

## Aftermaths

**E**lections in the United States supply the timing for an odd kind of respiratory cycle. The hyperventilation of the preparation phase lapses, after the votes are counted, into the deep breathing of satisfaction or regret. Whichever it is, the postelection pause often offers opportunities: for putting new energy into old programs, in the expectation that the climate is better; or for creating solutions to problems that have arisen too suddenly to have been dealt with before.

Surely that is the case here, after an election that took place only a little more than a year after one war began and perhaps only a few weeks or months before a new one starts. During the postelection week, there was an interesting 10th reunion of some of the members of the Carnegie Commission on Science, Technology, and Government. The commission had made a number of recommendations for infusing science advice into the policy process, and the reunioners looked at two things: (i) which had succeeded and which had failed, and (ii) what had changed in the world during the intervening decade. The short answers are: (i) some successes, but a number of misfires; and (ii) nearly everything.

Two failures were singled out as particularly disappointing. The commission had recommended ways to improve the integration of science and technology into U.S. government international policy-making circles. By and large, that has not been accomplished despite notable (though possibly transient) successes at the State Department and a few other places. And there has been only limited uptake of the commission's recommendation that universities develop research and teaching programs focused on science in government. (In this area, the reunioners noted, much credit should be given to the American Association for the Advancement of Science for the Congressional Fellows program, which achieves some of the same aims, as well as the White House Fellows program, which does so in part.)

Among the changes, of course, three recent ones dominated the reunion discussion, and these new circumstances offer opportunities as well as challenges for the scientific community. First, homeland security, and the appropriate way to involve science and technology in the decision-making in the new Department of Homeland Security, head the list. Second, there will be new leadership in the Senate Commerce Committee, the one that deals with major science and technology issues. Finally, the Higher Education Act is soon up for reauthorization. The convergence of these raises some interesting possibilities; here are some things that might be done.

First, examine the new Department of Homeland Security as an opportunity to build strong technical leadership into a vital government function. It would seem reasonable to appoint undersecretaries to the mandated positions in Science and in Intelligence who have appropriate science backgrounds and could contribute to policy decisions about hazard detection and amelioration, immigration, and public health (epidemiology and microbiology), which are all topics that invite the use of scientific resources.

Second, begin to combine security issues with developing energy policy and the fact of environmental change. The new department must take an interest, along with the State and Defense Departments, in these two forces that combine to raise the ante on energy independence. We need to reduce dependence on Middle Eastern oil and also to contain fossil fuel emissions to retard climate change. Sound scientific advice will emphasize conservation and efficiency improvements, as well as research on less carbon-intensive substitutes, as part of a strategy that will clearly be important in the national interest of the United States and its friends.

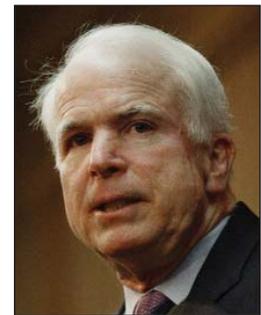
Third, consider, as the Higher Education Act nears reauthorization, new means of increasing science and technology training for people who may enter decision-making roles in the policy sector. There is a historical model: The National Defense Education Act trained a generation of people who became public servants. A loan program in which scientific preparation was a required component would help redress the present deficit in "triple-threat" policy-makers: people who combine deep knowledge of a region, appropriate political experience, and sound scientific training.

Finally, the chairs of key committees in the newly configured Congress offer a hope for support of such measures. Congressman Sherwood Boehlert is a knowledgeable and effective leader for science in the House. He will now be joined on the Senate side by John McCain, who has had a long interest in scientific affairs. Together, they offer a real opportunity for collegial and capable oversight of those new administration initiatives—and there will be a number—in which science and technology will play a major role.

**Donald Kennedy**



**Boehlert**



**McCain**

# Science

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