national securities exchange through September 30, 2022;

(iii) refrain from paying dividends, or making other capital distributions, with respect to common stock (or equivalent interest) of the contractor through September 30, 2022;

(iv) during the 2-year period beginning April 1, 2021, and ending April 1, 2023, refrain from paying-

(I) any officer or employee of the contractor whose total compensation exceeded \$425,000 in calendar year 2019 (other than an employee whose compensation is determined through an existing collective bargaining agreement entered into prior to March 11, 2021)-

(aa) total compensation that exceeds, during any 12 consecutive months of such 2-year period, the total compensation received by the officer or employee from the contractor in calendar year 2019; or

(bb) severance pay or other benefits upon termination of employment with the contractor which exceeds twice the maximum total compensation received by the officer or employee from the contractor in calendar year 2019; and

(II) any officer or employee of the contractor whose total compensation exceeded \$3,000,000 in calendar year 2019 during any 12 consecutive months of such period total compensation in excess of the sum of-

(aa) \$3,000,000; and

(bb) 50 percent of the excess over \$3,000,000 of the total compensation received by the officer or employee from the contractor in calendar year 2019.

(6) the term "Secretary" means the Secretary of the Treasury.

(b) Payroll support grants

(1) In general

The Secretary shall make available to eligible air carriers and eligible contractors, financial assistance exclusively for the continuation of payment of employee wages, salaries, and benefits to-

- (A) eligible air carriers, in an aggregate amount of \$14,000,000,000; and
- (B) eligible contractors, in an aggregate amount of \$1,000,000,000.

(2) Apportionments

(A) In general

The Secretary shall apportion funds to eligible air carriers and eligible contractors in accordance with the requirements of this section not later than April 15, 2021.

(B) Eligible air carriers

The Secretary shall apportion funds made available under paragraph (1)(A) to each eligible air carrier in the ratio that-

(i) the amount received by the air carrier pursuant to section 9093(a) of this title bears to

(ii) \$15,000,000,000.

(C) Eligible contractors

The Secretary shall apportion, to each eligible contractor, an amount equal to the total amount such contractor received pursuant to section 9093(a) of this title.

(3) In general

(A) Forms; terms and conditions

The Secretary shall provide financial assistance to an eligible air carrier or eligible contractor under this section in the same form and on the same terms and conditions as determined by pursuant to 2 section 9093(b)(1)(A) of this title.

(B) Procedures

The Secretary shall publish streamlined and expedited procedures not later than 5 days after March 11, 2021, for eligible air carriers and eligible contractors to submit requests for financial assistance under this

(C) Deadline for immediate payroll assist-

Not later than 10 days after March 11, 2021, the Secretary shall make initial payments to air carriers and contractors that submit requests for financial assistance approved by the Secretary.

(4) Taxpayer protection

The Secretary shall receive financial instruments issued by recipients of financial assistance under this section in the same form and amount, and under the same terms and conditions, as determined by the Secretary under section 9098 of this title.

(5) Administrative expenses

Of the amounts made available under paragraph (1)(A), \$10,000,000 shall be made available to the Secretary for costs and administrative expenses associated with providing financial assistance under this section.

(c) Funding

In addition to amounts otherwise available, there is appropriated for fiscal year 2021, out of any money in the Treasury not otherwise appropriated, \$15,000,000,000, to remain available until expended, to carry out this section.

(Pub. L. 117-2, title VII, §7301, Mar. 11, 2021, 135 Stat. 104.)

Editorial Notes

CODIFICATION

Section was enacted as part of the American Rescue Plan Act of 2021, and not as part of the CARES Act which in part comprises this chapter.

CHAPTER 117—IDENTIFYING OUTPUTS OF GENERATIVE ADVERSARIAL NETWORKS

Sec.

9201 Findings.

9202.

NSF support of research on manipulated or synthesized content and information secu-

9203 NIST support for research and standards on generative adversarial networks.

Generative adversarial network defined. 9204.

² So in original.

§9201. Findings

Congress finds the following:

- (1) Gaps currently exist on the underlying research needed to develop tools that detect videos, audio files, or photos that have manipulated or synthesized content, including those generated by generative adversarial networks. Research on digital forensics is also needed to identify, preserve, recover, and analyze the provenance of digital artifacts.
- (2) The National Science Foundation's focus to support research in artificial intelligence through computer and information science and engineering, cognitive science and psychology, economics and game theory, control theory, linguistics, mathematics, and philosophy, is building a better understanding of how new technologies are shaping the society and economy of the United States.
- (3) The National Science Foundation has identified the "10 Big Ideas for NSF Future Investment" including "Harnessing the Data Revolution" and the "Future of Work at the Human-Technology Frontier", with artificial intelligence is a critical component.
- (4) The outputs generated by generative adversarial networks should be included under the umbrella of research described in paragraph (3) given the grave national security and societal impact potential of such networks.
- (5) Generative adversarial networks are not likely to be utilized as the sole technique of artificial intelligence or machine learning capable of creating credible deepfakes. Other techniques may be developed in the future to produce similar outputs.

(Pub. L. 116-258, §2, Dec. 23, 2020, 134 Stat. 1150.)

Statutory Notes and Related Subsidiaries

SHORT TITLE

Pub. L. 116-258, §1, Dec. 23, 2020, 134 Stat. 1150, provided that: "This Act [enacting this chapter] may be cited as the 'Identifying Outputs of Generative Adversarial Networks Act' or the 'IOGAN Act'."

§ 9202. NSF support of research on manipulated or synthesized content and information security

The Director of the National Science Foundation, in consultation with other relevant Federal agencies, shall support merit-reviewed and competitively awarded research on manipulated or synthesized content and information authenticity, which may include—

- (1) fundamental research on digital forensic tools or other technologies for verifying the authenticity of information and detection of manipulated or synthesized content, including content generated by generative adversarial networks:
- (2) fundamental research on technical tools for identifying manipulated or synthesized content, such as watermarking systems for generated media;
- (3) social and behavioral research related to manipulated or synthesized content, including human engagement with the content:
- (4) research on public understanding and awareness of manipulated and synthesized

content, including research on best practices for educating the public to discern authenticity of digital content; and

(5) research awards coordinated with other federal agencies and programs, including the Defense Advanced Research Projects Agency and the Intelligence Advanced Research Projects Agency, with coordination enabled by the Networking and Information Technology Research and Development Program.

(Pub. L. 116-258, §3, Dec. 23, 2020, 134 Stat. 1151.)

§ 9203. NIST support for research and standards on generative adversarial networks

(a) In general

The Director of the National Institute of Standards and Technology shall support research for the development of measurements and standards necessary to accelerate the development of the technological tools to examine the function and outputs of generative adversarial networks or other technologies that synthesize or manipulate content.

(b) Outreach

The Director of the National Institute of Standards and Technology shall conduct outreach—

- (1) to receive input from private, public, and academic stakeholders on fundamental measurements and standards research necessary to examine the function and outputs of generative adversarial networks; and
- (2) to consider the feasibility of an ongoing public and private sector engagement to develop voluntary standards for the function and outputs of generative adversarial networks or other technologies that synthesize or manipulate content.

(Pub. L. 116–258, §4, Dec. 23, 2020, 134 Stat. 1151.)

§ 9204. Generative adversarial network defined

In this chapter, the term "generative adversarial network" means, with respect to artificial intelligence, the machine learning process of attempting to cause a generator artificial neural network (referred to in this section as the "generator" and a discriminator artificial neural network (referred to in this section as a "discriminator") to compete against each other to become more accurate in their function and outputs, through which the generator and discriminator create a feedback loop, causing the generator to produce increasingly higher-quality artificial outputs and the discriminator to increasingly improve in detecting such artificial outputs.

(Pub. L. 116-258, §6, Dec. 23, 2020, 134 Stat. 1152.)

Editorial Notes

REFERENCES IN TEXT

This chapter, referred to in text, was in the original "this Act", meaning Pub. L. 116-258, Dec. 23, 2020, 134 Stat. 1150, known as the Identifying Outputs of Generative Adversarial Networks Act and also as the IOGAN

¹So in original. Probably should be "Activity,".

 $^{^1\}mathrm{So}$ in original. Probably should be followed by a closing parenthesis.