Resolved, That the House of Representatives—

(1) recognizes the importance of lumberjack sports to the culture and economy of Wisconsin;

(2) supports the growth of lumberjack sports around the United States; and

(3) requests that the Secretary of the Interior add the Lumberjack Bowl, the site of the Lumberjack World Championships, to the National Register of Historic Places.

AMENDMENT OFFERED BY MR. MCCLINTOCK

Mr. MCCLINTOCK. I have an amendment to the text at the desk.

The SPEAKER pro tempore. The Clerk will report the amendment.

The Clerk read as follows:

Page 2, line 1, strike ''That the House of Representatives—'' and all that follows through page 3, line 4, and insert the following: ''That the House of Representatives requests that the Secretary of the Interior add the Lumberjack Bowl, the site of the Lumberjack World Championships, to the National Register of Historic Places.''

Mr. MCCLINTOCK. Mr. Speaker, I ask unanimous consent to dispense with the reading.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from California?

There was no objection.

The amendment was agreed to.

The resolution, as amended, was agreed to.

A motion to reconsider was laid on the table.

INNOVATIONS IN MENTORING, TRAINING, AND APPRENTICESHIPS ACT

Mr. SMITH of Texas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 5509) to direct the National Science Foundation to provide grants for research about STEM education approaches and the STEM-related workforce, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 5509

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 ''Innovations in Mentoring, Training, and Apprenticeships Act''.

SEC. 2. FINDINGS.

Congress finds the following:

(1) To remain competitive in the global economy, foster greater innovation, and provide a foundation for shared prosperity, the United States needs a workforce with the right mix of skills to meet the diverse needs of the economy.

(2) Evidence indicates that the returns on investments in technical skills in the labor market are strong when students successfully complete their education and gain credentials sought by employers.

(3) The responsibility for developing and sustaining a skilled technical workforce is fragmented across many groups, including educators, students, workers, employers, Federal, State, and local governments, civic associations, and other stakeholders. Such groups need to be able to coordinate and cooperate successfully with each other.

(4) Coordination among students, community colleges, secondary and post-secondary institutions, and employers would improve educational outcomes.

(5) Promising experiments currently underway may guide innovation and reform, but scalability of some of those experiments has not yet been tested.

(6) Evidence suggests that integration of academic education, technical skills development, and hands-on work experience improves outcomes and return on investment for students in secondary and post-secondary education and for skilled technical workers in different career stages.

(7) Outcomes show that mentoring can increase STEM student engagement and the rate of completion of STEM post-secondary degrees.

SEC. 3. NATIONAL SCIENCE FOUNDATION STEM INNOVATION AND APPRENTICESHIP GRANTS.

(a) ESTABLISHMENT.—The Director of the National Science Foundation shall award competitive grants to eligible entities in accordance with this section.

(b) COORDINATION.—In carrying out this section, the Director shall consult and cooperate with the programs and policies of other relevant Federal agencies to avoid duplication with, and enhance the effectiveness of, the provision of grants under this section.

(c) GRANTS FOR ASSOCIATE DEGREE PROGRAMS IN STEM FIELDS.—

(1) IN GENERAL.—The Director of the National Science Foundation shall award competitive grants to community colleges to develop or improve associate or certificate programs in STEM fields in, with respect to the region in which the respective college is located, an in-demand industry sector or occupation (as defined in section 3(23)) of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102(23))).

(2) APPLICATION.—In considering applications for grants under paragraph (1), the Director shall prioritize—

(A) applicants that consist of a partnership between the applying community college and individual employers or an employer consortia, or industry or sector partnerships, and may include a university or other organization with demonstrated expertise in academic program development;

(B) applications that demonstrate current and future workforce demand in occupations directly related to the proposed associate degree or certificate program;

(C) applications that include commitments by the partnering employers or employer consortia, or industry or sector partnerships, to offer apprenticeships, internships or other applied learning opportunities to students enrolled in the proposed associate degree program;

(D) applications that include outreach plans and goals for recruiting and enrolling women and other historically underrepresented individuals in STEM studies and careers in the proposed associate degree program; and

(E) applications that describe how the applying community college will support the collection of information and data for purposes of evaluation of the proposed associate degree program.

(3) FUNDING.—The National Science Foundation shall devote not less than $20,000,000 to awards described in this subsection, which shall include not less than $5,000,000 for each of fiscal years 2018 through 2021, subject to the availability of appropriations, to come from amounts made available for the Education and Human Resources Directorate. This subsection shall be carried out using funds otherwise appropriated by law after the date of enactment of this Act.

(d) GRANTS FOR STEM DEGREE APPLIED LEARNING OPPORTUNITIES.—

(1) IN GENERAL.—The Director of the National Science Foundation shall award competitive grants to institutions of higher education partnering with employers or employer consortia, or industry or sector partnerships, that commit to offering apprenticeships, internships, research opportunities, or applied learning experiences to enrolled university students in identified STEM baccalaureate degree programs.

(2) APPLICATION.—In considering applications for grants under paragraph (1), the Director shall prioritize—

(A) applicants that consist of a partnership between—

(I) the applying university; and

(ii) individual employers or an employer consortia, or industry or sector partnerships;

(B) applications that demonstrate current and future workforce demand in occupations directly related to selected STEM fields;

(C) applications that include outreach plans and goals for recruiting and enrolling women and other populations historically underrepresented in STEM; and

(D) applications that describe how the university will support the collection and information of data for purposes of the evaluation of identified STEM degree programs.

(3) FUNDING.—The National Science Foundation shall devote not less than $10,000,000 to awards described in this subsection, which shall include not less than $2,500,000 for each of fiscal years 2018 through 2021, subject to the availability of appropriations, to come from amounts made available for the Education and Human Resources Directorate. This subsection shall be carried out using funds otherwise appropriated by law after the date of enactment of this Act.

(e) GRANTS FOR COMPUTER-BASED AND ONLINE STEM EDUCATION COURSES.—

(1) IN GENERAL.—The Director of the National Science Foundation shall award competitive grants to institutions of higher education or nonprofit organizations to conduct research on student outcomes and determine best practices for STEM education and technical skills education through distance learning or in a simulated work environment.

(2) RESEARCH AREAS.—The research areas eligible for funding under this subsection may include—

(A) post-secondary courses for technical skills development for STEM occupations;

(B) improving high-school level career and technical education in STEM subjects;

(C) encouraging and sustaining interest and achievement levels in STEM subjects among women and other populations historically underrepresented in STEM studies and careers; and

(D) combining computer-based and online STEM education and skills development with traditional mentoring and other mentoring arrangements, apprenticeships, internships, and other applied learning opportunities.

(3) FUNDING.—The National Science Foundation shall devote not less than $10,000,000 to awards described in this subsection, which shall include not less than $2,500,000 for each of fiscal years 2018 through 2021, subject to the availability of appropriations, to come from amounts made available for the Education and Human Resources Directorate. This subsection shall be carried out using funds otherwise appropriated by law after the date of enactment of this Act.

SEC. 4. RESEARCH ON EFFICIENCY OF SKILLED TECHNICAL LABOR MARKETS.

(a) EFFICIENCY OF SKILLED TECHNICAL LABOR MARKETS.—The Directorate of Social, Behavioral & Economic Sciences of the National Science Foundation, in coordination with the Secretary of Labor, shall support

research on labor market analysis innovations, data and information sciences, electronic information tools and methodologies, and metrics.

(b) COMPARISON OF UNITED STATES WORKFORCE.—

(1) RESEARCH.—The National Science Foundation shall commission research that compares and contrasts skilled technical workforce development between States and regions within the United States and other developed countries, including the diversity of skilled technical and professional workforces, to the extent feasible.

(2) REPORT.—Not later than 3 years after the date of enactment of this Act, the Director of the National Science Foundation shall submit to Congress a report on the results of the study under paragraph (1).

(c) SKILLED TECHNICAL WORKFORCE.—

(1) REVIEW.—The National Center for Science and Engineering Statistics of the National Science Foundation shall consult and coordinate with other relevant Federal statistical agencies, including the Institution of Education Science, and the Committee on Science, Technology, Engineering, and Mathematics Education, to explore the feasibility of expanding its surveys to include the collection of objective data on the skilled technical workforce.

(2) REPORT.—Not later than 1 year after the date of enactment of this Act, the Director of the National Science Foundation shall submit to Congress a report containing the progress made in expanding the National Center for Science and Engineering Statistics surveys to include the skilled technical workforce. Such report shall include a plan for multi-agency collaboration in order to effect data collection and reporting of data on the skilled technical workforce.

SEC. 5. SPENDING LIMITATION.

No additional funds are authorized to be appropriated to carry out this Act and the amendments made by this Act, and this Act and such amendments shall be carried out using amounts otherwise available for such purpose.

SEC. 6. EVALUATION AND REPORT.

(a) EVALUATION.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Director of the National Science Foundation shall evaluate the grants and programs provided under this Act.

(2) REQUIREMENTS.—In conducting the evaluation under paragraph (1), the Director shall —

(A) use a common set of benchmarks and assessment tools to identify best practices and materials developed or demonstrated by the research conducted pursuant to such grants and programs;

(B) include an assessment of the effectiveness of the grant programs established under this Act in expanding apprenticeships, internships, and other applied learning opportunities offered by employers in conjunction with community colleges and institutions of higher education;

(C) assess the number of students who participated in programs established under or pursuant to this Act;

(D) assess the percentage of students participating in programs established under or pursuant to this Act who successfully complete their education program; and

(E) assess the median earnings of students who have completed a program with respect to which a grant was awarded under section 3(c), as of the date that is two calendar quarters after completing the program, as practicable.

(b) REPORT ON EVALUATIONS.—Not later than 180 days after the completion of the evaluation under subsection (a), the Director of the National Science Foundation shall submit to Congress and make widely available to the public a report that includes—

(1) the results of the evaluation; and

(2) any recommendations for legislative action that could optimize the effectiveness of the grants and programs under this Act.

(c) CONSULTATION.—In carrying out this section, the Director of the Foundation shall consult the programs and policies of other relevant Federal agencies to avoid duplication with, and enhance the effectiveness of, the grants and programs under this Act.

(d) SUBMISSION TO SECRETARY OF EDUCATION.—On the date on which the report is submitted under subsection (b), the Director of the National Science Foundation shall also submit to the Secretary of Education a copy of the report.

SEC. 7. DEFINITIONS.

In this Act:

(1) STEM.—The term ''STEM'' means science, technology, engineering, and mathematics, including computer science.

(2) COMMUNITY COLLEGE.—The term ''community college'' has the meaning given the term ''junior and community college'' in section 312 of the Higher Education Act of 1965 (20 U.S.C. 1058).

(3) REGION.—The term ''region'' means a labor market area, as such term is defined in section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102).

(4) SKILLED TECHNICAL WORKFORCE.—The term ''skilled technical workforce'' means workers with high school diplomas and two-year technical training or certifications who employ significant levels of STEM knowledge in their jobs.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Texas (Mr. SMITH) and the gentleman from Illinois (Mr. LIPINSKI) each will control 20 minutes.

The Chair recognizes the gentleman from Texas.

GENERAL LEAVE

Mr. SMITH of Texas. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to include extraneous material on H.R. 5509, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. SMITH of Texas. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, H.R. 5509, the Innovations in Mentoring, Training, and Apprenticeships Act, was introduced by Majority Leader KEVIN MCCARTHY and cosponsored by a number of Science, Space, and Technology Committee members and approved by the Science, Space, and Technology Committee.

H.R. 5509 continues the bipartisan progress the Science Committee has made to expand and improve science, technology, engineering, mathematics, and computer science education programs to create new pathways to STEM careers.

We can't overstate the value of a strong STEM workforce in America. STEM workers drive innovation, manufacturing, scientific discovery, and productivity across the economy. According to the National Science Board's most recent ''Science and Engineering Indicators'' report, the number of U.S. jobs that require STEM skills has grown by a third over the past decade.

STEM workforce demand is forecast to increase steadily for years to come. Unfortunately, we know that nearly 40 percent of students who embark on a STEM major do not complete it, and only half of STEM graduates are employed in STEM jobs. We also know that apprenticeship and mentoring initiatives can improve the rate of STEM degree completion at both 4-year universities and community colleges.

America's competitiveness in STEM fields requires a diverse and flexible workforce comprised of workers with educational backgrounds ranging from certificate-level technical occupations to Ph.D.s. To this end, H.R. 5509 directs the National Science Foundation to fund initiatives that support innovative partnerships between academic institutions and local industries.

The NSF will offer at least $5 million per year over the next 4 years in grants to community colleges to develop new STEM courses and degrees. These programs will combine formal education with on-the-job work experiences, such as apprenticeships and internships, by partnering with local employers.

Additionally, the pending legislation directs NSF to offer at least another $2.5 million per year for the next 4 years to 4-year universities to partner with local industry and offer apprenticeships and other applied learning experiences for STEM undergraduate students.

The bill also requires the National Science Foundation to award $2.5 million per year over the next 4 years for research grants to measure student outcomes and the effectiveness of computer-based and online courses for technical skills training.

Leader MCCARTHY's legislation further directs the NSF to research the difference between skilled technical workforce development in the United States and in other developed countries.

Lastly, H.R. 5509 requires the National Science Foundation to conduct research on labor market analysis innovations and America's skilled technical workforce in order to improve our understanding of this workforce's trends and needs.

The innovative initiatives in this legislation will leverage the hard work and ingenuity of women and men of all ages, education levels, and backgrounds to meet the demand for a STEM-capable workforce.

Much like the action the Trump administration has already taken to expand apprenticeships to help meet today's rapidly changing economy, the Innovations in Mentoring, Training, and Apprenticeships Act takes significant steps to invest in new STEM education and workforce development programs. Such investments will ensure the United States remains competitive in the global economy both today and tomorrow.

The majority leader's bill will enhance America's STEM competitiveness and contribute to our future economic prosperity, so there are many good reasons to support this legislation.

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

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

Mr. Speaker, I rise in support of H.R. 5509, the Innovations in Mentoring, Training, and Apprenticeships Act. I would like to thank Majority Leader MCCARTHY for introducing this bill.

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Building a workforce with skills in the STEM fields—science, technology, engineering, and math—which can meet the demands of our continually evolving economy is one of the most pressing challenges that we face today.

Many companies are having difficulty recruiting and retaining workers with sufficient STEM skills for their needs. This STEM skills gap has existed for years and is continuing to widen. With companies across all economic sectors increasing their reliance on data, automation, and technology-driven business models, the need for STEM workers has never been greater.

Employers are increasingly concerned that their inability to hire employees with the technical skills they need will affect their capacity to innovate, increase production, and expand internationally. Make no mistake: America's future economic prosperity is on the line.

High schools, community colleges, and universities have been slow to respond, struggling to adapt their curriculum to keep pace with the rapidly evolving needs of industry. There is a need to innovate and encourage partnerships between educators in the private sector to better prepare the next generation of skilled technical workers.

Apprenticeships have garnered significant attention in recent years because of the potential to bridge the STEM skills gap. Apprenticeships offer workers practical hands-on training, nationally recognized credentials, and the potential to earn credit towards an associate's or bachelor's degree. At the completion of an apprenticeship, most workers are on the path to a long-term, well-paying career with little or no education-related debt.

By investing in education and on-the-job training for their workers, employers can develop a workforce equipped with a set of skills tailored to the specific needs of their businesses.

Despite the benefits for employers and employees, apprenticeships remain underutilized in the United States when compared with other developed nations. President Obama first called for expanded access to apprenticeships in his 2014 State of the Union Address. In 2016, Congress appropriated funding for the Department of Labor in support of expanding entrepreneurships.

H.R. 5509 builds on these efforts and ongoing activities at the National Science Foundation by providing support for the improvement of STEM degree programs and apprenticeship programs in partnership with universities and local employers. This legislation also supports research to find lessons learned from international approaches to skilled technical workforce development.

Mr. Speaker, we must prepare a workforce that keeps pace with needs of industry if we are to reach our full economic potential and remain the global leaders in innovation. H.R. 5509 is a good step in that direction.

Mr. Speaker, I urge my colleagues to support this bill, and I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Speaker, I yield 3 minutes to the gentlewoman from Arizona (Mrs. LESKO), who is an active member of the Science, Space, and Technology Committee and a member of both the Research and Technology and Environment Subcommittees.

Mrs. LESKO. Mr. Speaker, first, I want to applaud the American Legislative Exchange Council members who are joining us tonight and their CEO, Lisa Nelson, and her staff. I thank them for attending.

Mr. Speaker, I rise in strong support of H.R. 5509, the Innovations in Mentoring, Training, and Apprenticeships Act.

Presently, the American economy faces a shortage of 6 million skilled workers, a number expected to reach 11 million by 2022. This workforce shortage will only continue to grow unless we focus on training the next generation of skilled workers.

In Arizona, we are seeing rapid growth in the science, technology, and engineering fields. Our aerospace industry is being strengthened by the creation of university partnerships like the ASU Research Enterprise and Aerospace Arizona.

In order to support these growing industries, we must take action. This legislation is a step in that direction by providing grants for innovative approaches to STEM education and related workforce development. The bill expands the workforce pipeline in STEM fields through experiments with apprenticeships and other applied learning opportunities for college students and places a focus on the enhancement of 2-year degree programs and technical skill certificates in order to meet the shortage of qualified candidates at all levels.

I want to thank the majority leader for bringing this legislation forward, and I urge my colleagues to support this bill.

Mr. LIPINSKI. Mr. Speaker, I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Speaker, I yield 4 minutes to the gentlewoman from Virginia (Mrs. COMSTOCK), who is a member of the Science, Space, and Technology Committee and is the chairwoman of the Research and Technology Subcommittee.

Mrs. COMSTOCK. Mr. Speaker, I thank Chairman SMITH for yielding me the time.

I rise in support of H.R. 5509, the Innovations in Mentoring, Training, and Apprenticeships Act. This bill takes important steps in addressing the growing need for a diverse and technically trained STEM workforce.

Technological advances have transformed the workplace with almost 20 percent of all jobs in the U.S. economy requiring some level of STEM training. These jobs are expected to grow nearly 9 percent over the next decade, faster than any other employment category; and, of course, we know these are also higher paying jobs, and we want more women and a more diverse workforce here, also.

Unfortunately, we also know that we have been failing to keep students in the STEM pipeline. Almost half of all students who start in a STEM major do not graduate with one. Of those who do graduate with a STEM degree, only half go on to a career in a STEM field. It is essential we address these challenges in order to ensure U.S. competitiveness in the global economy.

In February, I chaired a Research and Technology Subcommittee hearing, which looked at innovative STEM education and workforce training models from across the country. These models demonstrated how apprenticeships, mentoring, and on-the-job training are used to successfully bridge STEM skills gaps.

I am happy to say that many of the lessons learned from that hearing are reflected in this bill, including the point that most successful programs are an integration of academia, technical training, and hands-on work experience.

H.R. 5509 directs the National Science Foundation to competitively award grants to community colleges and 4-year institutions to develop and improve STEM courses and degrees. These programs will combine formal education with applied learning experiences, such as apprenticeships and internships, by partnering with regional employers needing to fill skilled and technical STEM jobs.

This bill also calls for NSF to competitively award grants to determine best practices and measure student outcomes of distance learning and simulated work environment courses for STEM education and technical skills training.

Lastly, it directs the National Science Foundation to examine the development and sustainability of skilled technical workforces from across the U.S. and around the world, explore the feasibility of surveying the U.S. skilled technical workforce, and research and develop potential labor market analysis innovations.

These programs and important research will help support and build the

STEM pipeline and the STEM workforce that will drive American innovation in order to meet the challenges of the 21st century economy.

I want to thank Leader MCCARTHY for introducing this legislation and for the opportunity to cosponsor this. I also thank Chairman SMITH and Ranking Member JOHNSON for their great work in ushering this bill through the committee on a bipartisan basis.

I urge my colleagues to support this bill.

Mr. LIPINSKI. Mr. Speaker, I yield myself the balance of my time.

Mr. Speaker, I am a proud cosponsor of H.R. 5509 because it recognizes the great work under way in National Science Foundation's Advanced Technological Education Program. This program works to promote the development of our STEM technical workforce and ensures that it continues to be prioritized going forward.

As my colleagues are aware, I have two degrees in engineering. My wife also has a degree in math. This is part of the reason I am an ardent supporter of STEM education, especially education that is aligned with the requirements for in-demand careers.

One such program in my district is called the National Center for Systems Security and Information Assurance at Moraine Valley Community College. Since 2003, it has received Advanced Technological Education funding from NSF to be a national center of excellence in cybersecurity education. The college provides students with real-world learning experiences and provides curriculum, instructional materials, and professional development for cybersecurity educators around the world.

We all know that there is a massive nationwide need for cybersecurity professionals. According to the Department of Homeland Security's National Initiative for Cybersecurity Education, there are currently over 301,000 open jobs in cybersecurity, including over 13,000 in the public sector.

To make progress in meeting this need as well as the need in other STEM fields, we will need many more innovative education programs like the one at Moraine Valley and those promoted by H.R. 5509. This type of education benefits students, employers, our economy, and our national security, and it is worthy of this Chamber's support.

I thank Chairman SMITH and Ranking Member EDDIE BERNICE JOHNSON for their work on this bill. I thank Chairman SMITH for his bipartisan work on the three bills that we are doing here tonight, and I am hopeful that perhaps there will be more to do before the end of this Congress.

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

Mr. SMITH of Texas. Mr. Speaker, I yield myself the balance of my time.

Mr. Speaker, just briefly, I thank the gentleman from Illinois (Mr. LIPINSKI) for working with us so well on so many bills for almost 2 years. I think he has been as active on the legislation as any other member of the committee, and as he pointed out or suggested, most of the bills that we passed under the Science, Space, and Technology Committee's jurisdiction are, in fact, bipartisan bills; and he has, as often as not, been an important player in the passage of those pieces of legislation.

Mr. Speaker, there are no other requests for time, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Texas (Mr. SMITH) that the House suspend the rules and pass the bill, H.R. 5509, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY REAUTHORIZATION ACT OF 2018

Mrs. COMSTOCK. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 6229) to authorize the programs of the National Institute of Standards and Technology, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 6229

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 ''National Institute of Standards and Technology Reauthorization Act of 2018''.

SEC. 2. AUTHORIZATION OF APPROPRIATIONS.

(a) FISCAL YEAR 2018.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary of Commerce $1,198,500,000 for the National Institute of Standards and Technology for fiscal year 2018.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized by paragraph (1)—

(A) $724,500,000 shall be for scientific and technical research and services laboratory activities;

(B) $319,000,000 shall be for the construction and maintenance of facilities; and

(C) $155,000,000 shall be for industrial technology services activities.

(b) FISCAL YEAR 2019.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary of Commerce $1,125,000,000 for the National Institute of Standards and Technology for fiscal year 2019.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized by paragraph (1)—

(A) $850,000,000 shall be for scientific and technical research and services laboratory activities, of which—

(i) $109,900,000 shall be for the advanced communications, networks, and scientific data systems mission area;

(ii) $103,200,000 shall be for the cybersecurity and privacy mission area;

(iii) $234,000,000 shall be for the fundamental measurement, quantum science and measurement dissemination mission area; and

(iv) $89,800,000 shall be for the physical infrastructure and resilience mission area;

(B) $120,000,000 shall be for the construction and maintenance of facilities; and

(C) $155,000,000 shall be for industrial technology services activities.

SEC. 3. QUANTUM INFORMATION SCIENCE.

(a) RESEARCH ACTIVITIES AND ENGAGEMENT.—The Secretary, acting through the Director, shall—

(1) continue to support and expand basic quantum information science and technology research and development of measurement and standards infrastructure necessary to advance commercial development of quantum applications;

(2) use the programs of the Institute, in collaboration with other relevant Federal agencies, as appropriate, to train scientists in quantum information science and technology to increase participation in the quantum fields;

(3) establish or expand collaborative ventures or consortia with other public or private sector entities, including other Federal agencies engaged in quantum information science research and development, institutions of higher education, National Laboratories, and industry, for the purpose of advancing the field of quantum information science and engineering; and

(4) have the authority to enter into and perform such contracts on such terms as the Secretary, acting through the Director, considers appropriate, including cooperative research and development arrangements and grants and cooperative agreements or other transactions, as may be necessary in the conduct of the work of the Institute with respect to quantum information science and technology.

(b) QUANTUM WORKSHOP.—

(1) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act, the Secretary, acting through the Director, shall convene a workshop of stakeholders to discuss the future measurement, standards, cybersecurity, and other issues that relate to development of quantum information science in the United States. The goals of the workshop shall be—

(A) assessment of the Institute's quantum information science and technology research work, including areas that may need additional Institute investment in order to support development of quantum information science and technology in the United States; and

(B) consideration of recommendations and priority issues for the Institute's participation in the proposed National Quantum Initiative Program.

(2) REPORT TO CONGRESS.—Not later than 2 years after the date of enactment of this Act, the Secretary, acting through the Director, shall transmit to the Committee on Science, Space, and Technology and the Committee on Appropriations of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate a summary report containing the findings of the workshop convened under this subsection.

(c) FUNDING.—The Secretary of Commerce shall devote $80,000,000 to carry out this section for fiscal year 2019, subject to the availability of appropriations, to come from amounts made available pursuant to section 2(b)(2)(A)(iii) of this Act. This section shall be carried out using funds otherwise appropriated by law after the date of enactment of this Act.

SEC. 4. CYBERSECURITY RESEARCH.

(a) RESEARCH.—The Secretary, acting through the Director, shall expand the fundamental and applied research carried out by the Institute to address key questions relating the measurement of privacy, security,