

NSF: Out of the frying pan

While Congress hurried toward its August recess, the National Science Foundation apparently escaped from the legislative frying pan, and maybe the fire. In quick succession last week, the Bauman amendment requiring prior Congressional review of all NSF grants (SN: 4/19/75, p. 253) was defeated and a lengthy set of hearings on how well the Foundation was handling its business ended without major surprise or alarms. The major accomplishment of the exercise was probably a new appreciation on the part of bureaucrats of just how sensitive the public has become regarding how its money is spent, and on the part of some Congressman, just how complex is the business of organizing America's vast research establishment.

The final death-knell for the Bauman proposal came on the last day of business before the recess, as the House passed a conference report on the NSF budget that omitted the controversial amendment. But some of the issues that prompted Congressional ire in the beginning remained: For at least the next fiscal year there will be no funding for implementation of new NSF-sponsored curricula, and two reports designed to review NSF educational programs (SN: 6/28/75, p. 412) have still not been finished. Later hearings will certainly be held on science education.

In the meantime, many of the more general criticisms of how the Foundation operates were aired in hearings before the House Subcommittee on Science, Research and Technology, chaired by Rep. James Symington (D-Mo.). Nominally, the hearings represented Congressional oversight on NSF's "peer review" system—the practice of submitting grant proposals to a team of disinterested scientists for evaluation. What developed, however, was a discussion of several long-standing grievances over whether the Foundation tends to perpetuate an "Old Boys Club" of favored recipients—to the exclusion of young or unconventional scientists—and whether the public is being adequately informed about where its money is going.

Acting as a sort of self-appointed prosecutor, Rep. John B. Conlan (R-Ariz.) charged that peer review is an "incestuous buddy system" that often serves as "window-dressing to legitimize a program manager's preconceived support for grant applications." By acting in secret, "it's no trick to rig the system," he charged, and demanded as an alternative that the entire peer review procedure operate with "total openness."

NSF Director H. Guyford Stever responded that most of the peer review process is open, noting that under new guidelines grant applicants could see verbatim copies of reviewers' comments and that annual lists of reviewers would be made public. He defended, however, the practice of keeping the names of authors

of specific reviews confidential in order to assure candor and willingness to volunteer for the time-consuming process. Specifically, he said he would not reveal names to individual Congressmen, but would release information to appropriate committees. In any project so vast as consideration of 21,000 proposals, using some 34,000 scientists as reviewers, mistakes will be made, Stever said, but peer review remains "a great strength in our processes," and does not generally preclude innovative thinking.

NSF Deputy Director Richard C. Atkinson presented tables showing that three states—New York, California and Massachusetts—received considerably more research dollars than would be expected based on their populations. But when the number of outstanding scientists resident in these states was considered, funding was even smaller than would have been expected.

Among several experts offering an intermediate point of view was William D. Carey, publisher of SCIENCE magazine and executive officer of the American Association for the Advancement of Science. "We ask too much" of peer review, he said, as the volume of applications has increased and funding has sagged: "It is not a fail-safe procedure." The principal advantage of peer review now, Carey says, comes in the first round of proposal screening, "but it does not absolve the Government program manager from full responsibility for the decision to fund or reject a proposal."

Carey offered several suggestions on how peer reviewing might be improved: To provide oversight, the Federal Council for Science and Technology might be asked to gather statistics on how evenly and fairly agencies select reviewers. Each agency itself should have a selective quality audit of peer review procedures. A "manual of instructions" could provide administrators with guidelines on standards and objectives of peer review. Finally, incentives should be built into the system to encourage reviewers to look for "new and promising scientists . . . and for ideas which involve genuine risk-taking."

As Symington interpreted the testimony he had heard, witnesses "overwhelmingly agree that some form of peer review should continue," though "a rich variety of modifications have been proposed by various witnesses to deal with problems as they perceived them." After committee members and staffers have sifted through the extensive testimony, some recommendations may be expected to bring about changes in the way NSF conducts its peer reviews. Symington noted that several witnesses had called for new auditing procedures and that while there was a "relative scarcity of negative evidence"

against NSF, its functioning must not be taken for granted.

Though NSF emerged from its long, hot summer before Congress relatively unscathed, the experience, in Carey's words, may make "an awful lot of administrators very, very thoughtful." □

Two more pesticides suspended by EPA

Evidence that two other pesticides are carcinogenic has led the Environmental Protection Agency to move to suspend manufacture and distribution of chlordane and heptachlor. This adds the two chlorinated pesticides to the growing list of such chemicals (including DDT, aldrin and dieldrin) that have drawn EPA legal action.

Studies have shown that heptachlor causes tumors in laboratory mice, is concentrated through the food chain, can be found in 70 percent of human food samples tested in the United States and in 95 percent of human adipose tissue samples and mother's milk. Chlordane contains about 10 percent of heptachlor. The pesticides are used mainly on corn crops and in home gardens.

Velsicol Chemical Corp., sole manufacturer of the chemicals, has requested a hearing on the EPA suspension move. EPA Administrator Russell E. Train says suspension would prevent the production of more than 38 million pounds of the pesticides during the 18 months it will take to finish the formal cancellation hearings. A decision is expected on the suspension order in Administrative Law Court within the next two months. □

Major health legislation passed

Last week Congress passed the first major health-care legislation of the past several years, at least as far as dollar expenditures are concerned. The new law authorizes grants of \$2 billion to states for public health service programs, family planning, community health centers, migrant worker health centers, rape prevention, treatment of drug addicts and alcoholics and the education of nurses.

The legislation is also significant in that it was passed over the President's veto. Ford had vetoed it because he considered it inflationary. A number of the President's advisers argue that the nation's number one problem is inflation, not health. Most Congresspeople apparently do not agree. Rep. Paul G. Rogers (D-Fla.), for example, says that the law will actually save the American public money by preventing health problems that, left untended, could cost billions of dollars. According to Rep. Tim Lee Carter (R-Ky.), the entire legislation will cost "no more than one Trident submarine." □