

H.R. 4355, Identifying Outputs of Generative Adversarial Networks Act

As ordered reported by the House Committee on Science, Space, and Technology on September 25, 2019

By Fiscal Year, Millions of Dollars	2020	2020-2024	2020-2029
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	2	6	not estimated
Statutory pay-as-you-go procedures apply?	No	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

H.R. 4355 would require the National Science Foundation (NSF) to support research on manipulated digital content and information authenticity. The bill also would direct the National Institute of Standards and Technology (NIST) to create measurements and standards for the development of technological tools that examine generative adversarial networks (GANs), which are used to produce manipulated content.

Using information from the NSF, CBO estimates that implementing the bill would have no significant cost for the NSF because the agency is already carrying out the required activities through its existing grant programs. Using information from NIST, CBO estimates that the agency would require 10 additional employees at an average annual cost of \$175,000 each over the 2020-2022 period to establish a research program on GANs and similar technologies. The bill also would direct NIST and the NSF to report to the Congress on related policy recommendations. Based on the costs of similar tasks, CBO estimates that developing the report would cost less than \$500,000. In total, CBO estimates that implementing H.R. 4355 would cost \$6 million over the 2020-2024 period; such spending would be subject to the availability of appropriated funds.

The CBO staff contacts for this estimate are Janani Shankaran and David Hughes. The estimate was reviewed by H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.