everybody in the U.S. population, however, regardless of his or her immigration status. Bureau officials maintain they have a constitutional requirement to include all those resident in the United States. They also point out that it would be a statistical nightmare to sift out those here illegally.

Last February, however, 42 members of Congress, together with the states of Pennsylvania, Kansas, and Alabama, filed suit to force the Census Bureau to remove illegal aliens from the population base used for congressional apportionment. The states represented in the suit are generally those likely to gain a seat if illegals are excluded.

A prime mover behind the suit is the Federation for American Immigration Reform (FAIR), a Washington, D.C.–based organization. Roger Conner, the president of FAIR, put the issue this way in comments at the meeting: "Should foreigners who enter and remain in our country in violation of our basic immigration laws be entitled to representation in Congress?" Others pointed out, however, that the census figures are also used for purposes such as planning for schools and social services that require as accurate a count as possible.

From a procedural standpoint, a requirement to exclude illegal aliens would cause the Census Bureau serious problems. One possibility would be to include on the short census questionnaire an item asking whether the respondents are American citizens. The noncitizens could then be checked against records kept by the Immigration and Naturalization Service (INS) of those who are legally resident in the United States. Those found to be illegal could be removed from the calculations for congressional apportionment but kept in the overall census figures used for other purposes.

But Passel pointed out that the answers to the citizenship question would be highly unreliable. In previous surveys, he said, some 40% of recent immigrants who declared themselves to be naturalized Americans in fact were not citizens. Another problem is that because the INS no longer requires all aliens who are legally resident in the United States to register each year, the records would be incomplete. An immediate practical issue is that the census forms are about to go to the printer (it takes a year to print all 106 million) and they do not include a citizenship question.

The Justice Department has filed a motion to dismiss the suit on procedural grounds. A similar suit against the 1980 census was in fact thrown out in 1979. A hearing on the matter was held in federal court in Pittsburgh last week, and the judge promised a ruling by the end of March.

■ COLIN NORMAN

Richard S. Nicholson to Head AAAS

"Science should be seen as an investment, not an expenditure," says Richard S. Nicholson, a chemist and 18-year veteran of the National Science Foundation who has just been named executive officer of the AAAS. Nicholson notes, for example, that investment in research is important to maintaining U.S. competitiveness, but believes that investment in training is equally important for the long run.

"There are people who believe we can hold off on our investment, who say for instance that 'The stars will be there next year.' But the astronomers won't be if we don't train them," Nicholson observed during a recent interview with *Science*.

Education and "human resources" for a scientifically and technologically sophisticated future are among Nicholson's top concerns, as is a desire to make use of AAAS' interdisciplinary membership.

Nicholson graduated in chemistry from Iowa State University in 1960 and earned his Ph.D. at the University of Wisconsin, Madison, in 1964. He was acting deputy director of NSF from 1983–1985, when he was also staff director for the foundation. He comes to AAAS from his post as head of NSF's directorate for mathematical and physical sciences.

Nicholson will take up his new job by 15 April. He succeeds Alvin Trivelpiece, who left on 1 January to be director of Oak Ridge National Laboratory.

■ BARBARA J. CULLITON

Biotechnology Rules Wither in OMB

Are the Environmental Protection Agency's (EPA) long-awaited rules governing the release of engineered microorganisms dead? For all intents and purposes, say some environmental groups, they may as well be. This is because outgoing administrator Lee Thomas failed to get the rules published before he left office, despite the urgings of the agency's Biotechnology Science Advisory Committee.

Environmentalists now fear that the rules, which would govern microorganisms developed for commercial purposes, could be delayed several more years. Groups such as the National Wildlife Federation (NWF) and the Environmental Defense Fund hoped that Thomas would publish the rules over the objections of the Office of Management and Budget (OMB). It is unlikely, they concede, that incoming administrator William Reilly, will be willing to wage such a battle anytime soon.

For many researchers in industry and the university sector, this may be good news. The draft regulations are supposed to support the coordinated framework established by the White House's Biotechnology Science Coordinating Committee back in 1986 (*Science*, 6 June 1986, p. 1189). The rules, however, have been stuck in OMB since last May. Industry sources say the OMB has stifled them, allegedly because they are too burdensome.

The rules would expand the definition of commercially related releases of altered organisms that would require regulatory approval. Research conducted by universities would be considered commercial when it involves a joint venture or other financial relationship with a private company. At present, companies are allowed to conduct limited research tests under Toxic Substances Control Act rules.

Officials of the Association of Biotechnology Companies (ABC) and the Industrial Biotechnology Association, which mounted campaigns against the draft rules, argue that there should not be a presumption of risk with engineered organisms. Rather, regulations should be based on demonstrated risk, otherwise small companies and university researchers may be burdened with costly reporting requirements.

Despite the setback handed them by OMB, Margaret Mellon of NWF says her organization and other environmental groups are not giving up their fight to have genetically altered microorganisms screened by EPA before they are released in outdoor tests. Bruce Mackler, general counsel of ABC, predicts that "the battle is going to shift to Congress."

Indeed, members of the House Science, Space, and Technology Committee and Senator Max Baucus (D–MT), chairman of the Senate Environment Subcommittee on Hazardous Wastes and Toxic Substances, may draft bills to give EPA stronger regulatory authority. Baucus introduced legislation late in 1988 to regulate releases of genetically engineered organisms.

■ MARK CRAWFORD