

# Science

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## Rand Paul takes a poke at U.S. peer-review panels

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Senate Republicans have launched a new attack on peer review by proposing changes to how the U.S. government funds basic research.

**New legislation introduced this week** by Senator Rand Paul (R–KY) would fundamentally alter how grant proposals are reviewed at every federal agency by adding public members with no expertise in the research being vetted. The bill (**S.1973**) would eliminate the current in-house watchdog office within the National Science Foundation (NSF) in Alexandria, Virginia, and replace it with an entity that would randomly examine proposals chosen for funding to make sure the research will “deliver value to the taxpayer.” The legislation also calls for all federal grant applications to be made public.

Paul made his case for the bill yesterday as chairperson of a Senate panel with oversight over federal spending. The hearing, titled “Broken Beakers: Federal Support for Research,” was a platform for Paul’s claim that there’s a lot of “silly research” the government has no business funding. Paul poked fun at several grants funded by NSF—a time-honored practice going back at least 40 years, to Senator William Proxmire (D–WI) and his “Golden Fleece” awards—and complained that the problem is not “how does this happen, but why does it continue to happen?”

Paul’s proposed solution starts with adding two members who have no vested interest in the proposed research to every federal panel that reviews grant applications. One would be an “expert ... in a field unrelated to the research” being proposed, according to the bill. Their presence, Paul explained, would add an independent voice capable of judging which fields are most worthy of funding. The second addition would be a “taxpayer advocate,” someone who Paul says can weigh the value of the research to society.

That provision would apply to every federal agency that awards competitive research grants. But another portion of the bill would affect only NSF, specifically, its Office of Inspector General. That quasi-independent office now investigates waste, fraud, and abuse of NSF funds, as well as investigating allegations of research misconduct.

Paul’s bill would transfer its authority—as well as its budget and staff—to a new Office of the Inspector General and Taxpayer Advocate for Research. Its job would be to comb through NSF’s portfolio of top-rated proposals and chose a “random” sample to determine “if the research will deliver value to the taxpayer.” The office would also have veto power; that is, no proposal that it finds wanting could be funded by NSF.

Paul also wants to ban the practice at some agencies of allowing applicants to recommend potential reviewers, as well as anyone who should not judge their application because of a conflict of interest or other disqualifying factors. NSF allows both types of suggestions; the National Institutes of Health in Bethesda, Maryland, allows applicants to request a particular study section, a body of some 20 reviewers, along with the names of individuals who should be excluded.

“So the people getting money can recommend who approves giving them the money,” Paul said in his opening remarks. “That doesn’t sound very objective.”

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*Senator Rand Paul (R-KY)*

The chairperson of the full Senate committee on government oversight, Senator James Lankford (R-OK), took a slightly more measured tone in critiquing current practices at federal research agencies. He began by acknowledging that the government has a role to play in supporting science, before ticking off his concerns about whether there’s a level playing field.

“I’m not opposed to research,” Lankford began. “In fact, I’m grateful for some of it every time I pick up my cellphone or go to the doctor’s office. But the question is whether the information [from the research] is available to everyone, the diversity of the selection teams [choosing the research], and the national benefit of it.”

The top Democrat on the panel, Senator Gary Peters (D-MI), defended both the way government funds research and the value of that research. The co-sponsor of a 2017 law that gave NSF a vote of confidence, Peters acknowledged that no system is perfect, but suggested that his colleagues were missing the bigger picture.

“While certain basic research projects that receive federal funding certainly have silly-sounding titles, further examination may reveal the true scientific merit and potential broader impacts of the work,” Peters said. “Rather than inject politics into this process, our discussion today should instead concentrate on how to safeguard the often unexpected process of discovery inherent in scientific inquiry, while ensuring that federal dollars spent on research remains completely and fully accountable taxpayers.”

Two of the witnesses—Brian Nosek of the University of Virginia in Charlottesville and Rebecca Cunningham of the University of Michigan in Ann Arbor—were generally supportive of the status quo, although Nosek emphasized the importance of replicating findings to maximize federal investments. The third witness, Terence Kealey of the Cato Institute in Washington, D.C., asserted that there’s no evidence that publicly funded research makes any contribution to economic development.

The hearing ran for less than an hour before members were called away for votes. But before it ended, Lankford and Paul had warned that change is coming and that the academic research community needs to shape up if it wants to be on the winning side. “I think there’s a lot of bipartisan support for these changes,” said Lankford, whose committee would take up the legislation.

Paul was more direct. “There’s a lot of bizarre stuff that everybody agrees should not be going on,” he asserted. “And if you don’t fix it, the danger is that people [in Congress] will get tired and there won’t be any more money for research.”

The prospects for Paul’s legislation are unclear. A Libertarian often at odds with the leadership of his own party, Paul is not known as an alliance builder, and so far his bill has no co-sponsors. At the same time, most proposed legislation never even gets a hearing, so Paul at least has cleared that hurdle.