

House Approves Bill to Create Department of Homeland Security; Refines Proposed R&D Components

(This analysis revises earlier AAAS R&D Funding Updates (August 12, June 21, 2002 [revised July 24]) on the R&D portfolio and organizational structure of the proposed DHS. The new sections of this update focus on various floor amendments offered during the House debate over the legislation that speak to the role of R&D in the DHS, and on the latest Senate version of DHS legislation. There are corrections in [] to the Senate provisions from earlier versions of the report. We apologize for the errors in earlier versions. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2003 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/rd>) in the “FY 2003 R&D” or the “What’s New” sections.)

Recent Developments (new to this version of the analysis)

On July 26, shortly before departing for the August recess, members of the House voted 295 – 132 to approve a bill (H.R. 5005) that would establish the **Department of Homeland Security (DHS)**. The vote was a major step toward implementing the plan outlined by President Bush on June 6 and fleshed out in June 18 proposed legislation to consolidate elements of several existing cabinet-level agencies and various independent agencies with the primary mission of preventing future terrorist attacks within the United States. Included under the new DHS umbrella would be such agencies as the Coast Guard, the Customs Service, the Federal Emergency Management Agency, and the Immigration and Naturalization Service; all told, the DHS would bring together some 170,000 federal employees and approximately \$35 billion in annual budgetary resources. The creation of the DHS is all-but guaranteed by the end of this year, but the details of this massive government reorganization must still be worked out this fall.

Prior to the final vote on the bill, several House floor amendments were approved to further clarify the role of R&D in the proposed DHS:

- An amendment offered by Representative Steve Israel (D-NY) to create an Advisory Committee for the Under Secretary for Science and Technology with the charge of making recommendations with respect to the activities of the Under Secretary for Science and Technology, including identifying research areas of potential importance to the security of the nation.
- An amendment offered by Representative Lynn Woolsey (D-CA) to create a Homeland Security Institute as a federally funded research and development center (FFRDC) whose research activities would include simulation and modeling to determine the vulnerabilities of the nation’s critical infrastructures; economic and policy analysis to assess the distributed costs and benefits of alternative approaches to enhancing security; and identification of instances when common standards and protocols could improve the interoperability and effective utilization of tools developed for first responders.
- An amendment offered by Representative Richard Armev (R-TX) to, among other things, establish a clearinghouse for information related to technologies that would further the mission of the DHS, including information for persons seeking guidance on how to pursue research proposals to develop or deploy technologies that would enhance homeland security.

Action on the bill now moves to the Senate, where complications over the issue of workers’ rights are sure to arise. Because of workers’ issues, the Senate was unable to complete floor debate on its version of the bill before its August recess. The House version of the bill would allow the White House to create a new civil service system for the DHS, affecting such areas as pay, job performance and labor-management relations. However, the draft currently in circulation authored by the Senate Governmental Affairs Committee would guarantee that all current civil service rights and protections remain intact and make it

more difficult for the president to remove workers from unions for national security reasons. For his part, President Bush has threatened to veto such a bill, saying that it erodes his authority to fight terrorism. Senate action on the bill will resume when its members return from recess on September 3.

The current Senate version of the bill contains provisions similar to the House bill **creating the position of an Under Secretary for Science and Technology**, missing from the Administration's proposal, to coordinate the department's science and technology programs and to oversee its R&D funding. The Under Secretary would also have broader responsibility for setting homeland-security R&D goals and priorities, coordinating homeland security R&D throughout the federal government, facilitating the transfer and deployment of technologies for homeland security; and advising the DHS Secretary on all scientific and technical matters. The Senate would also create a Homeland Security Science and Technology Council of representatives from all federal agencies involved in counterterrorism R&D to advise the Under Secretary on S&T issues and to coordinate government-wide R&D activities. [The Senate bill would allow the Under Secretary to create an S&T advisory panel composed of representatives from industry, universities, and other non-federal organizations. The Senate bill would create a number of offices under the Under Secretary for S&T, including an Office of National Laboratories, an Office of Risk Analysis and Assessment, and Office for Technology Evaluation and Transition, and an Office of Laboratory Research. The Senate bill would also allow DHS to contract with existing FFRDCs, such as the DOE national laboratories, or establish a new one, similar to the House's Homeland Security Institute proposal, to obtain independent scientific and technical support.]

The DHS R&D Portfolio (updated from earlier analyses)

The proposed DHS could fold in R&D programs from up to five existing departments (HHS, DOE, Commerce, USDA, and DOT). Precise R&D funding figures are not available because of the vague and continually shifting parameters of the proposal. While the original June 6 announcement suggested that DHS would have a \$3.4 billion R&D portfolio (AAAS estimate) out of a \$37.5 billion budget, making it the sixth-largest R&D funding agency, the legislation suggests a portfolio of \$2.3 billion or less (AAAS estimate) out of a slightly smaller \$35 billion budget, nearly all from programs currently in the National Institutes of Health (NIH). **Both the House and current Senate versions of the legislation, however, would have even less R&D, less than \$500 million, because they would keep bioterrorism R&D programs within NIH and CDC instead of transferring them to DHS.** DHS would be divided into four divisions, corresponding to its four main missions:

- **Information Analysis and Infrastructure Protection:** Although R&D would not be a large part of this division, the Administration, House, and Senate versions of legislation would all transfer the **Department of Energy's (DOE) National Infrastructure Simulation and Analysis Center (NISAC)** to DHS. NISAC is a partnership between two of DOE's national laboratories, Los Alamos and Sandia, both in New Mexico. NISAC has a budget of \$20 million in FY 2002 and performs R&D to analyze critical infrastructures and their vulnerabilities, and simulate infrastructure or biological attack scenarios. The **Department of Commerce's National Institute of Standards and Technology (NIST)** would contribute its Computer Security Division, part of the NIST laboratories, to DHS. The House would keep this division within NIST, while the latest Senate legislation would go along with the Administration proposal.

- **Chemical, Biological, Radiological and Nuclear Countermeasures:** This division would have primary responsibility for setting research priorities and conducting an integrated R&D program to enable the U.S. to respond to attacks using weapons of mass destruction. The Senate legislation would name this division the Directorate of Science and Technology. **This division would contain most of the R&D proposed for the new department.** The original June 6 announcement proposed that all of **DOE's Lawrence Livermore National Laboratory (LLNL)**, with a proposed budget in FY 2003 of \$1.2 billion, would move to DHS but in the June 18 draft legislation only parts of LLNL such as its Advanced Scientific Computing Research program and its Intelligence program and other programs as needed would move to DHS. Among other DOE programs, the Biological and Environmental Research program's microbial pathogens activities, and the national security and nuclear smuggling and other programs within Nonproliferation & Verification R&D would move to DHS. Because these programs are embedded within

larger programs, it is unclear how large these transfers would be, but combined they could total around \$100 million. Both the House and current Senate legislation would follow the Administration proposal for DOE programs.

The House and the Senate would both reject the Administration proposal to transfer to DHS the civilian biological defense research programs currently operated by the Department of Health and Human Services (HHS). The Administration proposal would fund bioterrorism-related R&D in DHS for work currently funded by the National Institutes of Health (NIH) along with some R&D at the Centers for Disease Control and Prevention (CDC; both are HHS agencies) with a proposed budget of \$2.0 billion in FY 2003. But the legislation would not transfer any employees or laboratories to DHS. Instead, DHS would transfer R&D funds directly to NIH and CDC for distribution through their existing grant and laboratory infrastructures. DHS would have the authority to set the bioterrorism research agenda in consultation with HHS. Nearly all of the NIH R&D funds would go through the **National Institute of Allergy and Infectious Diseases (NIAID)** except for funds for construction of biosafety laboratories in Buildings and Facilities. **The House-approved legislation and the latest Senate version of the legislation would keep bioterrorism R&D funding and priority-setting in HHS,** only specifying that DHS would have a strong role in setting the research agenda.

The other affected department under this mission could be the **U.S. Department of Agriculture (USDA).** Its **Plum Island Animal Disease Center** off Long Island, New York, with a budget of \$25 million and 124 federal employees, would be transferred to DHS. The House legislation would concur with the Administration, but the Senate legislation is silent on Plum Island. The House version of the legislation would also transfer some activities of DOD's Chemical and Biological Defense Program to DHS.

[The Senate legislation would create a new research agency, the **Security Advanced Research Projects Agency (SARPA)** to fund high-risk, high-payoff R&D toward revolutionary homeland security technologies. SARPA would also fund development work to accelerate homeland-security technology development and to facilitate the rapid transfer of research and technologies to the development of working products. SARPA, modeled on DOD's existing Defense Advanced Research Projects Agency (DARPA) would manage a portfolio of extramural research. SARPA's R&D activities would be funded through a new **Acceleration Fund for Research and Development of Homeland Security Technologies** under SARPA control. The Senate legislation would authorize the Fund at \$200 million in FY 2003, but the funds would have to be appropriated in other legislation.]

- **Border and Transportation Security:** This division would be by far the largest of the four in terms of budget and personnel, and would integrate federal government operations aimed at securing U.S. borders and transportation systems. It would fold in the Immigration and Natural Service, the Customs Service, the Coast Guard, the Animal and Plant Health Inspection Service (APHIS) of USDA, and the recently created Transportation Security Administration (TSA). This division would inherit these agencies' small R&D programs, including the Coast Guard's (\$24 million in FY 2003), the TSA's aviation security R&D (a preliminary estimate of \$47 million in FY 2003), and APHIS's R&D portfolio (\$29 million in FY 2003). The House and Senate would go along with these Administration proposals.

- **Emergency Preparedness and Response:** This division would coordinate all federal assistance in response to disasters (including natural disasters) and domestic attacks. There would be no R&D programs within this mission.

Although the proposed DHS would have enormous impacts on the federal government and especially on goods and travelers crossing U.S. borders, the impact on scientists and engineers would be minimal. Few federal scientists and engineers would be affected except the small number of USDA, NIST, DOT, and DOE or DOE contractor employees proposed to be transferred. The new priority-setting powers of DHS, however, would mean that NIH bioterrorism research priorities would be set with strong input from DHS.

Next Steps and Possible Impacts

When Congress returns in September, both the House and the Senate will be on a fast track to approve DHS legislation. Although the original goal of creating DHS by September 11 will not be met, the Senate hopes to pass its version of DHS legislation that week; the House-Senate conference may be delayed by differences between the House, Senate, and President Bush on key provisions such as workers' rights. If the conference proceeds smoothly, DHS legislation could be signed into law by the end of September.

AAAS will continue to monitor the DHS proposal and its implications for federal R&D as it moves through Congress, and will update this analysis as events warrant. (Further AAAS R&D Funding Updates on the AAAS R&D Web site will provide up-to-date information on R&D in FY 2003 appropriations, including the eventual fate of the Department of Homeland Security proposal.)

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