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**Sandy Schaeffer/National Science Foundation**

## **No pressure: NSF test finds eliminating deadlines halves number of grant proposals**

By [Eric Hand](#)

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In recent years, the National Science Foundation (NSF) in Arlington, Virginia, has struggled with the logistics of evaluating a rising number of grant proposals that has propelled funding rates to historic lows. Annual or semiannual grant deadlines lead to enormous spikes in submissions, which in turn cause headaches for the program managers who have to organize merit review panels. Now, one piece of the agency has found a potentially powerful new tool to flatten the spikes and cut the number of proposals: It can simply eliminate deadlines.

This week, at an NSF geosciences advisory committee meeting, Assistant Director for Geosciences Roger Wakimoto revealed the preliminary results from a pilot program that got rid of grant proposal deadlines in favor of an anytime submission. The numbers were staggering. Across four grant programs, proposals dropped by 59% after deadlines were eliminated. “We’ve found something that many programs around the foundation can use,” Wakimoto told the advisory committee on 13 April.

The idea is one of [several that NSF has tested](#) for easing the strain on the merit review system. The no deadline idea began several years ago with a small grant program for instruments and facilities within the earth sciences division of the geosciences directorate. After making the switch in 2011, the program saw a more than 50% drop in proposals—and that number has stayed down ever since.

But many people doubted that NSF would see the same effect if officials dropped deadlines for one its regular science grant programs, says Alex Isern, the head of the surface Earth processes section. So she decided to test it out. She eliminated the twice-a-year deadlines for four of her grant programs, in geobiology and low-temperature geochemistry, geomorphology and land-use dynamics, hydrological sciences, and sedimentary geology and paleobiology. NSF sent out a notice about the change at the beginning of 2015, and after a 3-

month proposal hiatus, the no-deadline approach began in April 2015. The number of proposals plummeted, from 804 in 2014 to just 327 in the 11 months from April 2015 to March.

Some NSF programs, such as those in the atmospheric and geospace sciences division, have always done without deadlines. But Isern believes this is the first instance where NSF has tracked the switch like a controlled experiment. So far, she says, there have been no effects on the demographics of who is applying, such as the age of the principal investigator or the type of university they are applying from. Because of a lag in decisions, she hasn't yet measured the expected rise in success rates.

Feedback from scientists has been good so far, Isern adds. In a field where many scientists do field work, having no deadline makes it easier for collaborators to schedule time when they can work on a proposal. "I think they like the flexibility," she says. "They're able to be more thoughtful about it." However, one scientist told Isern that he was very busy and couldn't function without a deadline. Her response? "I've actually given you 365 deadlines."

Paul Bierman, a geologist at the University of Vermont in Burlington, says the move is an "incredibly good idea" and expects success rates to go up. In October 2015, he and two collaborators resubmitted a previously rejected proposal to the geomorphology program: a \$265,000, 3-year request to study the thinning of glaciers that retreated from New England within the last 20,000 years. Bierman thought it would only take the three of them a month or so to revise their proposal, but the lack of a deadline allowed them to buff the proposal to a shine over the course of several months. The extra polish apparently paid off: He received a notice of recommendation for funding this week.

The switch is "going to filter for the most highly motivated people, and the ideas for which you feel the most passion," he predicts. When he sits on merit review panels, he finds that he can usually reject half of the proposals right away as being hasty or ill-considered. "My hope is that this has taken off the bottom 50%," he says. "Those are the ones you read and say, 'Did they have their heart in this?'"

Carol Frost, head of the earth sciences division at NSF, says that many other program managers are thinking about trying out the idea. "There's an awful lot of talk across the foundation," she says. She has one concern, however: When proposals go down, and success rates go up, programs could be punished for having higher success rates than their peers. "One of the arguments that has been made for increasing budgets has been, 'Look, we have such proposal pressure, give us more money,'" she says. The experiment provides evidence that proposal pressure can be easily manipulated, she says. "It's not a good metric to use to decide whether a certain program deserves to have an augmented budget."