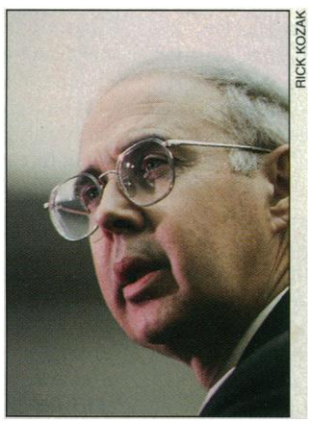
ACADEMIC FACILITIES

Walker Tells Universities to Look for Help From Industry

Five years ago, the chemistry department at Franklin & Marshall College in Lancaster, Pennsylvania, decided it needed to replace its old nuclear magnetic resonance (NMR) instrument. But it couldn't afford the $500,000 price tag for a new, 300-megahertz machine. A few miles away, R&D officials at the $3 billion Armstrong World Industries, maker of floor and ceiling tiles, faced a similar problem: They needed a more powerful NMR for product development, but couldn't justify buying their own. So when Joseph Hennessey, Armstrong's vice president and director of innovation, called up Claude Yoder, chair of the college's chemistry department, to discuss potential research collaborations, the two men didn't need Monty Hall to make a deal. The key elements: Armstrong would pay for half of a new 300-megahertz NMR, to be located on campus, and, in exchange, the college would run the company's samples.



RICK KOZAK

If Representative Robert Walker (R–PA), the new chair of the House Science Committee, gets his way, that kind of deal could become much more common on U.S. campuses. In the past few weeks, Walker has been warning universities not to count on much help from the federal government in solving what the National Science Foundation (NSF) has estimated is a $10 billion problem: the need to upgrade aging academic labs and instruments. Instead, Walker says universities should look to industry. And, to help entice companies into making deals with universities, Walker says he will propose legislation to give them a federal tax credit for their investments in academic facilities.

"If you stick with the federal government, you will be very disappointed," Walker told a symposium on academic facilities held last month at the National Academy of Sciences. "But if you think about leveraging our $6 trillion economy, then you may be able to come up with answers." That suggestion is, however, reawakening old concerns on campuses about just how closely universities should work with industry. And some industrialists doubt that even the inducement of tax credits would be enough to encourage major investments.

University officials are well aware of the first part of Walker's message: The Republican Congress and the Clinton Administration have already begun to trim an academic facilities program run by NSF. The Democratic Congress created the program in 1988 and more than doubled its budget, to $250 million, in 1995. But the House has voted to take back $132 million (*Science*, 3 March, p. 1259), and the Administration has proposed spending only $100 million next year. Walker says even that sum is unlikely to be approved by Congress.

Not too long ago, college officials might have recoiled in horror at Walker's suggestion that they should make up the loss of federal money by aligning their institutions with industrial research agendas. Indeed, NSF decreed in 1983 that universities should not use federally funded equipment to become testing labs for private industry, reflecting a fear among academics that tight research budgets might tempt universities to sell their souls to industry. But times have changed. "The need is great, and we will do whatever we can to find the money," says Terry Hartle, vice president of the American Council on Education. Hartle says ACE would prefer an expanded NSF program, but he calls Walker's proposal "an interesting idea that's worth exploring."

"If you stick with the federal government, you will be very disappointed."
—Robert Walker

Even NSF has become more relaxed about whether companies are using federally funded facilities: "I don't ask that question of grantees," says Nat Pitts, who runs NSF's academic infrastructure program. "And we would have no way of knowing if they did [share facilities]." In fact, matching funds—usually involving industry—are an essential piece of NSF's current facilities program. Last year, for example, NSF gave F&MC $1.5 million toward a planned $6.5 million renovation of its general sciences building on the understanding that the college would raise the rest; to date, the largest single donor—providing $250,000 over 5 years—has been Armstrong Industries. Although the company says the money is part of its good-neighbor policy and comes with no strings attached, Suzanne Woods, the college's vice president for academic affairs, says the pledge was made "with the full understanding that the research being done [in the renovated building] would be relevant to the company."

Such cooperation would simply strengthen the already close arrangement between F&MC and Armstrong. "We don't even know what they are doing—it's proprietary," says Yoder about his department's NMR work for Armstrong. "There are some disadvantages—we can't always run what we want when we want it," he admits, "but that's outweighed by the benefit of having such a sophisticated machine."

Still, the trend makes some university officials uneasy. "There are problems as well as benefits" in having industry invest in academic facilities, says Cornelius Pings, president of the Association of American Universities. "It might be useful in some areas, where it matched an institution's priorities. But universities must be careful not to sell themselves for proprietary purposes."

Industry officials also have some doubts—although for different reasons. Walker says that captains of industry have told him they are excited about financing campus research labs in exchange for tax credits, but some corporate research directors say they can't imagine their companies investing heavily in academic facilities to carry out corporate research. "Companies don't want to put money into buildings," says Roland Schmitt, former chair of the National Science Board, president emeritus of Rensselaer Polytechnic Institute in Troy, New York, and retired chief scientist at General Electric. "They want to support students, who they can later hire, or faculty research, which they can use. Buildings are way down the list."

Walker remains enthusiastic, however. Last week, he told a gathering of science journalists (see p. 1587) that he hopes to make such investments eligible for R&D tax credits. Although bills to make permanent an R&D tax credit that expires in June are pending in both houses of Congress, no one has come up with a source of revenue to offset the estimated cost of the credit—$6 billion over 5 years—to the U.S. Treasury. Walker has not broached his idea with any of the bills' sponsors, says his press secretary, Melissa Sabatine, but that could be done during or after upcoming hearings on the bills. In the meantime, say university officials, they will continue looking for ways to pay for leaky roofs and modern research equipment.

–Jeffrey Mervis