as a chairperson or vice chair-
24 person at the pleasure of the Secretary.

25 (3) SUBCOMMITTEES.—

1 (A) ESTABLISHMENT.—The Secretary may
2 establish such subcommittees in a scientific
3 area committee established under paragraph (1)
4 as the Secretary considers appropriate to assist
5 in the work of the scientific area committee.

6 (B) MEMBERSHIP.—Each subcommittee
7 established under subparagraph (A) shall be
8 composed of such members selected by the Sec-
9 retary from among the following:

10 (i) Forensic science practitioners.

11 (ii) Scientists and engineers at institu-
12 tions of higher education and other non-
13 profit research organizations.

14 (iii) Statisticians.

15 (iv) Representatives of the legal com-
16 munity.

17 (v) Such others as the Secretary con-
18 sider appropriate for purposes of this sec-
19 tion.

20 (4) DUTIES.—The duties of a scientific area
21 committee established under paragraph (1) shall be
22 as follows:

23 (A) Coordinate the operation and activities
24 of specific forensic science discipline subcommit-
25 tees in order to encourage communication

1 across all subject- and discipline-specific sub-
2 committees.

3 (B) Provide the public with the oppor-
4 tunity to engage the forensic science community
5 in matters relating to priorities, standards, and
6 guidelines.

7 (C) Address topics of high importance to
8 the forensic community, such as matters relat-
9 ing to the following:

10 (i) Biology.

11 (ii) Chemistry, including—

12 (I) matters relating to seized
13 drugs and toxicology; and

14 (II) matters relating to trace evi-
15 dence.

16 (iii) Scene examination.

17 (iv) Medicine.

18 (v) Digital and multimedia.

19 (vi) Physics and pattern interpreta-
20 tion.

21 (vii) Computational forensic algo-
22 rithms.

23 (D) Further the development of standards
24 under subsection (e)(1) and other guidelines.

25 (d) RESOURCE TASK GROUPS.—

1 (1) ESTABLISHMENT.—The Secretary, acting
2 through the Board, shall establish legal, human fac-
3 tors, quality, and statistics task groups to support
4 and assist the Organization with matters relating to
5 questions of law, human factors, ethical and social
6 implications of technology, workflow processes, qual-
7 ity assurance, and statistics.

8 (2) MEMBERSHIP.—The Secretary, acting
9 through the Board, shall ensure that each task
10 group established under paragraph (1) is composed
11 of voting members of the subcommittees established
12 under subsection (c)(3) who have relevant expertise.

13 (3) CHAIRPERSONS.—The Secretary, acting
14 through the Board, shall appoint a chairperson of
15 each task group established under paragraph (1).

16 (e) FORENSIC SCIENCE STANDARDS DEVELOPMENT
17 PROCESS.—

18 (1) STANDARDS DEVELOPMENT PROCESS.—The
19 Secretary, acting through the Organization, shall im-
20 plement a process to facilitate the development of
21 scientifically sound, consensus-based forensic stand-
22 ards and guidelines, consistent with the duties de-
23 scribed for each entity established under this section.

24 (2) TECHNICAL REVIEW.—

1 (A) PROCESS REQUIRED.—The Secretary
2 shall establish a process for technical peer re-
3 view to provide feedback on a draft of a stand-
4 ard or guideline to a relevant subcommittee of
5 a scientific area committee before such stand-
6 ard or guideline is submitted to a nongovern-
7 mental standards development organization or
8 submitted for inclusion in a registry of forensic
9 standards or guidelines.

10 (B) PARTICIPANTS.—The process estab-
11 lished under subparagraph (A)—

12 (i) may include members of the Orga-
13 nization; and

14 (ii) shall include additional volunteer
15 experts from the forensic science commu-
16 nity and the academic research community.

17 (3) PUBLIC COMMENT.—

18 (A) IN GENERAL.—The Secretary shall
19 provide for public comment on draft standards
20 prior to inclusion in the registry of forensic
21 science standards and guidelines established
22 under subsection (a)(4)(B).

23 (B) COMMENTS FROM RESEARCH TASK
24 GROUPS.—The Secretary shall ensure that—

1 (i) each resource task group estab-
2 lished under subsection (d) may submit, as
3 a group, comments on draft standards de-
4 scribed in subparagraph (A); and

5 (ii) any comments submitted under
6 clause (i), and any adjudication of such
7 comments by the Organization, are made
8 available to the public.

9 (4) SUBMISSION TO STANDARDS DEVELOPING
10 ORGANIZATION.—The Secretary shall ensure that
11 standards proposed by the Organization and ap-
12 proved for the registry of forensic science standards
13 and guidelines established under subsection
14 (a)(4)(B) are submitted to a nongovernmental
15 standards development organization for review and
16 formal adoption as standards.

17 (5) GRANTS.—The Secretary, acting through
18 the Director, shall award grants through a competi-
19 tive process—

20 (A) to support activities under paragraph
21 (3); and

22 (B) to ensure that the standards approved
23 for inclusion in the registry of forensic science
24 standards and guidelines required by subsection

1 (a)(4)(B) are submitted to a nongovernmental
2 standards development organization.

3 (f) FORENSIC STANDARDS FOR AUTHENTICATING
4 DIGITAL EVIDENCE.—

5 (1) FURTHERING DEVELOPMENT OF STAND-
6 ARDS.—

7 (A) IN GENERAL.—The subcommittee ad-
8 dressing digital and multimedia, or any suc-
9 cessor thereto, shall develop standards for vali-
10 dating or assessing the authenticity of digital
11 content, including content created by tech-
12 nologies that synthesize or manipulate digital
13 content such as deepfakes.

14 (B) COLLABORATION.—In carrying out
15 subparagraph (A), the subcommittee described
16 in such subparagraph shall collaborate with the
17 forensic science community and experts who
18 study advanced techniques for digital content
19 manipulation, including those in academia and
20 government entities such as the Defense Ad-
21 vanced Research Projects Agency (DARPA).

22 (2) RESOURCE DEVELOPMENT.—The Organiza-
23 tion shall develop and compile resources and mate-
24 rials for use by the forensic science community in

1 developing standards to authenticate digital mate-
2 rials.

3 (3) CONGRESSIONAL BRIEFING.—Not later than
4 1 year after the date of the enactment of this Act,
5 the Secretary, acting through the Director, shall
6 provide the appropriate committees of Congress a
7 briefing on the status of efforts undertaken pursuant
8 to this subsection.

9 (g) AUTHORIZATION OF APPROPRIATIONS.—There is
10 authorized to be appropriated to carry out this section
11 \$6,000,000 for each of fiscal years 2021 through 2026,
12 of which \$1,000,000 shall be available in each of fiscal
13 years 2021 through 2026 to carry out subsection (e)(4).

14 **SEC. 6. FOUNDATIONAL RESEARCH.**

15 The Director of the National Institute of Standards
16 and Technology shall conduct foundational studies to—

17 (1) identify and document the technical merit
18 and validity of select forensic science methods, prac-
19 tices, and disciplines, including their capabilities,
20 limitations, and knowledge gaps; and

21 (2) identify opportunities for advancements in
22 forensic methods, practices, and disciplines through
23 additional research and improvements to practice.

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