

# Stuffing Bricks and Mortar into Research Funding

Northeastern University in Boston is supposed to get \$13.5 million from the Air Force for "very high speed integrated circuit research." The university, however, has no such research program. It plans to use the money to build a library.

From the Army's basic research budget, the University of Nevada at Las Vegas (UNLV) is to receive \$3.5 million for "computer research." At this stage, the university doesn't even have a doctoral-level program in computer science. UNLV intends to put the money toward a new computer system to go into an engineering building yet to be constructed.

Wichita (Kan.) State University does have an "aviation research" program, which is to receive \$5 million; that money, however, is to come from the Army's budget. Says Frederick Sudermann, executive assistant to the university's president, "I think the Army was just as surprised as anybody to find that in their budget."

These are some of the consequences of last-minute additions to a spending bill passed by Congress in the closing days of its 1985 session. That bill, now law, directs the Department of Defense (DOD) to spend part of its current research budget to fund projects at 10 specific universities. Although the instructions in the House report accompanying the spending bill refer to research, most of the funds, seemingly randomly distributed among several DOD offices, are to be used for equipment purchases and building construction. Included are three projects that had been rejected in an earlier Commerce Department appropriations bill.

DOD officials object to the earmarking of funds for specific universities. Donald A. Hicks, under secretary for research and engineering, testifying earlier this year before the Senate defense appropriations subcommittee, argued that granting these "set-asides" would probably violate the "competition in contracting" act passed by Congress last year. According to this law, DOD must ensure that all universities have a chance to compete for research contracts. Moreover, DOD rules and procedures strictly limit how much of these research and development funds may be used for construction.

Hicks reportedly told the subcommittee that DOD cannot move ahead with these grants unless new legislation specifically permits such actions. On top of that, DOD officials say, the set-asides, totaling \$65.6 million, represent a significant fraction of the Army, Air Force, Defense Nuclear Agency and Defense Advanced Research Projects Agency research budgets.

Meanwhile, seven senators, who were instrumental in funding eight of the university projects, last month wrote directly to Defense Secretary Caspar W. Weinberger, calling for quick processing and distribution of the funds. In their letter, a copy of which was obtained by SCIENCE NEWS, the senators state, "Breakthroughs in scientific research that will result from many of these projects are expected to improve dramatically the ability of our military to deal effectively with certain threats they will undoubtedly face in the future." The letter emphasizes that the funds are meant for research and makes no mention of construction.

This debate has stalled all of the university projects. In Northeastern University's case, says an aide to Sen. Edward M. Kennedy (D-Mass.), one of the seven who wrote to Weinberger, "there are some legal obstacles at this point, and we're trying to work out a way to meet those legal requirements." According to the aide, Northeastern hopes that when its negotiations with the Air Force are completed, most if not all of the money can be used for construction.

At UNLV, "we're still waiting for dollars," says Les Raschko, the university's information services director, "and we're waiting for direction from the federal government."

The Rochester (N.Y.) Institute of Technology (RIT) plans to use its \$11.1 million "research" grant for a new building to house its microelectronic engineering program. This will be primarily an undergraduate teaching facility.

"We need more support for the program," says M. Richard Rose, RIT president. "We think it is necessary, and we stand by our proposal." Rose, who once worked at the Pentagon, concedes that a wide range of rules govern DOD expenditures. However, he notes, ways around these rules have probably been found in the past. "I think that the intent of Congress one way or another will be realized," he says.

Funds — some for buildings, some for equipment, some for research — are also destined for the University of Kansas in Lawrence for "neurotoxin research" (\$2 million), Oklahoma State University in Stillwater for "research" (\$1 million), the Oregon Graduate Center in Beaverton for "semiconductor research" (\$1 million) and Syracuse (N.Y.) University for "computer research" (\$12 million).

Some universities are now trying to meet DOD requirements. "Congress gives conflicting guidance on lots of things," says Michael Crow of Iowa State University in Ames. "Sometimes, those of us in the trenches — in the agency or

the university — are left to pick up the pieces. In picking up the pieces, we're trying to make the best of a difficult and confusing situation."

Iowa State is now working with Air Force officials to develop an acceptable plan for \$6.5 million in microelectronics research. "It's not our intention to build any buildings," says Crow. "It is our intent to develop a proposal that meets all of their technical standards and is part of their normal review process."

Cornell University in Ithaca, N.Y., refused to accept \$10 million that had been assigned to the university for purchasing a specific supercomputer manufactured in Oregon. That proposal had come from Sen. Mark O. Hatfield (R-Ore.). Instead, Cornell and other eligible universities will submit proposals and compete for the money. At the moment, Cornell is the only applicant.

Cornell's refusal, however, is an exception. Many universities complain that the federal government provides no funds to help universities build laboratories for ongoing programs, forcing them to take drastic measures to get what they need. Some university officials argue that merit or peer review doesn't apply to "bricks and mortar" in the same way that it does to basic research proposals (SN: 8/3/85, p. 71). Congress is the appropriate place for decisions about economic development, says Rose. "Our elected representatives can be called upon to make those kinds of judgments."

Speaking for Kennedy, an aide says, "We need to help those who are trying to build up their programs." Otherwise, deserving but smaller colleges lose out to the nation's top universities in the competition for resources.

"There may be lots of ways to justify many of these projects, certainly from the point of view of local interests," says Robert Rosenzweig, president of the Association of American Universities in Washington, D.C., "but it's hard to justify most of them on the grounds of any national interest in the research or the training they are going to do."

Now the whole matter rests in Weinberger's hands. DOD has several options. It could insist on a legal review. A more likely approach would be for DOD either to return the money to Congress unspent or to go to Congress with a plan for spending the money in another way. All the possible actions are fraught with political difficulties.

Says Rosenzweig, "I think that the way research funds are used is an important matter. It ought to be important to the Defense Department, too. I hope they'll stand up and fight for it." — I. Peterson