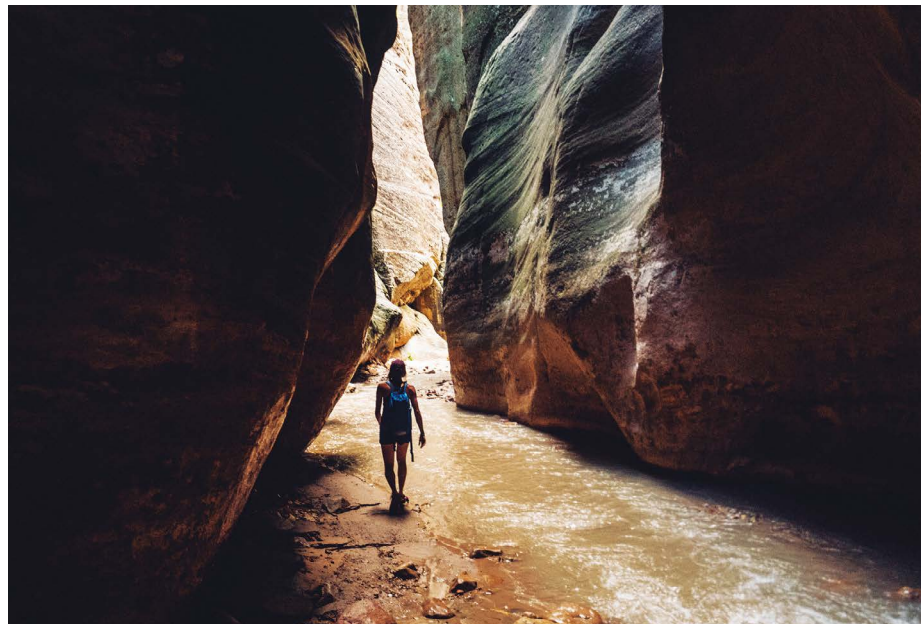


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Graduate students are struggling to find healthy coping mechanisms during the pandemic.

## 'CRISIS' LOOMS ON US CAMPUSES

Study reports that graduate students' mental health is at risk nationwide. **By Chris Woolston**

**E**ven at a time of great financial strain and uncertainty, universities and colleges across the United States must invest more resources to address a growing mental-health crisis among students, according to a report from the US National Academies of Sciences, Engineering, and Medicine (see [go.nature.com/2l5a7cl](https://go.nature.com/2l5a7cl)). "The problem is as great or greater than it's ever been, and it's not getting better," says Alan Leshner, who chaired the committee behind the report and is chief executive emeritus of the American Association for the Advancement of Science. "Unless there's concerted attention, it will get substantially worse, because the pressures are not going away."

The COVID-19 pandemic, which struck while the report was in its planning stages, has only added to the urgency for action, Leshner says.

Universities, says Leshner, must pay special attention to the needs of graduate students, many of whom face unusual pressure from having to keep up with their work and

family obligations while navigating a career. Graduate students are less likely than undergraduates to feel that they have access to mental-health care, he says. They also tend to rely strongly on guidance and support from their supervisors, with uneven results. "Some mentors are great, and some are terrible," he says: faculty training to improve mentorship could go a long way towards improving the health and well-being of graduate students.

The required investments will be substantial, but simply throwing money at the problem won't be enough, Leshner says. The report calls for an "all-hands" approach to mental health that starts at the top, with university presidents, and involves faculty and staff members at all levels. Among other steps, the report calls for faculty members to receive formal training to address and support student well-being. For their part, students should learn about mental-health issues as part of their introductory training. "It will take a cultural shift to produce the healthy, well-educated people that the

country needs," Leshner says.

Surveys suggest that rates of anxiety and depression among graduate students have spiked during the pandemic, especially among economically disadvantaged and under-represented groups (see *Nature* **585**, 147–148; 2020). "Students are under a lot of economic pressure, and they're worried about their future jobs," Leshner says.

Most university leaders are already aware of mental-health challenges on their campuses. In a December 2020 survey from the American Council on Education, 68% of university presidents listed student mental health as one of their most pressing issues (see [go.nature.com/39ekj2q](https://go.nature.com/39ekj2q)). Still, Leshner says, institutional leaders might need to be convinced by their boards of trustees to devote extra resources to mental health. The argument could be economic: the National Academies report cites surveys finding that the dropout rate for students with diagnosed mental-health problems ranges from 43% to as high as 86%. "Student dropout isn't just expensive, it reduces the effectiveness of an institution," Leshner says.

Students have shown an increased willingness in the past decade to access mental-health services, an encouraging trend that is nonetheless putting extra pressure on counsellors and clinics, says Sara Oswald, a public-health scientist at the University of Texas at San Antonio. Oswald was the lead author of a 2020 report that tracked rates of mental-health disorders and the use of mental-health services on campuses from 2009 to 2015 (S. B. Oswald *et al.* *J. Am. Coll. Health* **68**, 41–51; 2020).

The pandemic has greatly increased the need and demand for support, Oswald says: "Mental-health services are overwhelmed. The challenges students are facing now are different than they were in the past. It's hard to quantify what it's doing to their mental health." She adds that counselling centres and other services can be especially scarce in small private institutions, community colleges (which, in the United States, usually offer two-year programmes) and other places of learning beyond large universities running four-year courses.

Hiring more counsellors could be an important step, but counsellors alone can't turn the tide, Leshner says. "Counselling centres are fighting an uphill battle against this culture that works against mental health and emotional well-being."

The ripple effects of the pandemic could last long after the disease itself fades, says Bill Lechner, a behavioural researcher at Kent State University in Ohio. Lechner co-authored a 2020 study that investigated

psychological distress and substance abuse both before and after a COVID-19 lockdown at an Ohio university (W. V. Lechner *et al.* *Addict. Behav.* **110**, 106527; 2020). The students who said that they had more trouble with anxiety or depression after the lockdown also reported greater alcohol use. “The pandemic took away a lot of forms of healthy coping,” Lechner says. “You may not be able to go to the gym like you used to, and you certainly

can’t go out and socialize in a healthy way.”

Before the lockdown, the highest alcohol consumption reported by any student was 63 drinks per week. After the lockdown, at least one student reported having 98 drinks in a week. The average number of drinks increased from a more modest three-and-a-half per week to more than five. Lechner warns that any change in drinking habits could linger for years. “There will be long-lasting neural and

psychological consequences that are hard to just pull back,” he says.

The report from the National Academies carries no legal weight, and the response from colleges and universities remains to be seen. Still, a forceful statement from a major scientific body could have a real impact, Oswalt says. “I’m hopeful that the National Academies putting out this report and focusing on this issue will give it the increased attention it deserves.”

# ZOOM FATIGUE SAPS GRANT REVIEWERS’ ATTENTION

US National Institutes of Health referees engage less in virtual panel meetings – but most say review quality doesn’t suffer. **By Dalmeet Singh Chawla**

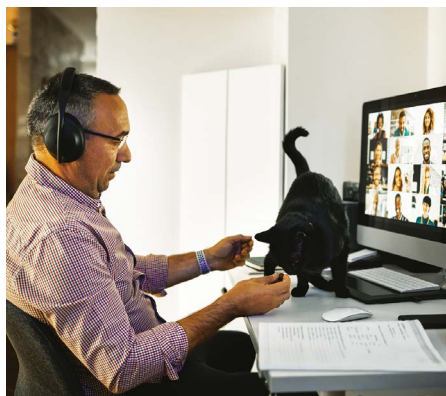
**G**rant reviewers for the US National Institutes of Health (NIH) report shorter attention spans and lower engagement during video grant-review meetings than in those held face-to-face, finds a survey of 3,288 reviewers (see [go.nature.com/3c6yvyz](https://go.nature.com/3c6yvyz)).

The survey by the NIH’s Center for Scientific Review (CSR) in Bethesda, Maryland, polled reviewers who had participated in Zoom meetings between August and October 2020. Compared with in-person meetings, 46% of respondents said that they paid less attention during the video meetings, and 51% said that their engagement was worse. “I get tired of looking at all the faces in Zoom meetings, so I’ll look at other things, too,” says survey participant Alexander Dent, an immunologist at Indiana University School of Medicine in Indianapolis. “But I’m certainly listening, and that happens at a normal meeting anyway.”

Other researchers worry that reviewers in video meetings might not discuss or consider grants in the same way as at face-to-face meetings. Jason Moore, a bioinformatician at the University of Pennsylvania in Philadelphia, says that he writes many grants and is concerned about the quality of reviews conducted on Zoom calls. “Is my grant getting a fair discussion and are all voices being heard?” he asks. “Because it’s often the case that a single person who really likes a grant that nobody else likes can be a loud voice in the room and can turn the table around and convince everybody else that the grant really does have merit.”

## Split preferences

Some 43% of survey participants said that they preferred face-to-face meetings over those conducted online, whereas almost one-third



**Distraction is common at virtual meetings.**

preferred online platforms. Just 10–15% of reviewers rated Zoom meetings as the better option across all criteria of review quality and reviewer participation, according to the CSR report.

“We are a bit Zoom fatigued,” says Sandra Bendiscioli, senior science-policy officer at the European life-sciences organization EMBO in Heidelberg, Germany.

A spokesperson for the CSR, which reviews more than three-quarters of all NIH grant proposals, declined an interview with *Nature* on three separate occasions, saying the publicly available report speaks for itself.

Dent, for one, is not worried that Zoom is making it harder for reviewers to fully focus on grant applications. “I don’t think that’s a big issue,” he says. “The overwhelming sentiment was that the review process was still as stringent and as rigorous as normal.”

Sixty per cent of survey participants said that overall, reviews conducted during Zoom meetings were of the same quality as those done in person. Half of participants said discussions were of the same quality. Other

studies have suggested that remote peer review can work well, and that scores decided in online meetings are likely to be similar to those from in-person discussions (S. A. Gallo *et al.* *PLoS ONE* **8**, e71693 (2013); D. G. Pina *et al.* *eLife* **10**, e59338; 2021).

Still, Moore says, it is important for the NIH and other funders to determine whether virtual meetings change how reviewers rate grant applications. “If the scores are fundamentally changing in some way, that would be good to know,” he says.

## Accessibility boost

Some say that virtual meetings are a positive outcome of the pandemic. Online platforms can help to boost the diversity of review panels and widen participation, says Susan Guthrie, associate research-group director at RAND Europe, a non-profit policy consultancy in Cambridge, UK. A study on researcher mobility that she co-authored in 2018 suggests that some academic scientists are excluded from international collaborations, far-flung conferences, or manuscript or grant peer review because they cannot afford to travel or pay for childcare (see [go.nature.com/2z9dabp](https://go.nature.com/2z9dabp)).

Guthrie says that the pandemic has prompted many changes to the scientific enterprise. “In terms of peer review in particular,” she says, “we have seen how funding can be allocated rapidly and repurposed flexibly to address emerging challenges.”

Moore calls for improved technology that will allow researchers to attend conferences and meetings in virtual reality. “It’s closer to a real experience where you’re in a conference room and with other people,” he says. “The technology needs to catch up, and when it does, it will be a better replacement sometimes for face-to-face meetings.”

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