

antee the right to inspect any suspect installation on 48 hours notice, although there have been suggestions that it may be prepared to modify this condition slightly.

U.S. officials say they are awaiting Soviet reaction to the proposals with interest. ■

DAVID DICKSON

OMB and Congress at Odds Over Cancer Risk Policy

A long-simmering dispute between Congress and the White House over the interpretation of cancer risks has come to the boil once again. As a result, a House subcommittee voted in July to cut \$5.4 million from the operating funds of the Office of Management and Budget (OMB). The gesture was a slap at OMB for its alleged meddling in scientific risk studies.

On 22 July, a subcommittee headed by Representative John Dingell (D-MI) announced that it was looking into the work of OMB's Office of Information and Regulatory Affairs. Dingell claims that, as a favor to industry, this office—headed by Wendy Lee Gramm, wife of Senator Phil Gramm (R-TX) of Gramm-Rudman fame—has been leaning on regulatory officials to downplay cancer risks. Dingell persuaded a House appropriations subcommittee on 24 July to “defund” Gramm's office in the budget. The issue has not yet come before the full appropriations committee.

The main offense cited by Dingell's staff involves some guidelines on risk assessment recently prepared by the Environmental Protection Agency, apparently seen by OMB as unduly cautious. Drafted in 1984, the new rules are in accord with an earlier White House study of chemical hazards, conducted for the Office of Science and Technology Policy. EPA intends to use the rules to standardize five areas of risk assessment within the agency, including estimates of the threat of cancer and genetic damage.

EPA had its scientific advisory panel review the rules last year. It also solicited public comment. The rules were revised and sent to OMB for final approval in April. There they sit. As of this writing, OMB has neither given its approval nor put its objections in writing, although OMB staffers have raised questions orally. In a telephone interview, one EPA official sounded exasperated: “It is time to reach a resolution,” he said. Dingell charges that OMB is stalling and trying to kill the section on cancer risks, which it sees as overprotective.

Meanwhile, in a speech in May, Wendy Lee Gramm indicated that her staff is “considering developing more specific guidance for performing risk assessments.” She stressed the need to emphasize costs and benefits of regulation, to let policymakers and not technical people set margins of safety, to consider negative as well as positive studies, and to use data from all animal tests—“not just the species that shows the highest estimate of risk (unless there is reason to believe that one species is a better predictor of human risks). . . .”

Dingell accuses OMB's policy analysts of blundering into areas in which they are not qualified to make judgments. As one federal scientist put it, “OMB is playing bully on the block.”

Gramm has responded vigorously to the criticism. In June she set out a new policy designed to let the public see more of the interplay between OMB and the agencies it reviews. All petitions to OMB on agency



John Dingell. *Investigating OMB's regulatory office.*

rules are to be made public, as are written comments from OMB to the agencies. Whenever OMB holds a meeting with industry officials on a proposed rule, the proposing agency now must be invited to attend.

In a telephone interview, Gramm denied that OMB is preparing substitutes for EPA's risk assessment guidelines. She did say, however, that, “We may want to do some follow-on guidelines to OSTP's work” at a later date. If that happens, the new guidelines will not come from OMB but from an interagency task force. Of EPA's cancer guidelines, she said: “Basically, we are reviewing them; nothing is being held up. . . . The staff doesn't have any real problems

with the science, but we want to make sure policymakers have a sense of what the uncertainties are.” She would like risk estimates to include an easy-to-understand summary of the assumed “conservatism.” For example, a risk assessment for drinking water might point out that it rests on the assumption that a person will drink 2 quarts of water from the worst well in the neighborhood every day for 70 years.

Asked if OMB is seeking to rewrite the cancer policy adopted by the Occupational Safety and Health Administration in 1980, Gramm said: “OSHA has proposed looking at its guidelines. . . . We're not in the business of rewriting things. We are a policy oversight group.” ■ **ELIOT MARSHALL**

Britain's Royal Society Condemns Sex Bias in Math Teaching

Britain's top scientific body, the Royal Society, has found “no convincing or conclusive evidence” that the poor performance of girls relative to boys in mathematics can be adequately explained by differences in innate ability. The conclusion is contained in a report prepared jointly by the society and the Institute of Mathematics and its Applications that has just been published in London.

In contrast to those who put forward genetic explanations, the report says that the main reason for the difference in performance lies more in the attitude of parents, teachers, and examination boards who continue to portray mathematics as a “male” subject. The result, it says, is that many girls deliberately underachieve in mathematics, adopting a negative attitude toward the subject and associating success in mathematics with an “undermining of their femininity.”

Although similar complaints have been voiced by women's groups for years, it is the first time that such a strong complaint about sex biases in mathematics teaching has come from a body as prestigious as the Royal Society. “The result is that it is unlikely to be construed as a purely political statement,” says the society's education officer, Gill Nelson.

The report admits that the number of girls taking mathematical subjects has increased in recent years, but adds that the trend needs to be “accelerated,” given the importance of mathematics in both everyday and professional life. Problems begin in primary schools, it says, where boys and girls achieve

the same overall performance in mathematics, but "both teachers and pupils regard mathematics as a subject at which boys are likely to achieve a higher overall performance than girls, and teaching styles and expectations are modified accordingly."

The trend is reinforced at secondary schools, where teachers "unconsciously project a prejudice against girls by rewarding only achievements that are appropriate to the pupil's sex." For example, girls are rewarded for doing well on computational tasks, which they are generally found more capable of at a certain stage in their development, but in contrast boys are rewarded for solving problems.

Other barriers include the orientation of examination questions toward males, the fact that most heads of mathematics departments in schools are men, and toys that are marketed with a bias that reinforces sexual stereotyping and role playing.

Nelson acknowledges that recent evidence suggests that some mathematical abilities may be sex-related. "But it cannot possibly explain the statistics [of relative performance]," she said. "You cannot say that just because someone is a girl, therefore she is likely to be less good at mathematics." ■

DAVID DICKSON

New Animal Regulations Causing Scientists Pain and Distress

The new federal regulations for the care and use of laboratory animals are causing considerable financial pain, and, in the present budget climate, will inevitably hamper some research, according to scientists who spoke last month at a seminar on the issue.

Two researchers offered dim views of the effects of the regulations. Barbara C. Hansen, physiologist and psychologist at the University of Maryland, said that although the regulations have been in place "in spirit" since 1976, requirements for new staff and changes in facilities are going to cost her institution up to \$1.1 million to begin with, and \$500,000 annually. "We have no source for such funds at this point in time," she said.

Although the impact of the regulations will depend on how they are interpreted in the months to come, Hansen said their apparent rigidity makes for problems. For example, she is doing research on obesity in monkeys. Now that a whole range of cage sizes has been mandated for primates, the

rules mean that as the animals gain weight they will have to be put in "baboon-size" cages, which are in fact too large for their needs. The university is spending \$160,000 this year on new caging.

Dennis M. Stark of Rockefeller University offered a rough annual cost estimate of \$50,000 to \$100,000 per campus for compliance with the new regulations. One of the big problems, he said, is that under the new rules animal care and use committees are required to review all research protocols involving animals, not just those protocols that have received funding, which increases the volume by a factor of 4.

Other than cost worries, one of the main concerns that has been voiced by scientists has been whether they are going to be kept continuously off balance by further changes down the line. "The question is will those regulations change again 5 years from now," said Hansen. Federal officials at the meeting, which was sponsored by the AAAS, the Scientists Institute for Public Information, and the Association of American Universities, said they did not think so.

Charles McCarthy, director of the Office for Protection from Research Risks at the National Institutes of Health said that "some institutions are dropping out, the rest are scrounging around to find the money, but we feel we have no choice. . . ." He reported that, judging from the rate of renewals of animal assurance statements, perhaps 75 to 100 small research institutions have been forced out of the animal business by the new policy. But he expressed confidence that the government is pursuing a moderate policy in view of the fact that the volume of complaints from both sides—scientists and animal activists—is about equal. McCarthy added that full compliance is not expected immediately and that it will probably be 2 to 3 years before everyone has fallen in line.

Richard L. Crawford of the Department of Agriculture's Animal and Plant Health Inspection Service reported that APHIS is still struggling with the regulations for implementing new amendments to the Animal Welfare Act, which are designed to be complementary to the new regulations. These include the requirement for exercise for dogs, which Crawford said is being defined as "socialization and the opportunity for motion," and the perplexing call for measures to promote the "psychological wellbeing of primates."

This latter mandate is "very complex," said Crawford, particularly in view of the fact that 40 to 50 species, all with different needs, have to be taken into account. Hansen added she had "grave concern" about that requirement, since "no methods exist

today to measure the psychological wellbeing of children" much less monkeys. Even within species, she said, "individual temperaments vary widely."

Franklin Loew, dean of the veterinary school at Tufts University, said that in the long run he didn't think the regulations would constitute "a body blow or even a serious blow" to basic research, "providing time is given to adjust to the new reality."

The threat to science from "animal rights" groups, who oppose all use of animals in research, is still growing, however. Some old-line animal groups, such as the Humane Society of the U.S. and the Society for the Prevention of Cruelty to Animals, have taken a philosophical turn in the animal rights direction. Loew said a "litmus test" for the intentions of animal activists is whether they are lobbying not only for regulatory changes but also for more funds for compliance. Unfortunately, he said, "few organizations who have lobbied for changes have also lobbied for money," which means that many of them want to cost animal research out of business. ■ CONSTANCE HOLDEN

Time Inc. Buys Science Digest

Time Inc., which recently purchased *Science 86* from the AAAS, has now bought the name and subscription list of *Science Digest*, the only other general science magazine of its kind, from the Hearst Corporation. *Science Digest*, which had a paid circulation of about 575,000, was closed by Hearst; its subscribers will be offered a choice of another Time Inc. publication. Subscribers to *Science 86* are being offered *Discover*, Time's own popular science magazine.

For the past couple of years, the popular science magazine business has been hit by significant financial losses due to a sharp decline in commercial advertising. For example, *Science Digest* had 156 ad pages during the first half of 1985 but only 84 during the first 6 months of this year. Maintaining high circulation has also been a problem for many of the general science magazines. Hearst had been actively looking for a buyer for *Science Digest* for some time.

Time's *Discover*, with losses in the millions, has not been immune from the negative trends in the business but the publishing giant has decided to hold out a while longer in the hope that things will turn around. By eliminating the competition and thereby increasing its own readership, at least for now, Time hopes to be able to keep *Discover* alive. ■ BARBARA J. CULLITON