

Commentary

Howard J. Gobstein

We have earmarks at Michigan State University (special projects, as we call them) that involve research in wood utilization, potatoes, sustainable agriculture, and bovine tuberculosis. That makes me as conflicted as everyone else. Some people say simply that earmarks are good, so we should use them. Others say they are bad, so we should not use them. But this simple perspective misses the point. We desperately need to understand, and find balance, between these two positions before the immense growth in academic earmarking severely damages the nation's science enterprise. I do not have the answer, but I wish to throw out the three premises, then several ideas as a start to the discussion on addressing the matter.

First, the position of the science community has changed. Years ago, we in the science community were very concerned that the political leadership in Washington did not pay adequate attention to science. We felt they did not recognize our value. It is obvious that today they do recognize our value. In fact, they recognize our value so much that they want to make science part of the political currency that they use. They want to fund science the same way they fund roads, bridges, post offices, and statues. But we are saying to them that they cannot do that. We want them to recognize the value that scientist's place on science, not the value that Congress places on it.

This becomes a very difficult problem and is at the nexus of science and politics. But we wanted to be at this point where Congress values our efforts. We should not now argue that Congress has to play exclusively by the rules of the scientific community as we define them.

My second point is how corrosive (and I stress that word) earmarking can be to scientific norms. I am very concerned about that. I am concerned about how earmarking affects young faculty members. Fac-

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ulty today are increasingly going to Congress before they go to their own program officers. I am concerned about how earmarking affects university presidents. An increasing number believe that the only way they can show value in Washington is by getting specific projects.

Point three: I am concerned about the lack of specific analysis that I think we need in order to determine if earmarking has deleterious effects. For example, five percent of federal academic research and development (R&D) is earmarked and that low figure does not appear to indicate a problem. Even if you take out the National Institutes of Health (NIH) from the total, the number rises only to ten percent. But for many specific programs in the Environmental Protection Agency (EPA), the Department of Defense (DoD), the National Aeronautics and Space Administration (NASA), and the Department of Transportation, the figure is far more than 50 percent. That is, over 50 percent of their academic funding is granted through congressionally earmarked projects to specific institutions. In some programs, earmarking has virtually crowded out the meritorious, competitive portion of the programs.

Earmarking such high portions of particular federal programs could represent a very big problem for the nation, but there is little, if any analysis of this effect. If over half the research effort of selected federal programs is not selected based on the scientific merit of the performers, how is the public to ensure these programs are of high quality and make the most valuable contributions to the agency's mission? This erosion in the use of quality criteria in selecting research performers could be an even bigger problem for establishing future federal standards and regulations. In a science-based economy as regulatory decisions on matters such as air quality require extensive assessment and balancing of risk, developing the science base using political, rather than scientific criteria, to select performers could put regulatory decisions on very shaky ground.

As a federal lobbyist (academic advocate) I spend more and more of my time every week fending off proposals for earmarks. I try to find alternatives for faculty members who deserve funding.

What can we do about this? I do not think the answer is to attempt a ban on academic earmarking—Congress has the prerogative to select projects and its nonsense to believe that the portion of the science community opposing earmarking will be able to pre-empt this strong Congressional desire. But I wonder if our past experiences offer the beginning of a model. About 20 years ago, we faced concerns about whether the immense growth of industrial funding for academic science would dam-

age existing academic norms; today we face some of the same concerns about the use of political interests in funding academic science directly.

But 20 years ago, we did not refuse industry funding for universities. We recognized the value of industrial involvement with universities. Instead, we started what has been at times a very noisy and difficult discussion with industry. Together, academic and industrial research leaders established norms and protocols, and tried to define what constitutes conflict of interest for university scientists. We are not done; this is a dynamic process. It is going to continue, and it needs to continue.

But we have not yet begun that process with Congress. Instead, we are still arguing whether the practice of direct congressional funding is good or bad. Just as we want industrial funding of universities because we need it, and just as we want industrial involvement in the application of research from universities because we need it, we want the same thing from Congress. We want Congress to be concerned and to know that there are ways scientific programs can help resolve problems facing society. One example is the study of bovine tuberculosis in Michigan, where there is no federal program except by congressional direction.

We need to search for ways to avoid doing serious damage to science, while at the same time recognizing the congressional norms that are valid and necessary. (In Chapter 11 in this volume, John Silber ascribes to the conventional scientific norms, as he proudly describes the accomplishments of his own institution and how it is more scientifically competitive as a result of past congressional funding.)

So, a few suggestions for next steps. First, we must not cast this as an ethical issue. Neither those who select projects based exclusively on scientific criteria or political criteria are 'right' or 'wrong'. Second, we need to find ways to better address the concerns about the fair distribution of science across the United States without sacrificing scientific accountability. For example, can we grow EPSCoR (Experimental Program to Stimulate Competitive Research)? Maybe it needs to be grown five-fold. Can we require the same kinds of scientific accountability and strategic building that Boston University exhibited as they built up their institution based on congressional funding? (See John Silber in this volume.)

Third, we need to define the nexus of science and politics. Are there ways to define programs, or amounts of money awarded by Congress, and thus preserve what is left of the competitive programs? The National Science Foundation (NSF) is under stress right now. This is not

discussed publicly, but there are some proposed efforts that could do long-term damage to NSF norms. This is something we need to avoid.

Fourth, we must establish boundaries between “legitimate” and “non-legitimate” earmarks. Is the congressional funding for the road that led into Michigan State University nonlegitimate because it is a road and not a research project? Is fighting bovine tuberculosis in Michigan legitimate because it is funded by the Department of Agriculture, which is concerned about the immense economic losses to Michigan as well as the threat to the neighboring states? Is it legitimate to support earmarks from the Department of Energy or EPA, but not NIH and NSF? I do not know where that line is, but we need to find it.

Finally, the science societies need to discuss earmarking and what is legitimate and what is not. They cannot ignore it. They need to consider how the norms of science are changing, and perhaps corroding. We are not paying attention to this. The societies need to determine now whether the future they see is the one they wish to pass on to the next generation of scientists.