

111TH CONGRESS
2D SESSION

H. R. 4997

To authorize appropriations for fiscal years 2011 through 2015 for the National Science Foundation, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 13, 2010

Mr. LIPINSKI introduced the following bill; which was referred to the Committee on Science and Technology

A BILL

To authorize appropriations for fiscal years 2011 through 2015 for the National Science Foundation, 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; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “National Science Foundation Authorization Act of
6 2010”.

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

Sec. 1. Short title; table of contents.

- Sec. 101. Definitions.
 Sec. 102. Authorization of appropriations.
 Sec. 103. National Science Board administrative amendments.
 Sec. 104. Broader impacts review criterion.

TITLE II—RESEARCH AND INNOVATION

- Sec. 201. Support for potentially transformative research.
 Sec. 202. Facilitating interdisciplinary collaborations for national needs.
 Sec. 203. National Science Foundation manufacturing research.
 Sec. 204. Strengthening institutional research partnerships.
 Sec. 205. National Science Board report on mid-scale instrumentation.
 Sec. 206. Sense of Congress on overall support for research infrastructure at the Foundation.

TITLE III—STEM EDUCATION AND WORKFORCE TRAINING

- Sec. 301. Graduate student support.
 Sec. 302. Postdoctoral fellowship in STEM education research.
 Sec. 303. Robert Noyce teacher scholarship program.
 Sec. 304. Institutions serving persons with disabilities.
 Sec. 305. Institutional integration.
 Sec. 306. Postdoctoral research fellowships.
 Sec. 307. Broadening participation training and outreach.

1 **TITLE I—GENERAL PROVISIONS**

2 **SEC. 101. DEFINITIONS.**

3 In this Act:

4 (1) **DIRECTOR.**—The term “Director” means
 5 the Director of the National Science Foundation es-
 6 tablished under section 2 of the National Science
 7 Foundation Act of 1950 (42 U.S.C. 1861).

8 (2) **FOUNDATION.**—The term “Foundation”
 9 means the National Science Foundation established
 10 under section 2 of the National Science Foundation
 11 Act of 1950 (42 U.S.C. 1861).

12 (3) **INSTITUTION OF HIGHER EDUCATION.**—The
 13 term “institution of higher education” has the

1 meaning given such term in section 101(a) of the
2 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

3 (4) STATE.—The term “State” means one of
4 the several States, the District of Columbia, the
5 Commonwealth of Puerto Rico, the Virgin Islands,
6 Guam, American Samoa, the Commonwealth of the
7 Northern Mariana Islands, or any other territory or
8 possession of the United States.

9 (5) STEM.—The term “STEM” means science,
10 technology, engineering, and mathematics.

11 (6) UNITED STATES.—The term “United
12 States” means the several States, the District of Co-
13 lumbia, the Commonwealth of Puerto Rico, the Vir-
14 gin Islands, Guam, American Samoa, the Common-
15 wealth of the Northern Mariana Islands, and any
16 other territory or possession of the United States.

17 **SEC. 102. AUTHORIZATION OF APPROPRIATIONS.**

18 (a) FISCAL YEAR 2011.—

19 (1) IN GENERAL.—There are authorized to be
20 appropriated to the Foundation \$8,219,670,000 for
21 fiscal year 2011.

22 (2) SPECIFIC ALLOCATIONS.—Of the amount
23 authorized under paragraph (1)—

24 (A) \$6,600,000,000 shall be made avail-
25 able for research and related activities;

1 (B) \$1,104,000,000 shall be made avail-
2 able for education and human resources;

3 (C) \$166,000,000 shall be made available
4 for major research equipment and facilities con-
5 struction;

6 (D) \$330,000,000 shall be made available
7 for agency operations and award management;

8 (E) \$4,840,000 shall be made available for
9 the Office of the National Science Board; and

10 (F) \$14,830,000 shall be made available
11 for the Office of Inspector General.

12 (b) FISCAL YEAR 2012.—

13 (1) IN GENERAL.—There are authorized to be
14 appropriated to the Foundation \$8,932,080,000 for
15 fiscal year 2012.

16 (2) SPECIFIC ALLOCATIONS.—Of the amount
17 authorized under paragraph (1)—

18 (A) \$7,128,000,000 shall be made avail-
19 able for research and related activities;

20 (B) \$1,192,320,000 shall be made avail-
21 able for education and human resources;

22 (C) \$235,000,000 shall be made available
23 for major research equipment and facilities con-
24 struction;

1 (D) \$356,400,000 shall be made available
2 for agency operations and award management;

3 (E) \$5,010,000 shall be made available for
4 the Office of the National Science Board; and

5 (F) \$15,350,000 shall be made available
6 for the Office of Inspector General.

7 (c) FISCAL YEAR 2013.—

8 (1) IN GENERAL.—There are authorized to be
9 appropriated to the Foundation \$9,555,160,000 for
10 fiscal year 2013.

11 (2) SPECIFIC ALLOCATIONS.—Of the amount
12 authorized under paragraph (1)—

13 (A) \$7,626,960,000 shall be made avail-
14 able for research and related activities;

15 (B) \$1,275,780,000 shall be made avail-
16 able for education and human resources;

17 (C) \$250,000,000 shall be made available
18 for major research equipment and facilities con-
19 struction;

20 (D) \$381,350,000 shall be made available
21 for agency operations and award management;

22 (E) \$5,180,000 shall be made available for
23 the Office of the National Science Board; and

24 (F) \$15,890,000 shall be made available
25 for the Office of Inspector General.

1 (d) FISCAL YEAR 2014.—

2 (1) IN GENERAL.—There are authorized to be
3 appropriated to the Foundation \$10,112,940,000 for
4 fiscal year 2014.

5 (2) SPECIFIC ALLOCATIONS.—Of the amount
6 authorized under paragraph (1)—

7 (A) \$8,084,580,000 shall be made avail-
8 able for research and related activities;

9 (B) \$1,352,330,000 shall be made avail-
10 able for education and human resources;

11 (C) \$250,000,000 shall be made available
12 for major research equipment and facilities con-
13 struction;

14 (D) \$404,230,000 shall be made available
15 for agency operations and award management;

16 (E) \$5,370,000 shall be made available for
17 the Office of the National Science Board; and

18 (F) \$16,440,000 shall be made available
19 for the Office of Inspector General.

20 (e) FISCAL YEAR 2015.—

21 (1) IN GENERAL.—There are authorized to be
22 appropriated to the Foundation \$10,704,180,000 for
23 fiscal year 2015.

24 (2) SPECIFIC ALLOCATIONS.—Of the amount
25 authorized under paragraph (1)—

1 (A) \$8,569,650,000 shall be made avail-
2 able for research and related activities;

3 (B) \$1,433,470,000 shall be made avail-
4 able for education and human resources;

5 (C) \$250,000,000 shall be made available
6 for major research equipment and facilities con-
7 struction;

8 (D) \$428,480,000 shall be made available
9 for agency operations and award management;

10 (E) \$5,550,000 shall be made available for
11 the Office of the National Science Board; and

12 (F) \$17,020,000 shall be made available
13 for the Office of Inspector General.

14 **SEC. 103. NATIONAL SCIENCE BOARD ADMINISTRATIVE**
15 **AMENDMENTS.**

16 (a) STAFFING AT THE NATIONAL SCIENCE BOARD.—
17 Section 4(g) of the National Science Foundation Act of
18 1950 (42 U.S.C. 1863(g)) is amended by striking “not
19 more than 5”.

20 (b) SCIENCE AND ENGINEERING INDICATORS DUE
21 DATE.—Section 4(j)(1) of the National Science Founda-
22 tion Act of 1950 (42 U.S.C. 1863(j)(1)) is amended by
23 striking “January 15” and inserting “May 31”.

24 (c) NATIONAL SCIENCE BOARD REPORTS.—Section
25 4(j)(2) of the National Science Foundation Act of 1950

1 (42 U.S.C. 1863(j)(2)) is amended by inserting “within
2 the authority of the Foundation (or otherwise as requested
3 by the Congress or the President)” after “individual policy
4 matters”.

5 (d) BOARD ADHERENCE TO SUNSHINE ACT.—Sec-
6 tion 15(a) of the National Science Foundation Authoriza-
7 tion Act of 2002 (42 U.S.C. 1862n–5(a)) is amended—

8 (1) by striking paragraph (3) and redesignating
9 paragraphs (4) and (5) as paragraphs (3) and (4),
10 respectively;

11 (2) in paragraph (3), as so redesignated by
12 paragraph (1) of this subsection—

13 (A) by striking “February 15” and insert-
14 ing “April 15”; and

15 (B) by striking “audit required under
16 paragraph (3) along with”; and

17 (3) in paragraph (4), as so redesignated by
18 paragraph (1) of this subsection, by striking “To fa-
19 cilitate the audit required under paragraph (3) of
20 this subsection, the” and inserting “The”.

21 **SEC. 104. BROADER IMPACTS REVIEW CRITERION.**

22 (a) GOALS.—The Foundation shall apply a Broader
23 Impacts Review Criterion to achieve the following goals:

24 (1) Increased economic competitiveness of the
25 United States.

1 (2) Development of a globally competitive
2 STEM workforce.

3 (3) Increased participation of women and
4 underrepresented minorities in STEM.

5 (4) Increased partnerships between academia
6 and industry.

7 (5) Improved K–12 STEM education and
8 teacher development.

9 (6) Improved undergraduate STEM education.

10 (7) Increased public scientific literacy.

11 (8) Increased national security.

12 (b) POLICY.—Not later than 6 months after the date
13 of enactment of this Act, the Director shall develop and
14 implement a policy for the Broader Impacts Review Cri-
15 terion that—

16 (1) provides for educating professional staff at
17 the Foundation, merit review panels, and applicants
18 for Foundation research grants on the policy devel-
19 oped under this subsection;

20 (2) clarifies that the activities of grant recipi-
21 ents undertaken to satisfy the Broader Impacts Re-
22 view Criterion shall—

23 (A) to the extent practicable employ proven
24 strategies and models and draw on existing pro-
25 grams and activities; and

1 (B) when novel approaches are justified,
2 build on the most current research results;

3 (3) allows for some portion of funds allocated to
4 broader impacts under a research grant to be used
5 for assessment and evaluation of the broader im-
6 pacts activity;

7 (4) encourages institutions of higher education
8 and other nonprofit organizations to develop and
9 provide, either as individual institutions or in part-
10 nerships thereof, appropriate training and programs
11 to assist Foundation-funded principal investigators
12 at their institutions in achieving the goals of the
13 Broader Impacts Review Criterion as described in
14 subsection (a); and

15 (5) requires principal investigators applying for
16 Foundation research grants to provide evidence of
17 institutional support for the portion of the investiga-
18 tor's proposal designed to satisfy the Broader Im-
19 pacts Review Criterion, including evidence of rel-
20 evant training, programs, and other institutional re-
21 sources available to the investigator from either their
22 home institution or organization or another institu-
23 tion or organization with relevant expertise.

1 **TITLE II—RESEARCH AND**
2 **INNOVATION**

3 **SEC. 201. SUPPORT FOR POTENTIALLY TRANSFORMATIVE**
4 **RESEARCH.**

5 (a) **POLICY.**—The Director shall establish a policy
6 that requires the Foundation to use at least 5 percent of
7 its research budget to fund basic, high-risk, high-reward
8 research proposals. Support for facilities and infrastruc-
9 ture, including preconstruction design and operations and
10 maintenance of major research facilities, shall not be
11 counted as part of the research budget for the purposes
12 of this section.

13 (b) **IMPLEMENTATION.**—In implementing such policy,
14 the Foundation may—

15 (1) develop solicitations specifically for high-
16 risk, high-reward research;

17 (2) establish review panels for the primary pur-
18 pose of selecting high-risk, high-reward proposals or
19 modify instructions to standard review panels to re-
20 quire identification of high-risk, high-reward pro-
21 posals; and

22 (3) support workshops and participate in con-
23 ferences with the primary purpose of identifying new
24 opportunities for high-risk, high-reward research, es-
25 pecially at interdisciplinary interfaces.

1 (c) DEFINITION.—For purposes of this section, the
2 term “high-risk, high-reward research” means research
3 driven by ideas that have the potential to radically change
4 our understanding of an important existing scientific or
5 engineering concept, or leading to the creation of a new
6 paradigm or field of science or engineering, and that is
7 characterized by its challenge to current understanding or
8 its pathway to new frontiers.

9 **SEC. 202. FACILITATING INTERDISCIPLINARY COLLABORA-**
10 **TIONS FOR NATIONAL NEEDS.**

11 (a) IN GENERAL.—The Director shall award competi-
12 tive, merit-based awards in amounts not to exceed
13 \$5,000,000 over a period of up to 5 years to interdiscipli-
14 nary research collaborations that are likely to assist in ad-
15 dressing critical challenges to national security, competi-
16 tiveness, and societal well-being and that—

17 (1) involve at least 2 co-equal principal inves-
18 tigators at the same or different institutions;

19 (2) draw upon well-integrated, diverse teams of
20 investigators, including students or postdoctoral re-
21 searchers, from one or more disciplines; and

22 (3) foster creativity and pursue high-risk, high-
23 reward research.

24 (b) PRIORITY.—In selecting grant recipients under
25 this section, the Director shall give priority to applicants

1 that propose to use advances in cyberinfrastructure and
2 simulation-based science engineering.

3 **SEC. 203. NATIONAL SCIENCE FOUNDATION MANUFAC-**
4 **TURING RESEARCH.**

5 The Director shall carry out a program to award
6 merit-reviewed, competitive grants to institutions of higher
7 education to support fundamental research leading to
8 transformative advances in manufacturing technologies,
9 processes, and enterprises that will support United States
10 manufacturing through improved performance, produc-
11 tivity, sustainability, and competitiveness. Research areas
12 may include—

- 13 (1) nanomanufacturing;
- 14 (2) manufacturing and construction machines
15 and equipment, including robotics, automation, and
16 other intelligent systems;
- 17 (3) manufacturing enterprise systems;
- 18 (4) advanced sensing and control techniques;
- 19 (5) materials processing; and
- 20 (6) information technologies for manufacturing,
21 including predictive and real-time models and sim-
22 ulations, and virtual manufacturing.

1 **SEC. 204. STRENGTHENING INSTITUTIONAL RESEARCH**
2 **PARTNERSHIPS.**

3 (a) IN GENERAL.—For any Foundation research
4 grant, in an amount greater than \$2,000,000, to be car-
5 ried out through a partnership that includes one or more
6 minority-serving institutions or predominantly under-
7 graduate institutions and one or more institutions de-
8 scribed in subsection (b), the Director shall award funds
9 directly, according to the budget justification described in
10 the grant proposal, to at least two of the institutions of
11 higher education in the partnership, including at least one
12 minority-serving institution or one predominantly under-
13 graduate institution, to ensure a strong and equitable
14 partnership.

15 (b) INSTITUTIONS.—The institutions referred to in
16 subsection (a) are institutions of higher education that are
17 among the 100 institutions receiving, over the 3-year pe-
18 riod immediately preceding the awarding of grants, the
19 highest amount of research funding from the Foundation.

20 **SEC. 205. NATIONAL SCIENCE BOARD REPORT ON MID-**
21 **SCALE INSTRUMENTATION.**

22 (a) MID-SCALE RESEARCH INSTRUMENTATION
23 NEEDS.—The National Science Board shall evaluate the
24 needs, across all disciplines supported by the Foundation,
25 for mid-scale research instrumentation that falls between
26 the instruments funded by the Major Research Instrumen-

1 tation program and the very large projects funded by the
2 Major Research Equipment and Facilities Construction
3 program.

4 (b) REPORT ON MID-SCALE RESEARCH INSTRUMENTEN-
5 TATION PROGRAM.—Not later than 1 year after the date
6 of enactment of this Act, the National Science Board shall
7 submit to Congress a report on mid-scale research instru-
8 mentation at the Foundation. At a minimum, this report
9 shall include—

10 (1) the findings from the Board’s evaluation of
11 instrumentation needs required under subsection (a),
12 including a description of differences across dis-
13 ciplines and Foundation research directorates;

14 (2) a recommendation or recommendations re-
15 garding how the Foundation should set priorities for
16 mid-scale instrumentation across disciplines and
17 Foundation research directorates;

18 (3) a recommendation or recommendations re-
19 garding the appropriateness of expanding existing
20 programs, including the Major Research Instrumen-
21 tation program or the Major Research Equipment
22 and Facilities Construction program, to support
23 more instrumentation at the mid-scale;

24 (4) a recommendation or recommendations re-
25 garding the need for and appropriateness of a new,

1 Foundation-wide program or initiative in support of
2 mid-scale instrumentation, including any rec-
3 ommendations regarding the administration of and
4 budget for such a program or initiative and the ap-
5 propriate scope of instruments to be funded under
6 such a program or initiative; and

7 (5) any recommendation or recommendations
8 regarding other options for supporting mid-scale re-
9 search instrumentation at the Foundation.

10 **SEC. 206. SENSE OF CONGRESS ON OVERALL SUPPORT FOR**
11 **RESEARCH INFRASTRUCTURE AT THE FOUN-**
12 **DATION.**

13 It is the sense of Congress that the Foundation
14 should strive to keep the percentage of the Foundation
15 budget devoted to research infrastructure in the range of
16 24 to 27 percent, as recommended in the 2003 National
17 Science Board report entitled “Science and Engineering
18 Infrastructure for the 21st Century”.

19 **TITLE III—STEM EDUCATION**
20 **AND WORKFORCE TRAINING**

21 **SEC. 301. GRADUATE STUDENT SUPPORT.**

22 (a) FINDING.—The Congress finds that—

23 (1) the Integrative Graduate Education and Re-
24 search Traineeship program is an important pro-
25 gram for training the next generation of scientists

1 and engineers in team-based interdisciplinary re-
2 search and problem solving, and for providing them
3 with the many additional skills, such as communica-
4 tion skills, needed to thrive in diverse STEM ca-
5 reers; and

6 (2) the Integrative Graduate Education and Re-
7 search Traineeship program is no less valuable to
8 the preparation and support of graduate students
9 than the Foundation's Graduate Research Fellow-
10 ship program.

11 (b) EQUAL TREATMENT OF IGERT AND GRF.—Be-
12 ginning in fiscal year 2011, the Director shall increase or,
13 if necessary, decrease funding for the Foundation's Inte-
14 grative Graduate Education and Research Traineeship
15 program (or any program by which it is replaced) at least
16 at the same rate as it increases or decreases funding for
17 the Graduate Research Fellowship program.

18 (c) SUPPORT FOR GRADUATE STUDENT RESEARCH
19 FROM THE RESEARCH ACCOUNT.—For each of the fiscal
20 years 2011 through 2015, at least 50 percent of the total
21 Foundation funds allocated to the Integrative Graduate
22 Education and Research Traineeship program and the
23 Graduate Research Fellowship program shall come from
24 funds appropriated for Research and Related Activities.

1 (d) COST OF EDUCATION ALLOWANCE FOR GRF
2 PROGRAM.—Section 10 of the National Science Founda-
3 tion Act of 1950 (42 U.S.C. 1869) is amended—

4 (1) by inserting “(a)” before “The Foundation
5 is authorized”; and

6 (2) by adding at the end the following new sub-
7 section:

8 “(b) The Director shall establish for each year the
9 amount to be awarded for scholarships and fellowships
10 under this section for that year. Each such scholarship
11 and fellowship shall include a cost of education allowance
12 of at least the lesser of \$12,000 or the cost of education
13 at the institution in which the scholarship or fellowship
14 recipient is matriculated, subject to any restrictions on the
15 use of cost of education allowance as determined by the
16 Director.”.

17 **SEC. 302. POSTDOCTORAL FELLOWSHIP IN STEM EDU-**
18 **CATION RESEARCH.**

19 (a) IN GENERAL.—The Director shall establish
20 postdoctoral fellowships in STEM education research to
21 provide recent doctoral degree graduates in STEM fields
22 with the necessary skills to assume leadership roles in
23 STEM education research, program development, and
24 evaluation in our Nation’s diverse educational institutions.

25 (b) AWARDS.—

1 (1) DURATION.—Fellowships may be awarded
2 under this section for a period of up to 24 months
3 in duration, renewable for an additional 12 months.
4 The Director shall establish criteria for eligibility for
5 renewal of the fellowship.

6 (2) STIPEND.—The Director shall determine
7 the amount of the award for a fellowship, which
8 shall include a stipend and a research allowance, and
9 may include an educational allowance.

10 (3) LOCATION.—A fellowship shall be awarded
11 for research at any institution of higher education
12 that offers degrees in fields supported by the Foun-
13 dation, or at any institution or organization that the
14 Director determines is eligible for education research
15 grants from the Foundation.

16 (4) NUMBER OF AWARDS.—The Director may
17 award up to 20 new fellowships per year.

18 (c) RESEARCH.—Fellowships under this section shall
19 be awarded for research on STEM education at any edu-
20 cational level, including grades K–12, undergraduate,
21 graduate, and general public education, in both formal and
22 informal settings. Research topics may include—

23 (1) learning processes;

24 (2) knowledge transfer, including curriculum
25 development;

1 (3) uses of technology as teaching and learning
2 tools;

3 (4) integrating STEM fields; and

4 (5) student assessment and program evaluation.

5 (d) ELIGIBILITY.—To be eligible for a fellowship
6 under this section, an individual must—

7 (1) be a United States citizen or national, or an
8 alien lawfully admitted to the United States for per-
9 manent residence, at the time of application; and

10 (2) have received a doctoral degree in one of the
11 STEM fields supported by the Foundation within 3
12 years prior to the fellowship application deadline.

13 **SEC. 303. ROBERT NOYCE TEACHER SCHOLARSHIP PRO-**
14 **GRAM.**

15 (a) SECTION 10 AMENDMENTS.—Section 10 of the
16 National Science Foundation Authorization Act of 2002
17 (42 U.S.C. 1862n–1) is amended—

18 (1) in subsection (c)(4), by striking “Service re-
19 quired under this paragraph shall be performed in a
20 high-need local educational agency.”; and

21 (2) in subsection (c), by adding at the end a
22 new paragraph as follows:

23 “(5) EXCEPTION.—The period of service obliga-
24 tion under paragraph (4) shall be reduced by 1 year
25 for scholarship recipients whose service is performed

1 in a high-need local educational agency. The Direc-
2 tor shall establish and maintain a central clearing-
3 house of information on teaching opportunities avail-
4 able in high-need local educational agencies through-
5 out the United States, which shall be made available
6 to individuals having a service obligation under this
7 section.”.

8 (b) SECTION 10A AMENDMENTS.—Section 10A of
9 the National Science Foundation Authorization Act of
10 2002 (42 U.S.C. 1862n–1a) is amended in subsection
11 (h)(1) by striking “50” and inserting “30”.

12 **SEC. 304. INSTITUTIONS SERVING PERSONS WITH DISABIL-**
13 **ITIES.**

14 For the purposes of the activities and programs sup-
15 ported by the Foundation, institutions of higher education
16 chartered to serve large numbers of students with disabil-
17 ities, including Gallaudet University, Landmark College,
18 and the National Technical Institute for the Deaf, shall
19 be designated as minority-serving institutions.

20 **SEC. 305. INSTITUTIONAL INTEGRATION.**

21 (a) INNOVATION THROUGH INSTITUTIONAL INTE-
22 GRATION.—The Director shall award grants for the insti-
23 tutional integration of projects funded by the Foundation
24 with a focus on education or broadening participation in
25 STEM by underrepresented groups for the purpose of in-

1 creasing collaboration and coordination across funded
2 projects and institutions and expanding the impact of such
3 projects within and among institutions of higher education
4 in an innovative and sustainable manner.

5 (b) PROGRAM ACTIVITIES.—The program under this
6 section shall support integrative activities that involve the
7 strategic and innovative combination of Foundation-fund-
8 ed projects and that provide for—

9 (1) additional opportunities to increase the re-
10 cruitment, retention, and degree attainment of
11 underrepresented groups in STEM disciplines;

12 (2) the inclusion of programming, practices,
13 and policies that encourage the integration of edu-
14 cation and research;

15 (3) seamless transitions from one educational
16 level to another; and

17 (4) other activities that expand and deepen the
18 impact of Foundation-funded projects with a focus
19 on education or broadening participation in STEM
20 by underrepresented groups and enhance their sus-
21 tainability.

22 (c) REVIEW CRITERIA.—In selecting recipients of
23 grants under this section, the Director shall consider at
24 a minimum—

1 (1) the extent to which the proposed project ad-
2 dresses the goals of project and program integration
3 and adds value to the existing funded projects;

4 (2) the extent to which there is a proven record
5 of success for the existing projects on which the pro-
6 posed integration project is based; and

7 (3) the extent to which the proposed project ad-
8 dresses the modification of programming, practices,
9 and policies necessary to achieve the purpose de-
10 scribed in subsection (a).

11 (d) **PRIORITY.**—In selecting recipients of grants
12 under this section, the Director shall give priority to pro-
13 posals for which a senior institutional administrator, in-
14 cluding a dean or other administrator of equal or higher
15 rank, serves as the principal investigator.

16 **SEC. 306. POSTDOCTORAL RESEARCH FELLOWSHIPS.**

17 (a) **IN GENERAL.**—The Director shall establish a
18 Foundation-wide postdoctoral research fellowship pro-
19 gram, to award competitive, merit-based postdoctoral re-
20 search fellowships in any field of research supported by
21 the Foundation.

22 (b) **DURATION AND AMOUNT.**—Fellowships may be
23 awarded under this section for a period of up to 3 years
24 in duration. The Director shall determine the amount of
25 the award for a fellowship, which shall include a stipend

1 and a research allowance, and may include an educational
2 allowance.

3 (c) ELIGIBILITY.—To be eligible to receive a fellow-
4 ship under this section, an individual—

5 (1) must be a United States citizen or national,
6 or an alien lawfully admitted to the United States
7 for permanent residence, at the time of application;

8 (2) must have received a doctoral degree in any
9 field of research supported by the Foundation within
10 3 years prior to the fellowship application deadline,
11 or will complete a doctoral degree no more than 1
12 year after the application deadline; and

13 (3) may not have previously received funding as
14 the principal investigator of a research grant from
15 the Foundation, unless such funding was received as
16 a graduate student.

17 (d) PRIORITY.—In evaluating applications for fellow-
18 ships under this section, the Director shall give priority
19 to applications that include—

20 (1) proposals for interdisciplinary research; or

21 (2) proposals for high-risk, high-reward re-
22 search.

23 (e) ADDITIONAL CONSIDERATIONS.—In evaluating
24 applications for fellowships under this section, the Direc-
25 tor shall give consideration to the goal of promoting the

1 participation of individuals identified in section 33 or 34
2 of the Science and Engineering Equal Opportunities Act
3 (42 U.S.C. 1885a or 1885b).

4 (f) NONSUBSTITUTION.—The fellowship program au-
5 thorized under this section is not intended to replace or
6 reduce support for postdoctoral research through existing
7 programs at the Foundation.

8 **SEC. 307. BROADENING PARTICIPATION TRAINING AND**
9 **OUTREACH.**

10 The Director shall provide education and training—

11 (1) to Foundation staff and grant proposal re-
12 view panels on effective mechanisms and tools for
13 broadening participation in STEM by underrep-
14 resented groups, including reviewer selection and
15 mitigation of implicit bias in the review process; and

16 (2) to Foundation staff on related outreach ap-
17 proaches.

○