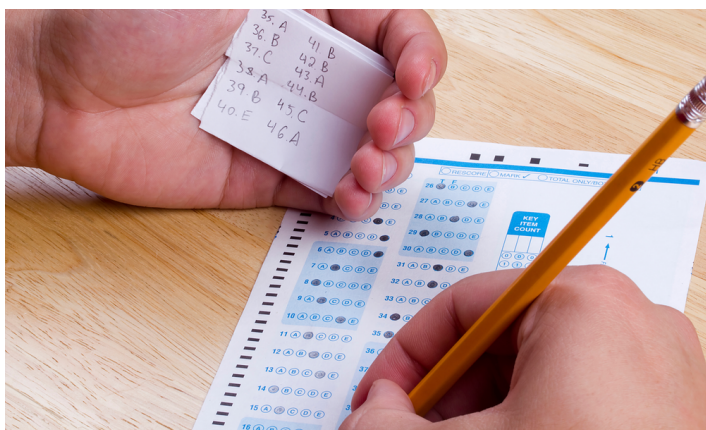


Survey Finds Cheating Is Common in Graduate School

In a survey of 244 engineering graduate students, one fifth admit to cheating or committing some form of research malpractice during their studies.

By Dalmeet Singh Chawla

According to the results of a survey published last month, more than 16% of recipients of a prestigious graduate research fellowship in science have cheated on an exam or an assignment during their time at graduate school [1]. And another 4% of those recipients admit to committing **research misconduct**, defined as the fabrication of data; the falsification of materials, processes, or results; or the plagiarism of someone else's ideas, results, or written work. The findings hint at a prevalence of malpractice and wrongdoing among research-focused graduate students. They also unveil that the students lack understanding of the issues related to research integrity.



The findings of a new survey suggests that research malpractice and academic cheating are common among early-career researchers.

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“It is disheartening to see that even among these excellent early-career researchers, misconduct and academic cheating appear common,” says Jelte Wicherts, who studies research methodology at Tilburg University in the Netherlands. Wicherts was not involved in the new study but has conducted similar surveys of other groups of scientists. “We really need to learn more about the social and systematic factors that could (and arguably should) be changed” to alter this trend, he adds.

Each year, the National Science Foundation (NSF), a US federal agency, awards around **2000 fellowships to graduate students**. These fellowships provide each student, for three years, with an annual stipend of \$37,000 for living costs and \$12,000 for tuition fees. All eligible students can apply for the awards, but the fellowships are particularly aimed at helping students in underrepresented groups, such as women, racial minorities, and disabled individuals. Because of their guaranteed income under this program, the awardees are less likely than other graduate students to experience financial pressures, making this sample of scientists a “unique bunch,” says Siddhartha Roy, an environmental engineer at the University of North Carolina at Chapel Hill.

The survey was conducted by Roy and Marc Edwards, a civil and environmental engineer at Virginia Tech in Blacksburg. The study sample included two cohorts of NSF engineering graduate research fellows. The first cohort was awarded the fellowship between 2002 and 2007, and the second between 2012 and 2017. The survey focused on capturing the fellows’ perceptions, behaviors, and experiences related to incentives, misconduct, and scientific integrity in academia. The survey

was sent to 1078 fellows with 244 replying: 46 from the 2002–2007 group and 198 from the 2012–2017 group.

Analyzing their data, Roy and Edwards found that around 31% of respondents claimed to have direct knowledge of their peers cheating, while just under 12% reported knowing that their colleagues had engaged in some form of research misconduct. One fifth of students admitted that they themselves had behaved dishonestly, with the majority saying that they had plagiarized assignments, for example, by copying online solutions to their homework questions. One in five survey respondents said that they were justified in cheating because they felt that the hypercompetitive grading of assignments, unfair homework assignments, or poor class design could otherwise impact their grades.

The duo found that more than 63% of those surveyed had rethought pursuing careers in science because of the cheating they witnessed. Yet fewer than a third of the students considered scientific misconduct to be a significant problem in academia. Nearly two thirds of respondents were unaware of investigated misconduct cases in their fields. The survey respondents were “astonishingly uninformed,” Roy says.

Other recent surveys have yielded similar results. For example, in a [2021 survey](#) of nearly 7000 researchers working in the Netherlands, 8% of respondents admitted that they had falsified or fabricated data at least once between 2017 and 2020. (This survey was conducted by Wicherts and colleagues and looked at scientists at all career levels and in all fields.) During that same period more than half of the group reported that they themselves had engaged in questionable research practices—such as using inadequate research designs, unfairly evaluating manuscripts or grant proposals, and concealing

studies with negative findings. Such offences are considered less problematic than outright misconduct.

According to Roy, most fellows cheated because they were afraid that they would otherwise receive bad grades or because they needed to take shortcuts to meet otherwise unachievable deadlines. He also notes that academics are increasingly being pushed to publish more papers, accumulate more citations, and issue more patents, which can cause them to cut corners. “We care about [these metrics]. We should absolutely be counting them,” he says. But quoting Goodhart’s law, he notes, “when a measure becomes a target, it ceases to be a good measure.”

Going forward, Roy hopes that the results of his survey will help spark more conversations about dishonesty in academia. “We don’t publicize [research misconduct] cases enough or talk about the pitfalls of academia,” he says. For example, he notes that universities often appear to stonewall investigations into misconduct, or they carry out their investigations in an opaque manner. “If universities and funding agencies [were to] publicize bad actions by professors that are found guilty, perhaps those could be made into case studies,” he says. Those studies, in turn, could provide the basis for improved ethics training courses, which the survey found are currently considered to be well below par.

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REFERENCES

1. S. Roy and M. A. Edwards, “NSF Fellows’ perceptions about incentives, research misconduct, and scientific integrity in STEM academia,” [Sci Rep 13, 5701 \(2023\)](#).