



## CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

December 10, 2009

### **H.R. 4061** **Cybersecurity Enhancement Act of 2009**

*As ordered reported by the House Committee on Science and Technology  
on November 18, 2009*

#### **SUMMARY**

H.R. 4061 would reauthorize several National Science Foundation (NSF) programs that aim to enhance cybersecurity (the protection of computers and computer networks from unauthorized access). The bill also would require the National Institute of Standards and Technology (NIST) to establish a cybersecurity awareness program and implement standards for managing personal identifying information stored on computer systems. Finally, the bill would establish a task force to recommend actions to improve cybersecurity research and development.

Based on information from NSF and NIST and assuming appropriation of the necessary amounts, CBO estimates that implementing H.R. 4061 would cost \$639 million over the 2010-2014 period and \$320 million after 2014. Enacting the legislation would not affect direct spending or revenues.

H.R. 4061 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments

#### **ESTIMATED COST TO THE FEDERAL GOVERNMENT**

The estimated budgetary impact of H.R. 4061 is shown in the following table. The costs of this legislation fall within budget function 250 (general science, space, and technology).

	By Fiscal Year, in Millions of Dollars					2010- 2014
	2010	2011	2012	2013	2014	
<b>CHANGES IN SPENDING SUBJECT TO APPROPRIATION</b>						
NSF Cybersecurity Research Grants						
Authorization Level	69	74	79	84	90	396
Estimated Outlays	9	41	61	71	79	261
NSF Cybersecurity Scholarships for Service						
Authorization Level <sup>a</sup>	4	20	22	23	25	94
Estimated Outlays	*	3	11	17	21	53
Other NSF Programs						
Estimated Authorization Level	87	87	87	88	89	438
Estimated Outlays	9	49	70	81	86	295
Subtotal NSF Programs						
Estimated Authorization Level	160	181	188	195	204	928
Estimated Outlays	18	93	142	169	186	609
NIST Programs						
Estimated Authorization Level	6	6	6	6	6	30
Estimated Outlays	5	6	6	6	6	29
Cybersecurity Task Force						
Estimated Authorization Level	*	*	*	*	*	1
Estimated Outlays	*	*	*	*	*	1
Total Changes under H.R. 4061						
Estimated Authorization Level	166	187	194	201	210	959
Estimated Outlays	23	99	148	175	192	639

Note: NSF = National Science Foundation. NIST = National Institute of Standards and Technology.

\* = less than \$500,000. Amounts may not sum to totals because of rounding.

- a. H.R. 4061 would authorize the appropriation of \$19 million for NSF Cybersecurity Scholarships for Service in 2010. NSF has received an appropriation of \$15 million for those scholarships for 2010. CBO expects that under the bill the agency could receive an additional appropriation of \$4 million to fund those scholarships in 2010.

## BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 4061 will be enacted by the middle of calendar year 2010 and that the necessary amounts will be appropriated each fiscal year. Estimated outlays are based on historical spending patterns for similar NSF and NIST programs.

H.R. 4061 would authorize appropriations for several NSF grant programs aimed at enhancing cybersecurity. The bill would authorize appropriations totaling \$396 million over the 2010-2014 period to improve research on cybersecurity. The bill also would authorize the appropriation of an additional \$94 million over that period to provide scholarships to students who pursue higher education related to cybersecurity and commit to public service after graduating. Finally, the bill would authorize such sums as may be necessary for activities related to improving cybersecurity, including constructing research facilities and enhancing cybersecurity training for faculty and students at colleges and universities. Based on information from NSF regarding the cost of conducting similar activities and assuming appropriation of the authorized and necessary amounts, CBO estimates that implementing the NSF programs authorized under the bill would cost \$609 million over the 2010-2014 period and \$319 million after 2014.

H.R. 4061 also would direct NIST to conduct a cybersecurity research program, establish standards and protocols to enhance cybersecurity, and to promote cybersecurity awareness and education. Based on information from NIST regarding the cost of conducting similar activities and assuming appropriation of the necessary amounts, CBO estimates that implementing those programs would cost \$29 million over the 2010-2014 period and \$1 million after 2014.

Finally, H.R. 4061 would establish a task force of academic and industry experts to advise the Office of Science and Technology Policy on issues related to cybersecurity. Based on information regarding the cost of funding similar activities, CBO estimates that carrying out this provision would cost \$1 million over the 2010-2014 period.

## **INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT**

H.R. 4061 contains no intergovernmental or private-sector mandates as defined in UMRA. The bill would benefit public institutions of higher education by authorizing grants for research on computer security.

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