

At a Glance

H.R. 4990, Election Technology Research Act of 2019

As ordered reported by the House Committee on Science, Space, and Technology on November 14, 2019

By Fiscal Year, Millions of Dollars	2020	2020-2025	2020-2030
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	*	108	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 2031?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

* = between zero and \$500,000.

The bill would

- Require the National Institute of Standards and Technology (NIST) to study voting systems and to establish and administer a grant program to fund the proposed Center of Excellence in Election Systems
- Require the National Science Foundation to award grants to fund research about threats to voting systems and the cybersecurity of those systems
- Require NIST and the Election Assistance Commission to update certification processes for voting systems and to provide technical assistance to state and local election officials on voting systems and cybersecurity

Estimated budgetary effects would primarily stem from

- Spending subject to appropriation on salaries and benefits, contracting costs, equipment purchases, and grants

Detailed estimate begins on the next page.

Bill Summary

Section 2 would authorize the appropriation of \$12 million each year over the 2020-2024 period for the National Institute of Standards and Technology (NIST). Under the bill, NIST would study voting systems, including online voting, election audits, and cybersecurity, and establish the proposed Center of Excellence in Election Systems. That center would study voting systems, test the security and usability of voting technologies, and foster partnerships among academic institutions, the private sector, and state and local election officials.

Section 3 would authorize the appropriation of \$10 million annually over the 2020-2024 period for the National Science Foundation (NSF) to award grants to academic institutions and nonprofit organizations for research on cybersecurity and other threats to voting systems and to establish at least one center for research and education on election systems.

Under section 4, NIST would establish and publish common data format specifications for auditing and voter registration and provide those specifications to the Technical Guidelines Development Committee of the Election Assistance Commission (EAC). NIST and the EAC would collaborate to update the process for certifying voting systems as required by the Help America Vote Act of 2002 and to conduct outreach to state and local election officials on voluntary voting system guidelines. NIST also would provide technical assistance to state and local governments on voting technology, risk assessments, and implementing cybersecurity and privacy standards.

Estimated Federal Cost

The estimated budgetary effect of H.R. 4990 is shown in Table 1. The costs of the legislation fall within budget functions 370 (commerce and housing credit) and 800 (general government).

Basis of Estimate

CBO assumes that H.R. 4990 will be enacted in 2020. CBO estimates that implementing H.R. 4990 would increase spending subject to appropriation by \$108 million over the 2020-2025 period. That estimate is based on information from the agencies and historical spending patterns for similar activities.

Implementing section 2 and section 3 would cost \$80 million over the 2020-2025 period—\$43 million for NIST and \$37 million for NSF—and \$30 million after 2025, assuming appropriation of the authorized amounts.

Using information from NIST, CBO estimates that NIST and EAC would need a total of 22 employees each year at a cost of \$250,000 per employee to fulfill the requirements in

section 4. In total, CBO estimates that it would cost NIST and the EAC \$27 million over the 2020-2025 period to implement those requirements, assuming appropriation of the estimated amounts.

**Table 1.
Estimated Increases in Spending Subject to Appropriation Under H.R. 4990**

	By Fiscal Year, Millions of Dollars						2020-2025
	2020	2021	2022	2023	2024	2025	
Section 2							
Authorization	12	12	12	12	12	0	60
Estimated Outlays	*	6	9	11	12	6	43
Section 3							
Authorization	10	10	10	10	10	0	50
Estimated Outlays	*	5	8	9	10	5	37
Section 4							
Estimated Authorization	*	6	5	5	6	6	29
Estimated Outlays	*	5	5	5	6	6	27
Total Changes							
Estimated Authorization	22	28	27	27	28	6	139
Estimated Outlays	*	16	22	25	27	17	108

Components may not sum to totals because of rounding; * = between zero and \$500,000.

Pay-As-You-Go Considerations: None.

Increase in Long-Term Deficits: None.

Mandates: None.

Estimate Prepared By

Federal Costs: David Hughes (for the National Institute of Standards and Technology)
 Janani Shankaran (for the National Science Foundation)
 Matthew Pickford (for the Election Assistance Commission)

Mandates: Rachel Austin

Estimate Reviewed By

Kim P. Cawley
 Chief, Natural and Physical Resources Cost Estimates Unit

H. Samuel Papenfuss
 Deputy Director of Budget Analysis