istration Regulations, in any revision of the Export Administration Act, which is now before Congress. Moreover, the DOD was authorized by Congress last year to deny Freedom of Information requests for scientific and technological data that would be subject to export control.

What's more, say Wallerstein and McCray, the Federal government has not developed a reliable means "for a net assessment of the damage to US national security from losses occurring through open scientific communication. . . . But the fact remains that major changes in US technology policy are being considered and decided on the basis of incomplete—and possibly erroneous—information on the extent and seriousness of the loss of scientific and technological information." In effect, Wallerstein and McCray contend, instead of raising "tall fences around narrow areas" to restrain the outflow of US science and technology to the Soviet bloc, as the Corson panel advocated, the government is throwing up walls compulsively around much of the scientific terrain.

Corson described the situation in his House testimony on 24 May. "My panel believed that the number of gray research areas where some form of restriction could be justified is very small," he said. "Now, there appears to be growing interest by government agencies in extending the concept of grayness to ever more areas—areas designated as 'critical' or 'sensitive' or 'emerging' . . . . It appears to me that at a time when our scientific enterprise needs maximum vigor, it is being impeded by a growing set of over-restrictive controls. If present trends continue, it may well be that administration of the gray-area concept is unworkable. In that case, only a black and white solution is possible: completely open research and classified research." In a black and white system, with the gray areas remaining completely open, said Corson, science and technology should prosper, but government concerns about leakage of technology would most likely persist, so that export regulations would be imposed, "with unfortunate consequences."

Dangers. Among the consequences Corson foresees: "The major research universities are likely to abandon research fields where classification is imposed, both because classification would impede progress and because classification is inconsistent with the academic environment; the case has not been made to the universities that there is a clear and present danger that demands classification of research on their campuses." The use of export regulations is most likely to result in excluding foreign nationals from taking part in research at universities and industrial laboratories, he said. Regulations developed to control the export of goods, "things that can be seen and felt and counted," said Corson, are not readily adaptable to seminar discussions, where foreign nationals may be present, or research projects that may or may not produce critical technical data, or classrooms with foreign nationals in attendance or table-talk among faculty or grad students, with foreign nationals there. On the subject of foreign nationals in US science and engineering, Corson told the congressmen the number of foreign citizens was increasing in PhD programs and junior faculty jobs: "As long as the flow of such people is assured, we need not worry about the quality . . . of our research institutions," he stated at the House session.

Under questioning by Representatives Doug Walgren of Pennsylvania, chairman of the House Subcommittee on Science, Research and Technology, and Dan Glickman of Kansas, a member of the Subcommittee on Investigations and Oversight, Martin asserted that the proposed policy would apply to all research funded by DOD at universities and in industry. "In those settings, MCTL and the Militarily Emerging Technologies List have no standing for classification purposes—and were never meant to have. The issue is now resolved. Classification will be determined on a project-by-project basis. Dr. DeLauer and I are 100% in synch on these matters." They ought to be, because it was Jay Keyworth at OSTP who was the prime mover in the DOD policy decision, having decided that it was time for DOD to "fish or cut bait" on the sticky subject.

At MIT, Gray says about the new policy: "The Pentagon was either unwilling or unable to accept the recommendations of the Corson panel, which we considered to be a workable middle ground." DOD's Leo Young argued that the Corson criteria for gray areas were "excellent conceptually but impractical for use in developing operating procedures at the working level," because they left too much discretion to military contracts officers.

"It's clearly too early to say that the proposed policy will result in more classification of research—a situation that could lead to a serious loss of science and technology at many leading universities and a serious loss of talent of foreign graduate students in that research," Gray says. "I want to believe we will operate under the rule of reason in these matters." —IG

Knapp resigns, Bloch named NSF head

President Reagan nominated Erich Bloch, vice president for technical personnel development at IBM, on 6 June to succeed Edward A. Knapp as director of the National Science Foundation. Homesick for Los Alamos, where he will return to his research and family, Knapp submitted his resignation in May—only 13 months after he was confirmed by the Senate amid acrimonious charges that he had sought to "politicize" the NSF by firing two top executives at the agency (PHYSICS TODAY, July 1983, page 60). In a rare *mea culpa* on Capitol Hill, Knapp admitted he had indeed asked for the resignations to assemble his "own team."

BLOCH

It turns out that Bloch was in the process of being appointed to one of the jobs that Knapp left vacant all those months—the post of deputy director. Born in Germany and educated in Switzerland, Bloch earned a bachelor's degree in electrical engineering from the University of Buffalo in 1952 and spent his entire career with IBM. He managed the Stretch computer project at Los Alamos in the late 1950s and early 1960s, then headed the solid-logic technology program for the System-360 computer. He serves as chairman of the Semiconductor Research Cooperative, a group of leading computer and electronics firms that supports advanced research in universities and shares results. He is a member of the National Academy of Engineering and a fellow of the Institute of Electrical and Electronics Engineers.

Neither a scientist nor an academic, he is bound to raise eyebrows—and possibly hackles—before his confirmation hearings. Though NSF was conceived by an engineer, Vannevar Bush, it is considered the bastion of basic science at universities. This year, however, the agency's organic act was amended to place engineering on an equal footing with science—though attempts to add engineering to the foundation's name were foiled in Congress. —IG □