

117TH CONGRESS
1ST SESSION

H. R. 2342

To direct the Secretary of Defense to carry out a grant program to support the establishment of a nationwide training program in simulation technology, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 1, 2021

Mr. RESCENTHALER (for himself and Ms. KUSTER) introduced the following bill; which was referred to the Committee on Armed Services

A BILL

To direct the Secretary of Defense to carry out a grant program to support the establishment of a nationwide training program in simulation technology, 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 “Simulation and Inno-
5 vation Machine for Up-Leveling the American Technology
6 Economy Act” or the “SIMULATE Act”.

1 **SEC. 2. PURPOSE.**

2 The purpose of this Act is to ensure the continued
3 leadership of the United States in simulation technology
4 and its applications by promoting the development and ex-
5 pansion of an American workforce skilled in the use of
6 simulation technology in order to—

7 (1) facilitate technology innovation and private
8 sector commercialization;

9 (2) meet economic and national security goals;

10 (3) increase the competitiveness of small- and
11 medium-sized United States businesses in the global
12 market;

13 (4) increase the competitiveness of large compa-
14 nies by increasing the efficiency of their small- and
15 medium-sized suppliers;

16 (5) expand the number of engineers and sci-
17 entists in the market and entering the market with
18 expertise in simulation technology;

19 (6) increase the number of United States small-
20 and medium-sized businesses that use simulation
21 technology as part of their standard operations;

22 (7) promote the increased use of simulation
23 technology, including the use of such technology by
24 individuals identified in sections 33 and 34 of the
25 Science and Engineering Equal Opportunities Act
26 (42 U.S.C. 1885a, 1885b); and

1 (8) promote economic upward mobility by pro-
2 viding eligible students with greater access to higher
3 paying jobs.

4 **SEC. 3. GRANT FOR TRAINING AND CERTIFICATION PRO-**
5 **GRAM IN SIMULATION TECHNOLOGY.**

6 (a) IN GENERAL.—From amounts made available
7 under subsection (f), the Secretary of Defense shall award
8 a grant, on a competitive basis, to an eligible entity to
9 enable such entity to establish and carry out a nationwide
10 training and certification program in simulation tech-
11 nology as described in subsection (d).

12 (b) CONSULTATION.—In carrying out the grant pro-
13 gram under this section, the Secretary of Defense shall
14 consult with the heads of such other departments and
15 agencies of the Federal government as the Secretary de-
16 termines appropriate.

17 (c) APPLICATION.—

18 (1) IN GENERAL.—To be considered for a grant
19 under this section, an eligible entity shall submit an
20 application to the Secretary of Defense at such time,
21 in such manner, and containing such information as
22 the Secretary may require.

23 (2) CONTENTS.—As part of the application sub-
24 mitted under paragraph (1), an eligible entity shall
25 demonstrate to the satisfaction of the Secretary of

1 Defense that the training program funded with the
2 grant will have the capacity to graduate an average
3 of at least 10,000 students per year during the
4 grant period.

5 (d) USES OF FUNDS.—An eligible entity that receives
6 a grant under this section shall use the grant to carry
7 out the following activities:

8 (1) The entity shall establish and implement a
9 national training and certification program in sim-
10 ulation technology that—

11 (A) provides training to eligible students
12 the field of simulation technology, including
13 training in—

14 (i) simulation software, simulation ap-
15 plications, and adjacent or related software
16 technologies;

17 (ii) the use of simulation technology
18 to simulate structures, fluids, electrical,
19 materials, optics, power, and other relative
20 subjects determined by the Secretary; and

21 (iii) the use state-of-the-art commer-
22 cial-off-the-shelf simulation software;

23 (B) is accessible to eligible students in
24 each State;

1 (C) is accredited by a nationally recognized
2 accrediting agency or association;

3 (D) can be completed by an eligible stu-
4 dent in as little as three months;

5 (E) enables a student who successfully
6 completes the program to receive a nationally-
7 recognized certification in simulation tech-
8 nology; and

9 (F) may be replicated and implemented by
10 other entities after the expiration of the grant
11 period.

12 (2) In carrying out the program described in
13 paragraph (1), the entity shall—

14 (A) develop a comprehensive curriculum in
15 simulation technology;

16 (B) prioritize the enrollment of eligible stu-
17 dents who can demonstrate that participation in
18 the training program will enhance their employ-
19 ment prospects or career development;

20 (C) use commercial-off-the-shelf simulation
21 software to establish a set of standard simula-
22 tion tools that support a broad range of simula-
23 tion activities at each stage of the design proc-
24 ess including the stages of ideation, detailed de-

1 sign, manufacturing, and operations and
2 sustainment;

3 (D) provide participating students with
4 tools of the trade, including skills and access to
5 software tools, that students can take with
6 them to future jobs; and

7 (E) incorporate industry perspectives on
8 science and engineering simulation workforce
9 development, including by leveraging relevant
10 industry knowledge and resources.

11 (e) DURATION.—

12 (1) IN GENERAL.—A grant under this section
13 shall be made for a period of five years.

14 (2) REAPPLICATION.—An eligible entity that re-
15 ceived a grant under this section may reapply for
16 such a grant for one or more additional periods of
17 five years. The Secretary of Defense shall consider
18 such reapplications on a competitive, merit-reviewed
19 basis together with applications received from other
20 eligible entities for the applicable grant period.

21 (3) TERMINATION.—The Secretary of Defense
22 may terminate a grant made under this section dur-
23 ing the grant period if the Secretary determines that
24 the recipient of the grant is not performing ade-
25 quately.

1 (f) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated to carry out this section
3 \$75,000,000 for fiscal years 2021 through 2025.

4 **SEC. 4. DEFINITIONS.**

5 In this Act:

6 (1) The term “adjacent or related software
7 technologies” means software for product develop-
8 ment and testing that may be used in conjunction
9 with simulation technology, including software for
10 design and manufacturing, data management, pro-
11 duction optimization, and product life-cycle manage-
12 ment.

13 (2) The term “eligible entity” means—

14 (A) a commercial entity;

15 (B) an institution of higher education;

16 (C) a nonprofit organization; or

17 (D) a consortium composed of one or more
18 of the entities described in subparagraphs (A)
19 through (C).

20 (3) The term “eligible student” means an indi-
21 vidual who is—

22 (A) enrolled in an institution of higher
23 education; or

1 (B) has a job in a field for which simula-
2 tion technology may be relevant, as determined
3 by the Secretary of Defense.

4 (4) The term “institution of higher education”
5 has the meaning given that term in section 101(a)
6 of the Higher Education Act of 1965 (20 U.S.C.
7 1001(a)).

8 (5) The term “nationally recognized accrediting
9 agency or association” means an accrediting agency
10 or association that the Secretary of Defense deter-
11 mines to be reliable authority as to the quality of the
12 training offered by an eligible entity.

13 (6) The term “simulation technology” means
14 computer technology and software designed to close-
15 ly approximate physical phenomena using mathe-
16 matical formulas for the purpose of product develop-
17 ment and testing, including the simulation of struc-
18 tures, fluids, electrical, materials, optics and power.

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