THE CHRONICLE
of Higher Education

Research

January 13, 2011

Scientists Fault Universities as Favoring Research Over Teaching

By Paul Basken

The United States' educational and research pre-eminence is being undermined, and some of the chief underminers are universities themselves, according to articles this week in *Science* and *Nature* magazines.

Universities are aggressively seeking federal dollars to build bigger and fancier laboratory facilities, and are not paying an equal amount of attention to teaching and nurturing the students who would fill them, scientists say in the articles.

"It's a Ponzi scheme," said Kenneth G. Mann, a professor of biochemistry at the University of Vermont, whose concerns were described by *Nature*. "Eventually you'll have a situation where you're not even producing the feedstock into the system."

A group of researchers, led by two biology professors, Diane K. O'Dowd of the University of California at Irvine and Richard M. Losick of Harvard University, made a similar point in a commentary in *Science*. Teaching is suffering at universities because the institutions prize research success above all other factors in promotions, they said. The job of educating students offers little reward, and instead "often carries the derogatory label 'teaching load,'" they wrote.

Those faculty members raise the issue at a time of growing anxiety for universities and their research enterprises. Republicans took control of the House of Representatives this month, after party leaders promised during last year's election campaign to cut nondiscretionary federal spending to 2008 levels. That is likely to mean deep budget cuts at the federal science-financing agencies. The National Institutes of Health, the largest nonmilitary provider of research money to universities, could see its budget fall 9 percent below its anticipated 2011 level of $31.3-billion.

And universities have been seeing even more dire budget scenarios at the state level, the traditional foundation of their governmental support. Those worries, and the hope among universities that the

federal government might take up more of the load from the states, helped encourage the National Research Council, a private federally chartered institution, to form a study panel of 22 university and corporate leaders. The group, due to issue a report this spring, has been drafting arguments for why the federal government should recognize university science as a national asset deserving of more resources.

Skewed Priorities?

That is a worthwhile argument, Mr. Mann said. "Research is essential" to the overall success of a university and the country, he said.

At the same time, Mr. Mann said, universities have become so obsessed with using federal dollars to build new research facilities that they've skewed their priorities, leading both faculty members and students to see the competition for federal money as their main professional mission.

Mr. Mann, who served as chairman of biochemistry at Vermont from 1984 to 2005, said grant money made up about 22 percent of his salary as an assistant professor at the University of Minnesota back in 1970. Now it's 60 percent, as he pulls in about $3-million a year in federal support, and administrators at Vermont are asking him to push it even higher.

"Nobody has ever asked me how good my papers were, and I think you would find that universally true," he said, "They basically say, Well, how many research dollars are you bringing in?"

Some university leaders have recognized the potential for a financial crash if the federal government eventually proves itself unable or unwilling to support the number of university research labs it has already helped to build. Robert M. Berdahl, who plans to retire in May as president of the Association of American Universities, asked Congress in 2009 to help determine the optimal size of the nation's university-research enterprise, giving impetus to the current study by the National Research Council.

Mr. Losick said his commentary in *Science* had put teaching into that equation because it questioned how research universities balanced research and teaching. The authors recommend that universities take steps that include helping their science faculty members improve their teaching practices, and basing tenure and promotions on teaching skills.

Mr. Mann said he saw a direct correlation between universities' promoting and paying for those teaching skills, and improving the quality of science research. Among other problems, he said,

universities rely heavily on the integrity of their faculty to produce trustworthy science. "As the pressures become higher for people to generate grant income to support their salaries and their enterprise," he said, "then the pressure for the absence of integrity gets higher."

The health of universities, and the overall U.S. economy, depends on finding that right balance, he said. "There's a real risk at the present time to have a system that's not stable."