controls. Some of the topics addressed, e.g. the DES algorithm, are intended for U.S. government activities and . . . unless clearances or export licenses are obtained . . . or there is some special exemption, the IEEE could find itself in possible technical violation of the ITAR. . . As an IEEE member, I suggest that the IEEE might wish to review this situation, for these modern weapons technologies, uncontrollably disseminated, could have more than academic effect.

Meyer enclosed sections of the ITAR rules, and the IEEE, after replying that it had determined its publications were exempt, forwarded the letter and enclosures to the Information Theory group scientists. However, in doing so, the IEEE Director of Technical Activities, Nirendra P. Dwivedi, appeared to accept the Meyer letter and its chilling interpretation at face value and put IEEE's implicit approval on Meyer's interpretation of the law. Dwivedi's letter to the scientists urged them to clear any papers they planned to present with their companies. If they had no other way to clear their work, "the authors should refer the paper to the Office of Munitions Control, Department of State, Washington, D.C., for their ruling."

The scientists were predictably startled by the sudden revelation that they could not publish in their field of study without first consulting the State Department. Says the Information Theory group's president Fred Jellinek, "I don't believe a law can say such a thing, because it would make scientists guilty until proven innocent."

Other scientists, such as Hellman of Stanford and Rivest of MIT, turned the problem over to their universities' lawyers and opted to lie low until the lawyers finished looking into the issue. Hellman says he is 99 percent sure he will participate in the October meeting—un-

Briefing

FTC Sues AMA over Code of Ethics

After nearly 2 years of pretrial legal skirmishing, a big battle has begun between the Federal Trade Commission (FTC) and the American Medical Association (AMA). Leading the charge for the FTC are five young attorneys from the Bureau of Competition, who claim that provisions of the AMA code of ethics have inhibited medical innovation and led to higher health costs. The objects of the attack are AMA bans on advertising and on contractual arrangements that physicians may make with third parties.

The testimony before assistant chief administrative law judge Ernest Barnes has been notably undramatic, but the impact of the suit on the 200,000-member AMA and on health care in the U.S. may be far-reaching. The charges themselves are considered to be the most serious leveled against the AMA since it was convicted of a criminal antitrust conspiracy to restrain competition in 1943.

The FTC seeks nothing less than a complete cessation of professional restrictions of advertising, even of ads that seem false or deceptive to the AMA. The agency also wants an end to AMA bans on physicians' contracts with lay organizations and nonphysician health professionals. Both remedies would dramatically alter the picture of U.S. health care.

To defend itself from such changes, the AMA has engaged the legal services of Newton Minow, a former chairman of the Federal Communications Commission (FCC) and no stranger to regulatory law. The defense Minow has prepared will emphasize the voluntary nature of AMA membership and will contend that its advertising ban protects the public from charlatans.

On the other side, witnesses for the FTC will relate tales of harassment by AMA's constituent (state and county) societies of those who refuse to tow the AMA line. Two doctors from Connecticut and Massachusetts, for example, will testify about sanctions applied against them after local newspapers published articles about their use of Kelman Phaco-Emulsifier-Aspirators, new machines used in cataract surgery. Another doctor from West Virginia will testify about his attempt to establish a partnership with a physician's assistant, and the AMA's advice to him that the partnership would be unethical.

The suit is only one manifestation of growing FTC interest in possible anticompetitive behavior by professional and trade associations. In the health area alone, the FTC already has issued a complaint against the American Dental Association and is looking into physician control of Blue Shield plans, restrictions placed on Health Maintenance Organizations by various groups, and AMA control over the supply of physicians and health care services through definitions of practice and school accreditation.

The agency's interest in professional groups was aroused by a decision of the U.S. Supreme Court 2 years ago in Goldfarb *v.* Virginia State Bar. In the decision, the Virginia State Bar was held in violation of antitrust laws for ethical principles preventing lawyers from regularly charging less than the bar's schedule of minimum fees.

As a lawyer for the FTC put it, "Before *Goldfarb*, we didn't think we had the jurisdiction—now that we do, we'll be taking a good look at all of these associations and their high-flown 'ethical' principles."

Public Gains Access to Pesticide Safety Data

In an important move, the House agricultural oversight subcommittee on 15 September unanimously accepted a proposal to require pesticide safety data filed with Environmental Protection Agency (EPA) to be available for disclosure to the public. To the delight of environmentalists, the subcommittee rejected an industry-sponsored plan to restrict severely the data's availability. Environmentalists have sought access to such data to verify—or challenge—industry safety claims.

Currently, companies registering pesticides with the EPA under provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) have the right to refuse requests for the registration data under a provision protecting "trade secrets." On several occasions, pesticide companies have claimed that environmental impact data fall under the aegis of trade secrets; in a recent case involving the pesticide chlorobenzilate, the EPA and the Environmental Defense Fund went to court to claim that the safety data are not trade secrets.

The subcommittee gave chemical companies proprietary rights to manufacturing data, but they rejected a proposal by Representative Charles Thone of Nebraska to allow only "qualified scientists, upon request and for good cause" to review and not copy the safety data. Under the new amendments to FIFRA passed by the subcommittee, the secrecy limitation on registration data will apply only to requests from private companies with financial interests in the information, and safety data, excluding any information on deliberately added inert ingredients, will be available to the public.

less, that is, the Stanford lawyers find some legal problem or if Stanford will not defend him should one later arise.

Rivest found himself in an embarrassing situation, since the August 1977 *Scientific American* had published a very detailed description of his scheme for an unbreakable code (also described in *Science*, 19 August 1977, p. 747) with an offer that he would send his paper to anyone who asked. At the time he was warned by Meyer and the IEEE, Rivest was being deluged with requests for his paper. Many of the requests were coming from abroad. "If I were more of a skeptic, I'd think I was being set up," Rivest told *Science*. Rivest is not sending the paper out until after MIT's lawyers have determined whether ITAR has any application in Rivest's case.

Until this point, the scientists had heard only rumors about who Meyer was and what might be his motives. But *Science*, investigating the incident, determined that J. A. Meyer of Bethesda, Maryland, in fact works for the NSA. *Science* contacted Meyer's office after locating his number in an NSA directory. But neither Meyer, when he was reached, nor officials of the agency, would confirm that he worked there. However, after *Science* determined that an NSA employee had written the letter and had so informed the NSA public affairs office, the agency responded with an official statement. Said spokesman Norman Boardman "I can state for the agency that we had nothing to do with that letter . . . . Meyer wrote that letter as a private citizen. But with respect to any letter of that nature this agency would not prompt anyone to do it." (Despite his apparent knowledge of Meyer and the letter, however, Boardman would not comment on whether he had seen the

Briefing

In a major bonus for the chemical industry and the American Farm Bureau Federation, the subcommittee also approved a provision for conditional registration of new pesticides before safety data are complete if the pesticides are similar to existing compounds. Passage of the provision reflects an effort to bail out the EPA's pesticide enforcement program for the second time since responsibility for pesticide safety was transferred to EPA from the Department of Agriculture in 1972.

Then, EPA was directed to register 1400 active pesticidal ingredients approved for 45,000 different uses, with a deadline for completion of October 1976. After an initial extension granted by Congress in 1975 until next month, it became apparent that the EPA had failed abysmally in keeping to its schedule—that safety testing of existing pesticides will take at least another decade.

A recent National Science Foundation study, for example, found that EPA had safety data on fewer than half of the registered pesticides, and that crucial data on the carcinogenic potential of many of the chemicals were missing. Moreover, only one-quarter of the pesticides in current use initially examined by the EPA were certified as completely safe.

The subcommittee, in attempting to streamline the review process, chose to lighten EPA's work load by easing the requirements for pesticide approval and by transferring primary responsibility for enforcement of regulations on pesticide abuse from EPA to the states.

Future stops for the bill are the full House Agriculture Committee, which may vote on it this week, the House floor, and a House-Senate conference committee. Both environmentalists and industry expect it to remain as approved by the subcommittee. One factor in the mood of Congress: recent disclosures of evidence linking the soil fumigant pesticide dibromochloropropane (DBCP) to sterility in workers at an Occidental Chemical plant in California. DBCP was originally scheduled for EPA review last winter, but the review was held up because of the backlog there.

More Fingers in the RANN Pie?

Some 6 years ago, after goading by the Nixon White House to produce more tangible returns on the investment of research dollars, the National Science Foundation (NSF) created a Research Applications Directorate, more commonly known as RANN, for Research Applied to National Needs. RANN, which now commands a $67-million budget, has been controversial in basic research circles. Last month the National Science Board, after lengthy study, voted to drastically restructure the RANN program so as to bring it under new guidance by NSF basic researchers. Another aim of the restructuring is to strengthen the program's ties with the groups that ultimately may be able to use the knowledge and technology which it produces.

Moreover, RANN has been given a new name, the Science and Engineering Applications Directorate. Its issue-oriented divisions (resources, environment, and productivity) were scrapped in favor of two policy-oriented divisions (problem-oriented basic research and problem-focused research applications). NSF basic research directorates will provide substantial guidance for these two divisions. RANN's exploratory research division was transferred into a new division of applied research, and the intergovernmental science-incentives division was left intact.

In October, Alfred Eggers, the director of RANN until his resignation in June, will become the director of Lockheed's Palo Alto research laboratory. Eggers served as a special assistant to NSF director Richard Atkinson while Atkinson weighed the merits of alternate RANN reorganization plans suggested by a special NSF task force. The new Science and Engineering Applications Directorate is chaired by Jack Sanderson, a physicist who had been director of the NSF office of planning and resources management.

Sanderson hopes to blunt some past criticism that the targets of RANN's research were too diffuse, and the outcomes inappropriate. He plans to encourage input from basic researchers and technology users in major decisions on policy priorities. "RANN's division of productivity is an example of the shotgun approach that we've discarded," Sanderson said. The division has funded studies ranging from labor arbitration to solid waste collection.

Despite concern by Eggers that the new plan may amount to management by committee—"a lot of fingers in the pie"—sources on the Hill and in the Carter Administration are generally optimistic about the future of applied research. Sanderson has a dozen tentative new ideas for applied research, including analysis of the effects of stress on man and society, the biological impact of chemical compounds, architecture and design for human living, production automation, and the global carbon cycle.

NSF director Atkinson also has pledged up to $10 million in discretionary funds to help get the new research under way, augmenting the directorate's $63 million 1978 budget.

R. Jeffrey Smith