SCIENCE AND TECHNOLOGY CENTERS

NSF Poised to Continue Novel Program

What began a decade ago as a deliberate attempt to shake up business as usual at the National Science Foundation (NSF) is about to become a routine part of the $3.2 billion agency. NSF officials appear ready to continue the $60-million-a-year Science and Technology Centers (STC) program after the latest round of reviews by outside experts concluded that the 24 centers, with their multimillion-dollar budgets and dozens of investigators, are doing good work and pose no threat to NSF's bread-and-butter small grants to individual scientists. Although officials are still weighing how to conduct the next round of competition, there is strong support for allowing the current centers to recompete and for soliciting proposals more frequently.

"The program has been a big success, and I fully expect it to be continued," says Richard Zare, chair of the National Science Board, NSF's oversight body. On 21 November, the board was briefed by the chairs of two panels that recently evaluated the program: COSEPUP, the National Academy of Sciences' Committee on Science, Engineering, and Public Policy (*Science*, 16 August, p. 866), and the STC Advisory Committee, whose report was completed in August but not made public until the meeting. "Right now we're discussing the proper focus, such things as the balance between research and education and whether computer networks allow for the possibility of a virtual center. The goal is to make the next iteration just as successful as the current ones," says Zare. A final decision is expected in February.

The centers program was a response from former NSF director Erich Bloch in 1986 to what many U.S. officials saw as a decline in the country's ability to compete with Japan and Europe. "It began in controversy," recalled William Brinkman of Lucent Technologies in New Jersey, chair of the COSEPUP panel, in his presentation to the board. "It was part of a shift from the Cold War to economic competitiveness as the justification for federal funding of science." But not everyone bought that argument at the time. Many scientists feared that the program, originally planned as a network of 100 centers, would steal money from grants to individual investigators. Some also worried that NSF was mistakenly promising that scientists could generate short-term results with clear commercial value.

As a result, the program has been continually under the microscope, beginning with a 1987 academy panel chaired by Zare that fleshed out Bloch's original idea. The COSEPUP and STC panels are the latest in a long list of reviewers that includes the National Academy of Public Administration, NSF's inspector-general, and the Boston-based consulting firm of Abt and Associates, not to mention site visits and annual evaluations by program officials. "This is easily the most reviewed program per capita in NSF's entire portfolio," says STC panel chair W. Carl Lineberger, a chemist at the University of Colorado, Boulder.

Although the reviewers looked at the program from various perspectives, none found evidence for those original concerns. The program has not grown beyond the two rounds of awards made in 1989 and 1991, and it comprises a tiny fraction of NSF's $2.4-billion-a-year research budget. The centers carry out research in a range of fields, from particle astrophysics to microbial ecology, and their bundling of projects—with annual funding of $2 million to $2.5 million a year from NSF—is seen as complementary to the much smaller grants to individual investigators that make up the bulk of NSF's portfolio. Moreover, basic research has remained paramount. While some, such as the Center for Advanced Cement-Based Materials at Northwestern University, have obvious and direct applications to industry, NSF officials believe its work is no less important to advancing science than what is being done at the Center for Astrophysical Research in Antarctica, whose staging ground is the South Pole.

Both the COSEPUP panel and the STC advisory committee argue that the program should remain roughly at its present size and that current centers, whose awards run for 11 years, should be allowed to compete in the next round. "I don't see how you could keep them out," says Lineberger. "And I'm not worried about the need to sunset them—no grant goes on forever." At the same time, both Lineberger and Brinkman say they would be "surprised" if more than a handful of existing centers emerged victorious in the next round because of the stiff competition.

If the science board gives its go-ahead, NSF officials must then decide on the appropriate level of funding for the program and draw up the rules for the competition. Lineberger's panel suggests a foundationwide solicitation to draw scientists from all fields and to encourage multidisciplinary ideas. And it says new centers should be created more frequently to maintain interest in the program in the scientific community: It suggests that seven or eight awards be made every 3 years, with each award running for 10 years.

–Jeffrey Mervis

NATIONAL ACADEMY OF ENGINEERING

Ex-President Settles for $687,500

The fight between the National Academy of Engineering (NAE) and Harold Liebowitz, its ousted president, appears to be over. This week, NAE officials paid Liebowitz $687,500, and, in return, he relinquished any claim to the job he held until June. Combined with almost $300,000 in legal fees, the price tag for peace will reach nearly $1 million.

Liebowitz, a former dean and now professor of engineering at George Washington University, was elected on a platform of shaking up the organization and giving members a greater voice in its affairs. But Liebowitz quickly lost the confidence of NAE's governing council, which worried that he was leading the academy into financial distress and jeopardizing relations with its sister, the National Academy of Sciences (NAS).

The settlement erases the prospect of a long and costly legal battle (*Science*, 5 July, p. 22). "It could have gone on one, two, or maybe 3 years," says NAE Chair Alan Lovelace. "The real cost would be the disruption of business at the academies." The president, who serves a 6-year term, receives approximately $250,000 annually plus benefits, and NAE sources say that Liebowitz, who held office for less than a year, had demanded $1.9 million in lost salary and benefits. Liebowitz could not be reached for comment.

Although the settlement allows the NAE and its acting president, William Wulf, to get on with their business, coming up with the cash is no simple matter. Insurance will cover the bulk of the payment to Liebowitz, and NAE hopes to recover about $250,000 from overhead charges on work for its primary customer—the U.S. government—which is done by the National Research Council (NRC), the operating arm of the NAE, NAS, and the Institute of Medicine. "Legal expenses are legitimate overhead," says Wulf.

But NAE officials say it is not clear whether the government will agree to accept a higher overhead rate to cover payments made under the settlement. If not, the money will have to come from the NAE Fund, a $40 million pot generated by private contributions. (Under the current settlement plan, the fund would provide only $25,000.) The source for the legal fees has yet to be identified, according to academy officials.

Although Lovelace expects some members to criticize the settlement, he believes that it was the right decision. "You can take the moral high ground and say it is terrible to settle," Lovelace says, "or you can recognize the practical business view that this is the prudent thing to do."

–Andrew Lawler