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Millions of federal dollars fund U. research and construction

By Stu Woo

Brown may be a private university, but the federal government still chips in a good deal of its operating budget.

In the fiscal year 2004-2005, Brown received over \$135 million in research funding, according to Regina White, associate vice president for research administration. About 75 percent of that total came from federal organizations.

Although the federal government contributed over \$100 million to Brown research, none of that money was given directly to the University. That figure represents the sum of all the grants that the federal government gave to a few hundred Brown professors last year.

It is up to individual professors to apply for federal research grants, said White, whose department oversees research administration and the grant search and oversight process.

The application process goes like this: A professor comes up with an idea for a research project. If he or she decides that federal funding is needed, the professor contacts the Office of Sponsored Projects, which helps professors find suitable federal agencies for funding. The professor then writes a grant proposal. The application then goes to the Office of Sponsored Projects, which checks to see if all the paperwork is filled out correctly. The office then officially submits the application to the federal agency.

At the federal level, the proposal is evaluated a panel of academic peers. The panel gives the proposal a score and then compiles a percentile ranking based on that score.

If the proposal scores high enough and is accepted, the agency will award the professor a grant, which can range from hundreds to millions of dollars. The federal agency may provide the professor with a specific research request. If not, the professor can conduct the research as he or she sees fit. Grant recipients must submit reports to the agency, usually on an annual basis, and the government can cut off funding at any time if it uncovers any misuse of funds.

If the proposal does not score high enough to receive a grant, two things can happen. The peer review panel will send the professor feedback on the proposal. Then, some federal agencies, such as the National Institutes of Health, allow professors to submit up to two revisions of the proposal. If the revised proposal scores high enough, a grant is awarded. However, other federal agencies, such as the National Science Foundation, do not allow professors to rewrite their proposals. In this case, if the proposal is denied, the professor must completely rewrite his or her proposal for resubmission.

The application process is extremely competitive.

"The success rate at Brown is about 30 percent," White said.

White estimates that there are currently a couple of hundred professors currently receiving federal grants. A query on the National Institutes of Health Web site found that the NIH has awarded 213 grants to Brown professors for the 2005-2006 fiscal year.

White said that of the \$135,734,192 in research funding the University received last year, 45 percent came from the Department of Health and Human Services, which includes the National Institutes of Health; 13 percent from the National Science Foundation; 8 percent from the

Department of Defense; 6.6 percent from the Department of Education; and 2.7 percent from NASA.

Appropriation Funds

In addition to funding the research of Brown professors, the federal government contributes a smaller amount of money to Brown infrastructure projects.

"Every year, we get two or three million (dollars) in that kind of appropriation money," said Kevin Wheeler, director of federal relations in the Office of Community and Government Relations. "That's for things like a building or large machine that don't fit in the competitive research grant process."

This type of appropriation is helping to fund the construction of the Life Sciences Building, which is projected to cost between \$92 and \$94 million.

Wheeler said this type of funding comes from the Rhode Island congressional delegation. Each spring, researchers at Rhode Island colleges and universities submit a list of proposals to the delegation. The delegation then decides which proposals are most important and tries to obtain federal funds for the projects.

"The delegation is very supportive of our efforts," Wheeler said. Sen. Jack Reed, D, R.I., is on the Senate Education Committee, and Sen. Lincoln Chafee, R, R.I. is influential in the majority party - both beneficial in securing funds for Rhode Island universities, he said.

Wheeler stressed that Brown is not unique in receiving grants and appropriation funds; nearly every university receives some sort of federal aid. Wheeler estimated that Brown ranked around 100th in the nation in receiving federal funds last year.

Frustrations and Rewards

While federal grants for university research are beneficial for many reasons, there are also several problems with the application process. Associate Professor of Computer Science David Laidlaw '84 Sc.M. '86 cited his own grant application as an example.

Laidlaw was recently awarded a grant for the current fiscal year to develop tools to analyze "white matter variation" in the human brain. While he was ultimately satisfied to receive the award, he said it was a long and inefficient procedure.

"This has been a five-year process," he said.

Laidlaw originally applied for the current grant in 2002. It was to be a renewal of a grant for research he started 13 years ago. However, his application was rejected and he spent much of the past three years revising the proposal. The revision was also rejected, but just barely; Laidlaw's proposal scored in the top 20th percentile, but only proposals with scores in the top 18th percentile received grants.

The professor then submitted a second revision of the grant, which scored in the top 11th percentile. However, around the time that his second revision was scored, the NIH decided to retroactively raise the cutoff percentile for grants to around the top 20th percentile. As a result, Laidlaw received a federal grant for his research project - based on his previous proposal.

"I thought that was bizarre," Laidlaw said.

Laidlaw, who teaches a class about grant proposal writing, said there were many flaws in the grant application process.

"The funding of the less good version is a weakness of the process," he said. He also disliked that the NSF did not allow for proposal revisions. But he found some strengths in the application process.

"I think that NIH reviewers do a very thorough job and they give very good and on-point reviews," he said. "The NIH's ability to process revisions is a great strength compared to other funding agencies because you are able to address and fix potential liabilities and refine something to the point that it's really quite good."

But to Laidlaw, what is most important in the end is that "you get the money to research from the government."
