fense Authorization Act for Fiscal Year 2021 (Public Law 116–283), including through—

(1) expanding the Institute's capabilities, including scientific staff and research infrastructure;

(2) supporting measurement research and development for advanced computer chips and hardware designed for artificial intelligence systems;

(3) supporting the development of technical standards and guidelines that promote safe and trustworthy artificial intelligence systems, such as enhancing the accuracy, explainability, privacy, reliability, robustness, safety, security, and mitigation of harmful bias in artificial intelligence systems;

(4) creating a framework for managing risks associated with artificial intelligence systems; and

(5) developing and publishing cybersecurity tools, encryption methods, and best practices for artificial intelligence and data science.

(Pub. L. 117–167, div. B, title II, §10232(a), Aug. 9, 2022, 136 Stat. 1484.)

Editorial Notes

REFERENCES IN TEXT

The National Artificial Intelligence Initiative Act of 2020, referred to in introductory provisions of subsec. (a), is div. E of Pub. L. 116–283, Jan. 1, 2021, 134 Stat. 4523, which is classified principally to chapter 119 of Title 15, Commerce and Trade. For complete classification of div. E to the Code, see Short Title note set out under section 9401 of Title 15 and Tables.

Division E of the National Defense Authorization Act for Fiscal Year 2021, referred to in introductory provisions of subsec. (a), is div. E of Pub. L. 116–283, Jan. 1, 2021, 134 Stat. 3388, also known as the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021. For complete classification of this Act to the Code, see Tables.

§ 18938. Sustainable chemistry research and education

In accordance with section 9303 of title 15, the Director shall carry out activities in support of sustainable chemistry, including coordinating and partnering with academia, industry, nonprofit organizations, and other entities in activities to support clean, safe, and economic alternatives, technologies, and methodologies to traditional chemical products and processes.

(Pub. L. 117–167, div. B, title II, §10233, Aug. 9, 2022, 136 Stat. 1484.)

§ 18939. Premise plumbing research

(a) In general

The Secretary, acting through the Director, shall create a program, in consultation with the Environmental Protection Agency, for premise plumbing research, including to—

(1) conduct metrology research on premise plumbing in relation to water safety, security, efficiency, sustainability, and resilience; and

(2) coordinate research activities with academia, the private sector, nonprofit organizations, and other Federal agencies.

(b) Definitions

For purposes of this section, the term ''premise plumbing'' means the water distribution system located within the property lines of a property, including all buildings and permanent structures on such property. Such term includes building supply and distribution pipes, fixtures, fittings, water heaters, water-treating and water-using equipment, and all respective joints, connections, devices, and appurtenances.

(Pub. L. 117–167, div. B, title II, §10234, Aug. 9, 2022, 136 Stat. 1485.)

§ 18940. Dr. David Satcher Cybersecurity Education Grant Program

(a) Authorization of grants

(1) In general

Subject to the availability of appropriations, the Director shall carry out the Dr. David Satcher Cybersecurity Education Grant Program by—

(A) awarding grants to assist institutions of higher education that have an enrollment of needy students, historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions, to establish or expand cybersecurity programs, to build and upgrade institutional capacity to better support new or existing cybersecurity programs, including cybersecurity partnerships with public and private entities, and to support such institutions on the path to producing qualified entrants in the cybersecurity workforce or becoming a National Center of Academic Excellence in Cybersecurity; and

(B) awarding grants to build capacity at institutions of higher education that have an enrollment of needy students, historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions, to expand cybersecurity education opportunities, cybersecurity programs, cybersecurity research, and cybersecurity partnerships with public and private entities.

(2) Reservation

The Director shall award not less than 50 percent of the amount available for grants under this section to historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions.

(3) Coordination

The Director shall carry out this section in coordination with appropriate Federal agencies, including the Departments of Homeland Security, Education, and Labor.

(4) Sunset

The Director's authority to award grants under paragraph (1) shall terminate on the date that is 5 years after the date the Director first awards a grant under paragraph (1).

(b) Applications

An eligible institution seeking a grant under subsection (a) shall submit an application to the Director at such time, in such manner, and containing such information as the Director may reasonably require, including a statement of how the institution will use the funds awarded

through the grant to expand cybersecurity education opportunities at the eligible institution.

(c) Activities

An eligible institution that receives a grant under this section may use the funds awarded through such grant for increasing research, education, technical, partnership, and innovation capacity, including for—

(1) building and upgrading institutional capacity to better support new or existing cybersecurity programs, including cybersecurity partnerships with public and private entities;

(2) building and upgrading institutional capacity to provide hands-on research and training experiences for undergraduate and graduate students; and

(3) outreach and recruitment to ensure students are aware of such new or existing cybersecurity programs, including cybersecurity partnerships with public and private entities.

(d) Reporting requirements

Not later than—

(1) one year after the effective date of this section, as provided in subsection (f), and annually thereafter until the Director submits the report under paragraph (2), the Director shall prepare and submit to Congress a report on the status and progress of implementation of the grant program under this section, including on the number and demographics of institutions participating, the number and nature of students served by cybersecurity programs at institutions receiving grants, as well as the number of certificates or degrees awarded through such cybersecurity programs, the level of funding provided to grant recipients, the types of activities being funded by the grants program, and plans for future implementation and development; and

(2) five years after the effective date of this section, as provided in subsection (f), the Director shall prepare and submit to Congress a report on the status of cybersecurity education programming and capacity-building at institutions receiving grants under this section, including changes in the scale and scope of these programs, associated facilities, or in accreditation status, and on the educational and employment outcomes of students participating in cybersecurity programs that have received support under this section.

(e) Performance metrics

The Director shall establish performance metrics for grants awarded under this section.

(f) Effective date

This section shall take effect 1 year after August 9, 2022.

(Pub. L. 117–167, div. B, title II, § 10235, Aug. 9, 2022, 136 Stat. 1485.)

PART B—GENERAL ACTIVITIES

§ 18951. International standards development

(a) Sense of Congress

It is the sense of Congress that—

(1) the principles of openness, transparency, due process, balance of interests, appeals, and consensus in the development of international standards are critical;

(2) voluntary consensus standards, developed through an industry-led process, serve as the cornerstone of the United States standardization system and have become the basis of a sound national economy and the key to global market access;

(3) strengthening the unique United States public-private partnerships approach to standards development is critical to United States economic competitiveness; and

(4) the United States Government should ensure cooperation and coordination across Federal agencies to partner with and support private sector stakeholders to continue to shape international dialogues in regard to standards development for emerging technologies.

(b) International standards engagement

(1) In general

The Director shall lead information exchange and coordination among Federal agencies and communication from Federal agencies to the private sector of the United States to ensure effective Federal engagement in the development and use of international technical standards.

(2) Requirements

To support private sector-led engagement and ensure effective Federal engagement in the development and use of international technical standards, the Director shall consider—

(A) the role and needs of the Federal Government with respect to international technical standards;

(B) organizations developing international technical standards of interest to the United States, United States representation and influence in these organizations, and key contributors for technical and leadership expertise in these organizations;

(C) support for persons with domain subject matter expertise, especially from small businesses located in the United States, to influence and engage in technical standards leadership positions, working groups and meetings;

(D) opportunities for partnerships for supporting international technical standards from across the Federal Government, Federally funded research and development centers, university-affiliated research centers, institutions of higher education, industry, industry associations, nonprofit organizations, and other key contributors;

(E) support for activities to encourage the adoption of technical standards developed in the United States to be adopted by international standards organizations; and

(F) other activities determined by the Director to be necessary to support United States participation in international standards development, economic competitiveness, and national security in the development and use of international technical standards.

(c) Capacity building guidance

The Director shall support education and workforce development efforts to promote