



Legislative Bulletin.....February 7, 2002

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H.R. 3394—To authorize funding for computer and network security research and development and research fellowship programs, and for other purposes.

H.R. 3394— To authorize funding for computer and network security research and development and research fellowship programs, and for other purposes (Boehlert)

Order of Business: The bill is scheduled to be considered on Thursday, February 6th, under an open rule that provides for 1 hour of general debate with a motion to recommit with or without instructions. The bill is open to amendments.

Summary: H.R. 3394 would authorize \$878 million over 6 years for the National Science Foundation (NSF) and the National Institute of Standards and Technology (NIST) to create new and to expand existing grant programs for research on computer security. **H.R. 3394 outlines 12 ways in which these agencies are to increase research into computer security.**

The NSF would be authorized to, subject to appropriation:

- Award grants totaling \$233 million to institutions of higher education for basic research on enhancing computer and network security.
- Award grants totaling \$144 million to institutions of higher education to establish Centers for Computer and Network Security Research. These new centers will conduct research and train computer and network security researchers and professionals.
- Award grants totaling \$95 million to institutions of higher education to establish and improve degree programs in computer security and to increase the number of students pursuing degrees in computer security fields.
- Expand the activities of the Advanced Technological Education Program (established in 1992) to include improving education in fields related to computer and network security, at a cost of \$6 million.

- Establish a new program to award grants totaling \$90 million to institutions of higher education to “establish traineeship programs for graduate students who pursue computer and security research leading to a doctorate degree.”
- List “Computer Security” as a field of specialization under the NSF Graduate Research Fellowships program established in 1950.
- Take the “lead role” in fostering and supporting research on improving the security of networked information systems.

NIST would be authorized to, subject to appropriations:

- Establish a new program to assist institutions of higher education that partner with for-profit entities in long-term, high-risk research programs. It would also be authorized to create a new program to award post-doctoral research fellowships and another new program to award senior research fellowships to those engaged in cyber security research. The bill authorizes \$275 million for these three programs.
- Grant the Computer System Security and Privacy Advisory Board \$2.15 million to identify emerging issues in computer security and to disseminate its discoveries to the public.
- Conduct up to \$32 million of research on computer security under the National Institution of Standards and Technology Act.
- Conduct, in conjunction with the National Research Council of the National Academy of Sciences, a study of the nation’s vulnerable network infrastructure and make appropriate recommendations to Congress. \$700,000 would be authorized for this research.

Possible Concerns:

Some Members may be concerned that the federal government is further unnecessarily intervening in an area already being addressed by the private sector. CRS for example reports that, “the market for computer and Internet security (divided into hardware, software, and service providers) is large and growing. The CSI/FBI survey cites a 1999 International Data Corporation (IDC) estimate that the security software industry will grow from \$2 billion to \$7.4 billion by 2003 and the security hardware market will grow from \$500 million to \$1.9 billion by 2003. According to Redherring.com (*Picking the Locks on the Internet Security Market*, [http://www.Redherring.com], July 24, 2000), the security services market is expected to grow from \$7 billion to \$14 billion by 2003.” As the demand in the private sector grows, the private market will provide greater incentives for individuals to pursue careers in computer security. A simple internet search indicates numerous private companies, organizations and universities addressing computer security issues.

Some Members may also be concerned about duplicative federal programs related to cyber-security. For example, the federal government already funds the Software Engineering

Institute, a research and development center operated at Carnegie Mellon University that includes the CERT Coordination Center, a center of Internet security expertise. Furthermore on November 27 of last year the House passed H.R. 1259, the Computer Security Enhancement Act of 2001, which included the following provision:

Fellowships in computer security to college students would be authorized at **\$5 million** for each of fiscal years 2002 and 2003.

Some Members may be concerned that the high level of authorizations in the bill will result in federal funds being focused on supporting private / public research rather than implementing computer security programs for federal systems. For example, H.R. 1259, which passed the House last November only authorized a total of \$15 million for FY 2002 and 2003 for National Institute of Standards and Technology to assist federal agencies in protecting their computer networks, promote federal compliance with computer information security and privacy guidelines, and support federal responses to unauthorized access into federal computer systems.

Cost to Taxpayers: According to the CBO, this bill authorizes \$878 million over the 2002-2007 period, and “any amounts necessary to continue the fellowships and cooperative agreements at NIST through 2012,” subject to appropriations.

Constitutional Authority: The Science Committee in House Report 107-355 Part 1 finds Constitutional Authority under Article I, Section 8 of the Constitution (Powers of Congress), but fails to cite a specific clause.

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