

# Calendar No. 639

116TH CONGRESS 2D SESSION S. 4286

[Report No. 116-332]

To authorize appropriations for offsetting the costs related to reductions in research productivity resulting from the coronavirus pandemic.

### IN THE SENATE OF THE UNITED STATES

July 22, 2020

Mr. Markey (for himself, Mr. Tillis, Mr. Peters, Mr. Gardner, Ms. Warren, and Ms. Collins) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

DECEMBER 15, 2020

Reported by Mr. WICKER, with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

# A BILL

To authorize appropriations for offsetting the costs related to reductions in research productivity resulting from the coronavirus pandemic.

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

### SECTION 1. SHORT TITLE.

- 2 This Act may be eited as the "Research Investment
- 3 to Spark the Economy Act" or the "RISE Act".
- 4 SEC. 2. FINDINGS.

- 5 Congress finds the following:
- 6 (1) Agencies provided Federal research grantees
  7 flexibility during the pandemic to support graduate
  8 students, postdocs, principal investigators, and tech9 nical support staff.
  - (2) Agencies will need to provide current Federal research grants extensions to cover time lost in research labs and in the field that will impact the completion of that agency's research missions and priorities. Additionally, agencies allowed federally funded labs to donate necessary equipment, like personal protective equipment among others, to support hospitals and first responders, which will need to be re-purchased and will create additional expenses to Federal contracts.
  - (3) The need to ensure the United States sustains the critical human infrastructure that undergirds the United States research enterprise, which has created a longstanding government-university partnership which has made America the global leader in innovation, strengthening the health of our Nation's citizens, economy, and national security.

- (4) While the Federal Government has made significant investments in new research to address COVID-19, existing research has been slowed down or stopped due to COVID-19 modified operations of campuses and laboratories.
  - (5) Given the modified operations of many university-based and national laboratories due to the pandemic, Congress is concerned that the people who comprise the research workforce—graduate students, postdocs, principal investigators, and technical support staff—and the future health and strength of the United States research enterprise and manufacturing and technology economics, among others, are at risk.
  - (6) While our Nation's research capacity has demonstrated it can absorb shocks and pivot to address immediate national threats, the scale of this pandemic is still growing and unprecedented in duration and impact.
  - (7) Without funding, future innovations in areas such as quantum, artificial intelligence, robotics, computing, 5G, space exploration, digital agriculture, cancer, and aging will be forestalled while the agencies are forced to use future appropriations for new research, meant to create new knowledge

- leading to the next generation of discoveries, to
  cover existing grants. The Nation must innovate to
  launch the next 50 years of unparalleled economic
  leadership and be prepared for any future
  pandemics.
- 6 (8) Therefore, Congress believes it is vital that 7 the Federal Government take measures to help re-8 lieve the strain agencies will be forced to face and 9 sustain the strength of our Nation's ability to re-10 main a global leader in an increasingly competitive 11 global research environment, as other countries con-12 tinue to make disproportionately large investments 13 in key research areas.

### 14 SEC. 3. DEFINITIONS.

- 15 In this Act:
- 16 (1) FEDERAL SCIENCE AGENCY.—The term
  17 "Federal science agency" means any agency (as de18 fined in section 551 of title 5, United States Code)
  19 with at least \$50,000,000 in basic and applied re20 search obligations in fiscal year 2020.
  - (2) RESEARCH INSTITUTION.—The term "research institution" means an institution of higher education (as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a))) or

21

22

23

1	a nonprofit entity that conducts federally funded re-
2	search.
3	(3) NATIONAL LABORATORY.—The term "Na-
4	tional laboratory" has the meaning given the term in
5	section 2 of the Energy Policy Act of 2005 (42
6	<del>U.S.C.</del> 15801).
7	SEC. 4. USE OF FUNDS.
8	(a) Allowable Uses.—A Federal science agency
9	may use funds authorized under this Act to—
10	(1) provide supplemental funding to extend the
11	duration of a grant to a research institution or Na-
12	tional laboratory that was awarded prior to the date
13	of enactment of this Act, or to expand the purposes
14	of such a grant in order to—
15	(A) enable a graduate student or post-doc-
16	toral researcher to complete work that was dis-
17	rupted by COVID-19;
18	(B) enable a principal investigator to com-
19	plete work that was disrupted by COVID-19;
20	(C) extend the training of a graduate stu-
21	dent or the employment of a post-doctoral re-
22	searcher on an ongoing research project for up
23	to 2 years because of the disruption of the job
24	market due to COVID-19;

1	(D) allow for the use of laboratory ani-
2	mals, reagents, equipment, or other items re-
3	quired for research funded by a grant that was
4	awarded prior to the date of enactment of this
5	Act, but need to be replaced, refurbished, or
6	otherwise made usable after disruption because
7	of COVID-19;
8	(E) reconfigure laboratories, restart equip-
9	ment and disrupted research, and other activi-
10	ties necessary to safely resume on-site research
11	activities in laboratories that were temporarily
12	elosed or redirected to COVID-19 response;
13	and
14	(F) facilitate other competitively awarded
15	research and training activities that have been
16	disrupted by COVID-19;
17	(2) provide supplemental funding through exist-
18	ing competitively awarded cooperative agreements
19	and contracts to cover the increased costs of con-
20	struction of scientific facilities and equipment that
21	have been delayed because of COVID-19; and
22	(3) award grants and cooperative agreements to
23	institutions of higher education to conduct research

on the behavioral, social, or economic effects of

- 1 COVID-19 and the responses to the disease, or on
- 2 the effectiveness of such responses.
- 3 (b) AWARDS.—Each Federal science agency author-
- 4 ized to receive funds under this Act shall develop proce-
- 5 dures to award such funds and shall award such funds
- 6 as rapidly as possible.
- 7 (e) Timing.—Funds authorized under this Act shall
- 8 be awarded during fiscal years 2020 and 2021 and funds
- 9 so awarded shall remain available for expenditure for up
- 10 to 2 years.

### 11 SEC. 5. REGULATIONS.

- 12 Until such time as a research institution has deter-
- 13 mined it can safely reopen a research laboratory funded
- 14 by a Federal science agency, such agency shall continue
- 15 to interpret regulations in a manner consistent with—
- 16 (1) the memorandum issued by the Office of
- 17 Management and Budget on March 19, 2020, enti-
- 18 tled "Administrative Relief for Recipients and Appli-
- 19 cants of Federal Financial Assistance Directly Im-
- 20 pacted by the Novel Coronavirus (COVID-19) due
- 21 to Loss of Operations"; and
- 22 (2) the memorandum issued by the Office of
- 23 Management and Budget on March 19, 2020, enti-
- 24 tled "Managing Federal Contract Performance

- 1 Issues Associated with the Novel Coronavirus
- 2 (COVID-19)".
- 3 SEC. 6. AUTHORIZATIONS OF APPROPRIATIONS.
- 4 (a) DEPARTMENT OF AGRICULTURE.—There is au-
- 5 thorized to be appropriated to the Department of Agri-
- 6 culture for fiscal year 2020—
- 7 (1) \$300,000,000 to fund activities under sec-
- 8 tion 4; and
- 9 (2) \$80,000,000 to earry out cooperative exten-
- sion and education programs in response to exigent
- 11 circumstances created by the COVID-19 pandemic.
- 12 (b) DEPARTMENT OF COMMERCE.—There is author-
- 13 ized to be appropriated \$650,000,000 to the Department
- 14 of Commerce for fiscal year 2020 to fund activities under
- 15 section 4 of this Act, of which at least \$350,000,000 shall
- 16 be for use by the National Oceanic and Atmospheric Ad-
- 17 ministration and at least \$300,000,000 shall be for the
- 18 National Institute of Standards and Technology.
- 19 (c) DEPARTMENT OF DEFENSE.—There is author-
- 20 ized to be appropriated \$3,000,000,000 to the Depart-
- 21 ment of Defense for fiscal year 2020 to fund activities
- 22 under section 4.
- 23 (d) DEPARTMENT OF EDUCATION.—There is author-
- 24 ized to be appropriated \$200,000,000 to the Department

- 1 of Education for fiscal year 2020 to fund activities under
- 2 section 4 for the Institute for Education Sciences.
- 3 (e) Department of Energy.—There is authorized
- 4 to be appropriated \$5,000,000,000 to the Department of
- 5 Energy for fiscal year 2020 to fund activities under sec-
- 6 tion 4, of which at least \$3,000,000,000 shall be for use
- 7 by the Office of Science, at least \$900,000,000 shall be
- 8 for Energy Efficiency and Renewable Energy, at least
- 9 \$450,000,000 shall be for Nuclear Energy, at least
- 10 \$300,000,000 shall be for Fossil Research and Develop-
- 11 ment, at least \$150,000,000 shall be for ARPA-E, and
- 12 at least \$100,000,000 shall be for the Office of Electricity.
- 13 (f) DEPARTMENT OF INTERIOR.—There is authorized
- 14 to be appropriated \$300,000,000 to the Department of In-
- 15 terior for fiscal year 2020 to fund activities under section
- 16 4 for the United States Geological Survey.
- 17 (g) DEPARTMENT OF HEALTH AND HUMAN SERV-
- 18 ICES.—There is authorized to be appropriated
- 19 \$10,000,000,000 to the Department of Health and
- 20 Human Services for fiscal year 2020 to fund activities
- 21 under section 4 for the National Institutes of Health.
- 22 (h) NASA.—There is authorized to be appropriated
- 23 \$2,000,000,000 to the National Aeronautics and Space
- 24 Administration for fiscal year 2020 to fund activities
- 25 under section 4.

1 (i) NATIONAL SCIENCE FOUNDATION.—There is authorized to be appropriated \$3,000,000,000 to the Na-3 tional Science Foundation for fiscal year 2020 to fund activities under section 4. 5 (i) Environmental Protection Agency.—There is authorized to be appropriated \$200,000,000 to the Environmental Protection Agency for fiscal year 2020 to 8 fund activities under section 4. SECTION 1. SHORT TITLE. 10 This Act may be cited as the "Research Investment to Spark the Economy Act of 2020" or the "RISE Act of 12 2020". 13 SEC. 2. FINDINGS. 14 Congress finds the following: 15 (1) Federal agencies have provided Federal re-16 search awardees flexibility during the Coronavirus 17 Disease 2019 (COVID-19) pandemic to support grad-18 uate and undergraduate students, post-doctoral stu-19 dents, principal investigators, and administrative 20 and technical support staff. 21 (2) Federal agencies may need to provide current 22 Federal research awardees extensions to cover time 23 lost in awardee facilities and in the field that will af-24 fect the completion of that agencies' research missions

and priorities. Additionally, agencies have allowed

- federally funded laboratories to donate necessary equipment, such as personal protective equipment, to support hospitals and first responders, which may need to be repurchased and will create additional expenses under Federal contracts, grants, and cooperative agreements.
  - (3) The United States needs to sustain the critical human infrastructure that undergirds the United States research enterprise, which has created a long-standing government-university partnership, that has made the United States the global leader in innovation, strengthening the health of citizens of the United States, the economy of the United States, and national security.
  - (4) While the Federal Government has made significant investments in new biomedical research to address COVID-19, existing research has been slowed down or stopped due to COVID-19-modified operations of campuses and laboratories.
  - (5) Given the modified operations of many university-based and national laboratories due to the pandemic, Congress is concerned that the people who comprise the research workforce (for example, graduate and undergraduate students, post-doctoral students, principal investigators, and administrative

- and technical support staff) and the future health and strength of the United States research enterprise and manufacturing and technology economies, among others, are at risk.
  - (6) While the research capacity of the United States has demonstrated that it can absorb shocks and pivot to address immediate national threats, the scale of the COVID-19 pandemic is still growing and unprecedented in duration and effect.
  - (7) Without additional funding, future innovations in areas such as quantum, artificial intelligence, robotics, computing, advanced wireless, space exploration, digital agriculture, earth system observation and prediction, health, and science, technology, engineering, and mathematics education infrastructure will be forestalled as agencies are forced to use future appropriations intended for new research to cover existing awards. The United States must innovate to launch the next 50 years of unparalleled economic leadership and be prepared for any future pandemics.
  - (8) It is vital that the Federal Government take measures to help relieve the strain that Federal agencies will be forced to face and sustain the strength of the ability of the United States to remain a global

1	leader in an increasingly competitive global research
2	environment, as other countries continue to make dis-
3	proportionately large investments in key research
4	areas.
5	SEC. 3. AWARD AND MODIFICATION OF GRANTS, COOPERA-
6	TIVE AGREEMENTS AND OTHER FINANCIAL
7	ASSISTANCE FOR INSTITUTIONS OF HIGHER
8	EDUCATION, RESEARCH LABORATORIES, AND
9	OTHER RESEARCH INSTITUTIONS TO AD-
10	DRESS MATTERS RELATING TO DISRUPTION
11	CAUSED BY COVID-19.
12	(a) Definitions.—In this section:
13	(1) AWARD.—The term "award" includes a
14	grant, cooperative agreement, or other financial as-
15	sistance.
16	(2) COVID-19 Public Health Emergency.—
17	The term "COVID-19 public health emergency"
18	means the public health emergency declared by the
19	Secretary of Health and Human Services under sec-
20	tion 319 of the Public Health Service Act (42 U.S.C.
21	247d) on January 31, 2020, with respect to the
22	Coronavirus Disease 2019 (COVID-19).
23	(3) Research institution.—The term "re-
24	search institution" means the following:

1	(A) An institution of higher education (as
2	defined in section 101(a) of the Higher Edu-
3	cation Act of 1965 (20 U.S.C. 1001(a))).
4	(B) A Tribal College or University (as de-
5	fined in section 316 of the Higher Education Act
6	of 1965 (20 U.S.C. 1059c)).
7	(C) A nonprofit entity that conducts Feder-
8	ally funded research.
9	(4) Research Laboratory.—The term "Re-
10	search Laboratory" means the following:
11	(A) A National Laboratory (as defined in
12	section 2 of the Energy Policy Act of 2005 (42
13	U.S.C. 15801)).
14	(B) A Federally-Funded Research and De-
15	velopment Center for purposes of section 35.017
16	of title 48, Code of Federal Regulations.
17	(b) AUTHORITY.—
18	(1) In general.—Each officer specified in
19	paragraph (2) may exercise the authorities described
20	in paragraph (3).
21	(2) Officers.—The officers specified in this
22	paragraph are as follows:
23	(A) The Secretary of Commerce, acting
24	through the Administrator of the National Oce-
25	anic and Atmospheric Administration and the

1	Director of the National Institute of Standards
2	and Technology.
3	(B) The Secretary of Agriculture.
4	(C) The Secretary of Defense.
5	(D) The Secretary of Education.
6	(E) The Secretary of Energy, acting for the
7	Department of Energy (with respect to Energy
8	Efficiency and Renewable Energy, Nuclear En-
9	ergy, and Fossil Research and Development) and
10	through the Office of Science, the Advanced Re-
11	search Projects Agency-Energy (ARPA-E), and
12	the Office of Electricity.
13	(F) The Secretary of Interior, acting
14	through the Director of the United States Geo-
15	logical Survey.
16	(G) The Secretary of Health, acting through
17	the Director of the National Institutes of Health.
18	(H) The Secretary of Transportation.
19	(I) The Administrator of the National Aero-
20	nautics and Space Administration.
21	(J) The Administrator of the Environ-
22	mental Protection Agency.
23	(K) The Director of the National Science
24	Foundation

1	(3) AUTHORITIES.—The officers specified in
2	paragraph (1) may—
3	(A) provide supplemental funding to extend
4	the duration of an award disrupted because of
5	the COVID-19 public health emergency to a re-
6	search institution, Research Laboratory, or indi-
7	vidual that was awarded before the date of the
8	enactment of this Act, or to expand the purposes
9	of such an award, in order to—
10	(i) enable a post-secondary student or
11	post-doctoral researcher to complete work;
12	(ii) enable research scientists, technical
13	staff, research associates, and principal in-
14	vestigators to complete work;
15	(iii) extend the training of a post-sec-
16	ondary student, or the employment of a
17	post-doctoral researcher. on an ongoing re-
18	search project for up to 2 years because of
19	the disruption of the job market;
20	(iv) create research opportunities for
21	up to 2 years for graduate students and
22	post-doctoral researchers;
23	(v) replace, refurbish, or otherwise
24	make usable laboratory animals, reagents,

1	equipment, or other items required for re-
2	search;
3	(vi) facilitate other research (including
4	field work), training, and ongoing construc-
5	tion activities, including at institutions
6	that are disproportionately affected by the
7	COVID-19 public health emergency (such
8	as minority-serving institutions and 2-year
9	$institutions\ of\ higher\ education);$
10	(vii) enable experimental field cam-
11	paigns and maintenance of field infrastruc-
12	ture, including through replacement of dis-
13	rupted experimental data to enable comple-
14	tion of impacted research;
15	(viii) support training in online course
16	delivery and virtual research experiences
17	that will improve quality and access needed
18	to continue undergraduate, graduate, and
19	$post-doctoral\ training;$
20	(B) issue awards to research institutions,
21	Research Laboratories, or other individuals to
22	conduct research on the effects of the Coronavirus
23	Disease 2019 and future potential pandemics, on
24	the effects and effectiveness of responses to such

1	diseases, and on improving the prediction of the
2	possible courses of such pandemics; and
3	(C) provide flexibility on an award for
4	funds made available to an agency, by any prior
5	or subsequent Act, by modifying the terms and
6	conditions of the award with a research institu-
7	tion, Research Laboratory, or individual due to
8	facility closures or other limitations during the
9	COVID-19 public health emergency.
10	(4) Modifications.—The modifications author-
11	ized by paragraph (3)(C) include, but are not limited
12	to—
13	(A) the provision of supplemental funding
14	to extend the duration of the award concerned; or
15	(B) flexibility on the allowable expenses
16	under such award.
17	(c) Procedures.—The officers specified in subsection
18	(b)(2) shall each establish procedures to carry out subsection
19	<i>(b)</i> .
20	(d) Expedited Awards.—Awards under subsection
21	(b) shall be issued as expeditiously as possible.
22	(e) Authorizations of Appropriations.—
23	(1) Department of commerce.— There is au-
24	thorized to be appropriated for fiscal year 2021 for

1	the Department of Commerce, \$450,000,000 to carry
2	out subsection (b), of which—
3	(A) \$300,000,000 shall be for use by the Na-
4	$tional\ Oceanic\ and\ Atmospheric\ Administration;$
5	and
6	(B) \$150,000,000 shall be for use by the Na-
7	tional Institute of Standards and Technology.
8	(2) Department of agriculture.—There is
9	authorized to be appropriated for fiscal year 2021 for
10	the Department of Agriculture, \$380,000,000 to carry
11	out subsection (b).
12	(3) Department of Defense.—There is au-
13	thorized to be appropriated for fiscal year 2021 for
14	the Department of Defense, \$3,000,000,000 to carry
15	out subsection (b).
16	(4) Department of Education.—There is au-
17	thorized to be appropriated for fiscal year 2021 for
18	the Department of Education, \$200,000,000 to carry
19	out subsection (b), which shall be for use by the Insti-
20	tute for Education Sciences.
21	(5) Department of energy.—There is author-
22	ized to be appropriated for fiscal year 2021 for the
23	Department of Energy, \$5,000,000,000 to carry out
24	subsection (b), of which—

1	(A) not less than $$3,000,000,000$ shall be for
2	use by the Office of Science;
3	(B) not less than \$900,000,000 shall be for
4	Energy Efficiency and Renewable Energy;
5	(C) not less than \$450,000,000 shall be for
6	$Nuclear\ Energy;$
7	(D) not less than \$300,000,000 shall be for
8	Fossil Research and Development;
9	(E) not less than \$150,000,000 shall be for
10	use by the Advanced Research Projects Agency—
11	$Energy; \ and$
12	(F) not less than \$100,000,000 shall be for
13	use by the Office of Electricity.
14	(6) Department of interior.—There is au-
15	thorized to be appropriated for fiscal year 2021 for
16	the Department of Interior, \$300,000,000 to carry out
17	subsection (b), which shall be for use by the United
18	States Geological Survey.
19	(7) Department of Health and Human Serv-
20	ICES.—There is authorized to be appropriated for fis-
21	cal year 2021 for the Department of Health and
22	Human Services, \$10,000,000,000 to carry out sub-
23	section (b), which shall be for use by the National In-
24	stitutes of Health.

1	(8) Department of transportation.—There
2	is authorized to be appropriated for fiscal year 2021
3	for the Department of Transportation, \$300,000,000
4	to carry out subsection (b), of which not less than
5	\$130,000,000 shall be for use by the Federal Aviation
6	Administration.
7	(9) National Aeronautics and Space admin-
8	ISTRATION.—There is authorized to be appropriated
9	for fiscal year 2021 for the National Aeronautics and
10	Space Administration, \$2,000,000,000 to carry out
11	subsection (b).
12	(10) Environmental protection agency.—
13	There is authorized to be appropriated for fiscal year
14	2021 for the Environmental Protection Agency,
15	\$200,000,000 to carry out subsection (b).
16	(11) National Science foundation.—There is
17	authorized to be appropriated for fiscal year 2021 for
18	the National Science Foundation, \$3,000,000,000 to
19	carry out subsection (b).
20	(12) Availability of funds for administra-
21	TION.—
22	(A) In general.—Amounts authorized to
23	be appropriated by this subsection may be used
24	for the payment of indirect costs of Federal
25	awards under subsection (b), up to the limit oth-

1	erwise allowable by law and subject to the re-
2	quirements of part 200 of title 2, Code of Federal
3	Regulations.
4	(B) Limitation.—Not more than 5 percent
5	of each of the amounts appropriated pursuant to
6	this subsection may be used for administration
7	of awards under subsection (b).
8	(13) Duration of Availability.—Amounts au-
9	thorized to be appropriated by this subsection shall be
10	available for the purposes described in this subsection
11	through fiscal year 2021.

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# A BILL

To authorize appropriations for offsetting the costs related to reductions in research productivity resulting from the coronavirus pandemic.

DECEMBER 15, 2020

Reported with an amendment