

H.R. 210 helps develop better practices for accessing and using computer-based and online STEM education courses. It will help schools combine online STEM education with hands-on training and apprenticeships to give students both theoretical and practical understanding of math and science skills.

The bill will also take steps to address one of the key obstacles to rural STEM education, a lack of broadband access. Of the 21 million Americans who lack access to broadband, the majority live in rural areas. With the increase in online learning, we need to prioritize connectivity for all students.

This bill directs the National Institute of Standards and Technology to establish a prize competition to stimulate innovations in technologies to deploy broadband connectivity to underserved rural communities.

It also establishes a working group to set key research priorities for improving broadband access so rural communities can enjoy the same connectedness as the rest of the country.

This bill includes a number of provisions to help provide rural educators with the tools they need to be successful, both in the classroom and online. It supports opportunities for rural educators to enhance their own STEM education, such as training in computer science or research opportunities at Federal labs and universities. These experiences will provide rural educators with high-quality STEM skills they can take back to the classrooms and pass on to their students.

Lastly, the major focus of this bill is broadening the participation of rural students in STEM. One way we can do this is by emphasizing place-based learning, which gives students direct access to the STEM knowledge present in their communities and local environment.

Place-based learning connects students to the science that is right outside their doors, whether it is studying animal science with FFA, learning about local ecosystems out on the prairies and in forests, or developing the technological skills required to operate increasingly complex and computerized farm equipment. That direct experience engages students and helps them understand that STEM skills matter to everyone, not just scientists in a white lab coat.

Taken together, the measures in this bill will make great strides to improve rural STEM education. I believe rural areas represent one of the greatest, yet most underutilized, opportunities for talented students to enhance the United States' future STEM workforce.

I am pleased that this bill has been endorsed by a number of stakeholder groups: STEM Education Coalition, Afterschool Alliance, Battelle and STEM-X, National Science Teaching Association, American Association of Colleges for Teacher Education, American Chemical Society, American Geophysical Union, Human Factors and

Ergonomics Society, Association of American Universities, Microsoft, Girl Scouts of the USA, National FFA Organization, and Association of Public and Land-grant Universities.

I again thank Chairwoman JOHNSON and her staff for working with me on this bill.

Mr. Speaker, I strongly encourage my colleagues to vote "yes" to better STEM education for America's rural students, and I reserve the balance of my time.

Ms. BONAMICI. Mr. Speaker, as a member of the Science, Space, and Technology Committee and the Committee on Education and Labor, I want to thank Mr. LUCAS for mentioning not only broadband but also place-based learning. I represent several rural school districts, and I appreciate this legislation.

Mr. Speaker, I continue to reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield 3 minutes to the gentleman from Michigan (Mr. MEIJER).

Mr. MEIJER. Mr. Speaker, I rise today in support of H.R. 210, the Rural STEM Education Research Act.

More than 9 million students in the U.S., nearly 20 percent of the K-12 population, attend rural schools. For reasons ranging from teacher quality to shortages of resources, these students often have fewer opportunities for high-quality STEM learning than their peers in urban and suburban schools.

Rural areas, including those in the Third District of Michigan, represent one of the greatest, yet underutilized, chances for STEM education to impact the workforce. It is especially important that we correct this in the wake of the coronavirus pandemic when we are facing serious research and development labor market shortages.

H.R. 210 would increase STEM education opportunities for rural communities, ensuring the option to learn is not dependent on your ZIP Code. I urge my colleagues to join me in supporting this bill.

Ms. BONAMICI. Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield 1½ minutes to the gentleman from Iowa (Mr. FEENSTRA).

Mr. FEENSTRA. Mr. Speaker, in this era of scientific and technological innovation, it has never been more important to ensure our students have access to quality STEM education programs, especially in rural communities.

Implementing high-speed, reliable broadband goes hand in hand with this goal.

This is why I urge my colleagues to support the Rural STEM Education Research Act. Both STEM education and quality broadband access are critical to the future success and revitalization of rural America.

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I am hopeful that this legislation will break down barriers rural Iowans face

in receiving STEM education that is both forward-thinking and long-lasting for our rural communities. This bill will also help us identify the technological and logistical challenges we still must overcome to provide broadband to every last acre of land.

Mr. Speaker, I thank the gentleman from Oklahoma, Ranking Member LUCAS, for this outstanding bill and important piece of legislation.

Ms. BONAMICI. Madam Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I am prepared to close, and I yield myself such time as I may consume.

Mr. Speaker, I, once again, thank Chairwoman JOHNSON for her support of this legislation. Whether you live in Dallas, Texas, or Cheyenne, Oklahoma, every student should have the opportunity to gain STEM skills and to compete for the jobs of the future.

The Rural STEM Education Research Act gives teachers better tools to teach science and math, leverages local resources to engage students in key subjects, and addresses the lack of broadband access in rural communities. This important legislation passed the House with strong bipartisan support last Congress. I hope it will do so again today.

Mr. Speaker, I encourage my colleagues to support this bill today, and I yield back the balance of my time.

Ms. BONAMICI. Mr. Speaker, I once again thank Ranking Member LUCAS for his work on this legislation. I thank Chairwoman JOHNSON for supporting it, and I urge its adoption.

Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentlewoman from Oregon (Ms. BONAMICI) that the House suspend the rules and pass the bill, H.R. 210, as amended.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. ROSENDALE. Mr. Speaker, on that I demand the yeas and nays.

The SPEAKER pro tempore. Pursuant to section 3(s) of House Resolution 8, the yeas and nays are ordered.

Pursuant to clause 8 of rule XX, further proceedings on this motion are postponed.

SUPPORTING EARLY-CAREER RESEARCHERS ACT

Ms. BONAMICI. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 144) to forestall the loss of research talent by establishing a temporary early career research fellowship program, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 144

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Supporting Early-Career Researchers Act".

SEC. 2. FINDINGS.

Congress finds the following:

(1) The Nation's universities and industrial research labs are facing unprecedented budget pressure as part of the COVID-19 health crisis, resulting in considerably fewer openings for research and teaching positions.

(2) Emergency funding is needed to forestall the loss of research talent likely to occur if early-career researchers are forced to seek employment outside of research due to the sharp economic decline caused by the COVID-19 health crisis.

(3) The future of America's defense will rely on advanced technologies to maintain its military superiority over its rivals, including China. These technologies will require new levels of scientific and engineering aptitude and understanding. Early career researchers will play a critical role in the development of these technologies, and the loss of an entire generation of researchers due to the COVID-19 pandemic will be detrimental to the United States national security.

SEC. 3. EARLY-CAREER RESEARCH FELLOWSHIP PROGRAM.

(a) IN GENERAL.—The Director of the National Science Foundation may establish a 2-year pilot program to award grants to highly qualified early-career investigators to carry out an independent research program at the qualified institution of higher education chosen by such investigator, to last for a period not greater than 2 years.

(b) SELECTION PROCESS.—The Director of the National Science Foundation shall select grantees under subsection (a) from among citizens, nationals, and lawfully admitted permanent resident aliens of the United States.

(c) OUTREACH.—The Director shall conduct program outreach to recruit fellowship applicants—

(1) from all regions of the country;

(2) from historically underrepresented populations in the fields of science, technology, engineering, and mathematics; and

(3) who graduate from or intend to carry out research at a variety of types of institutions of higher education, including—

(A) Historically Black Colleges and Universities;

(B) Hispanic-Serving Institutions;

(C) Tribal Colleges and Universities; and

(D) institutions of higher education that are not among the top 50 institutions in annual Federal funding for research.

(d) SPECIAL CONSIDERATION.—The Director shall give special consideration to an application from an individual who graduated from or is intending to carry out research at an institution of the type listed in subsection (c)(3).

(e) REPORT.—Not later than 90 days after the conclusion of the second year of the pilot program, the Director shall submit a report to Congress that includes—

(1) statistical summary data on fellowship awardees disaggregated by race, ethnicity, gender, age, years since completion of doctoral degree, and institution type;

(2) an assessment, drawing on feedback from the research community and other sources of information, of the effectiveness of the pilot program for mitigating the loss of research talent due to the pandemic; and

(3) if determined effective, a plan for permanent implementation of the pilot program.

(f) QUALIFIED INSTITUTION OF HIGHER EDUCATION DEFINED.—The term “qualified institution of higher education” has the meaning given the term in section 102 of the Higher Education Act of 1965, except that such term does not include an institution described in subsection (a)(1)(C) of such section.

SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to the Director of the National Science Foundation \$250,000,000 for each of fiscal years 2021 through 2022 to carry out the activities in this Act.

The SPEAKER pro tempore. Pursuant to the rule, the gentlewoman from Oregon (Ms. BONAMICI) and the gentleman from Oklahoma (Mr. LUCAS) each will control 20 minutes.

The Chair recognizes the gentlewoman from Oregon.

GENERAL LEAVE

Ms. BONAMICI. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and to include extraneous material on H.R. 144, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentlewoman from Oregon?

There was no objection.

Ms. BONAMICI. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in support of H.R. 144, the Supporting Early-Career Researchers Act. I commend Committee on Science, Space, and Technology Chairwoman JOHNSON and Ranking Member LUCAS for introducing this bill, which I am pleased to cosponsor.

The COVID-19 pandemic has affected all aspects of our lives, and the U.S. research enterprise has not been spared. As research labs and universities around the country took action to mitigate the spread of the virus in their labs and on their campuses, research productivity decreased dramatically. We still do not know the full financial consequences incurred by these institutions or their full costs in terms of lost science.

Compounding these declines in research productivity, women researchers and researchers from groups historically underrepresented in STEM have been particularly disadvantaged during the crisis because of childcare and other factors.

Facing unprecedented financial difficulties, many research universities instituted hiring freezes, and faculty job openings declined by nearly 70 percent. This limited job market has a greater effect on early-career researchers who may have their career derailed before it truly begins. Already, some early-career researchers are having to choose between applying their training and talent to an academic career and supporting their families.

Early-career researchers play a vital role in the U.S. research ecosystem. They are not only highly productive researchers, they also play a significant role in training the next generation of undergraduate and graduate STEM students. Their departure from research careers, if we do not stop it, will have a profound and long-lasting consequence on U.S. innovation and competitiveness in the 21st century.

Mr. Speaker, as increasing numbers of Americans receive COVID-19 vaccines and the research enterprise con-

tinues its recovery, we must make the retention of early-career researchers a priority. The Supporting Early-Career Researchers Act directs the National Science Foundation to establish a new \$250 million post-doctoral fellowship program to support early-career researchers.

This program will help prevent a significant loss of STEM talent. More than 40 organizations have endorsed this legislation. I, again, thank Chairwoman JOHNSON and Ranking Member LUCAS for their continued deliberation on this important issue, and I look forward to working with my colleagues on getting this bill signed into law.

Mr. Speaker, I strongly urge my colleagues to support H.R. 144, and I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in strong support of H.R. 144, the Supporting Early-Career Researchers Act, the first bipartisan bill Chairwoman JOHNSON and I introduced in the 117th Congress.

Over the past year, COVID-19 has caused substantial disruptions across this country, including in the U.S. research enterprise. Most research and development work stopped or was dramatically limited to provide for safe social distancing, and it is estimated we lost between 20 and as much as 40 percent of our research output.

In addition to this loss of research, we are facing the loss of our researchers. Graduate students and post-docs are particularly vulnerable to research disruptions. With their research on pause, these young scientists are finding it difficult to complete their degree requirements. Those who have finished their degrees are having trouble finding work.

Much of academia has implemented hiring freezes, and it is estimated that faculty openings in the sciences have decreased by more than 70 percent compared to 2019. At the same time, the pace of innovation is accelerating globally, and with it, the competition for scientific and technical talent.

The Chinese Communist Party has repeatedly stated it is determined to overtake the U.S. in critical technologies like AI, quantum computing, and advanced manufacturing. These technologies will require new levels of scientific skills and understanding, and this new generation of scientists will play a critical role in how they are developed.

Now more than ever, the innovation capacity of the U.S. and our prosperity and security depend on an effective and an innovative STEM workforce to compete with our adversaries.

If we do not provide the resources to support these young researchers, we will be limiting our ability to support new and innovative discoveries for years to come. Unfortunately, of the nearly \$6 trillion in COVID research spending that Congress has passed, only \$600 million was allocated to helping the research industry recover.

That is only 1 percent for a sector of our economy that drives as much as 85 percent of the long-term growth. We have relied on American science and scientists to combat COVID and we are not giving them the funding they need to resume the work that has been stopped by the pandemic and keep our future innovators in the system. Our STEM pipeline and future competitors could be irreparably damaged if we don't act quickly.

Mr. Speaker, that is why I am so proud to cosponsor this legislation. It will establish a pilot program at the National Science Foundation to provide 2-year fellowships to young researchers whose career paths have been disrupted by the pandemic. The bill will support 3,200 fellowships over 4 years. These fellowships will allow talented young scientists and engineers to carry out independent research at an institution of higher education of their choosing.

This bill provides targeted and temporary relief to support early-career scientists, keeping them in the STEM pipeline while the research enterprise recovers. By supporting these young researchers, we are investing in America's research and technology leadership.

This legislation has been endorsed by over 30 organizations, and has nearly as many cosponsors. It was favorably reported out of the Committee on Science, Space, and Technology on a bipartisan basis, and I strongly urge my colleagues to vote in favor of this bill.

Mr. Speaker, I, again, thank Chairwoman JOHNSON and her staff for working with me on this important legislation, and I reserve the balance of my time.

Ms. BONAMICI. Mr. Speaker, I continue to reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield 3 minutes to the gentleman from Michigan (Mr. MEIJER).

Mr. MEIJER. Mr. Speaker, I rise today to express my strong support for the bill on the floor this evening that will make substantial improvements in American research and development during a time when it is so badly needed. The COVID-19 pandemic has created unprecedented disruptions to our research enterprise and Congress must respond before our research community is irreparably harmed.

H.R. 144, the Supporting Early-Career Researchers Act, will address this crisis by providing funding to enable researchers to stay on their chosen research career track. This will help prevent further loss of critical talent from the U.S. STEM workforce and strengthen our Nation as we compete with China to invest in the future.

Within my district in West Michigan and across the State are some of the top-tier universities and research institutions our world has to offer. This bill will play a vital role in helping to restart any research they had to delay or postpone during the pandemic.

The pandemic has created these challenges, and our research and development fields have felt them. We must make a serious effort to increase productivity across STEM disciplines in order to remain globally competitive.

Mr. Speaker, I am proud to support H.R. 144, and I encourage my colleagues to vote with me in support of this bill.

Ms. BONAMICI. Mr. Speaker, I continue to reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I am prepared to close, and I yield myself such time as I may consume.

Mr. Speaker, America's scientific progress depends on a large pool of talented STEM professionals. Our early-career researchers are a critical link in the chain of developing the next generation of scientists.

Unfortunately, in the STEM community, these young scientists have been disproportionately affected by COVID-related lab closures, reduced funding, and hiring freezes. We risk losing these valuable scientists if we do nothing.

Mr. Speaker, I am proud to join Chairwoman JOHNSON in championing the Supporting Early-Career Researchers Act to support this up-and-coming generation of scientists and preserve America's research and technological leadership.

Mr. Speaker, in closing, I thank Chairwoman JOHNSON and her staff for working in a bipartisan and collaborative way on this legislation. I encourage my colleagues to support this bill, and I yield back the balance of my time.

Ms. BONAMICI. Mr. Speaker, I urge all of my colleagues to support the bipartisan Supporting Early-Career Researchers Act.

I thank Mr. LUCAS and Chair JOHNSON, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentlewoman from Oregon (Ms. BONAMICI) that the House suspend the rules and pass the bill, H.R. 144, as amended.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. ROSENDALE. Mr. Speaker, on that I demand the yeas and nays.

The SPEAKER pro tempore. Pursuant to section 3(s) of House Resolution 8, the yeas and nays are ordered.

Pursuant to clause 8 of rule XX, further proceedings on this motion are postponed.

STEM OPPORTUNITIES ACT

Ms. BONAMICI. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 204) to direct the Director of the Office of Science and Technology Policy to carry out programs and activities to ensure that Federal science agencies and institutions of higher education receiving Federal research and

development funding are fully engaging their entire talent pool, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 204

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS; FINDINGS.

(a) SHORT TITLE.—This Act may be cited as the “STEM Opportunities Act”.

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

- Sec. 1. Short title; table of contents; findings.
- Sec. 2. Purposes.
- Sec. 3. Federal science agency policies for caregivers.
- Sec. 4. Collection and reporting of data on Federal research grants.
- Sec. 5. Policies for review of Federal research grants.
- Sec. 6. Collection of data on demographics of faculty.
- Sec. 7. Cultural and institutional barriers to expanding the academic and Federal STEM workforce.
- Sec. 8. Research and dissemination at the National Science Foundation.
- Sec. 9. Research and related activities to expand STEM opportunities.
- Sec. 10. Tribal Colleges and Universities Program.
- Sec. 11. Report to Congress.
- Sec. 12. Merit review.
- Sec. 13. Determination of budgetary effects.
- Sec. 14. Definitions.

(c) FINDINGS.—The Congress finds the following:

(1) Many reports over the past decade have found that it is critical to our Nation's economic leadership and global competitiveness that the United States educates and trains more scientists and engineers.

(2) Research shows that women and minorities who are interested in STEM careers are disproportionately lost at nearly every educational transition and at every career milestone.

(3) The National Center for Science and Engineering Statistics at the National Science Foundation collects, compiles, analyzes, and publishes data on the demographics of STEM degrees and STEM jobs in the United States.

(4) Women now earn nearly 37 percent of all STEM bachelor's degrees, but major variations persist among fields. In 2017, women earned only 20 percent of all bachelor's degrees awarded in engineering and 19 percent of bachelor's degrees awarded in computer sciences. Based on Bureau of Labor Statistics data, jobs in computing occupations are expected to account for nearly 60 percent of the projected annual growth of newly created STEM job openings from 2016 to 2026.

(5) In 2017, underrepresented minority groups comprised 39 percent of the college-age population of the United States, but only 18 percent of students who earned bachelor's degrees in STEM fields. The Higher Education Research Institute at the University of California, Los Angeles, found that, while freshmen from underrepresented minority groups express an interest in pursuing a STEM undergraduate degree at the same rate as all other freshmen, only 22.1 percent of Latino students, 18.4 percent of African-American students, and 18.8 percent of Native American students studying in STEM fields complete their degree within 5 years, compared to approximately 33 percent of White students and 42 percent of Asian students who complete their degree within 5 years.