

References

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Adjunct educators in a profit-driven arena

To the Issues and Events story about contract lecturers (PHYSICS TODAY, November 2018, page 22), I would like to add a significant concern that we have seen arise with instructors and adjuncts over about the past two decades. During that time the numbers of private and public community colleges and universities have skyrocketed while funding has declined. Those facts, combined with the profit motive and less stringent admissions practices at the freshman level, have led to many displeased academics, particularly in the hard sciences.

Nowadays a significant number of students entering these institutions are not well prepared to succeed in hard-science courses. In search of profits, institutions of learning have loosened entrance requirements. As a result, some admitted students have no motivation to continue in science but either need to take these courses for a career in other fields or are bent on receiving high grades without doing the necessary work.

As test and exam dates draw near, some students realize that they cannot make the high grades, and they complain to the dean or department chair, who rarely offers the teacher an opportunity to make a defense. If the teacher is present, then the students are less likely to embellish their performance or tell lies or denigrate the teachers. Student complaints often get lodged without rebuttal or evidence and become part of the teacher's record. And even if the com-

plaints are true, institutions should have a protocol established for instructors to be able to improve their performance or correct the record. That rarely happens. Now instructors, realizing that they could be fired, may jack up grades in the hope of calming the complaints. One has to think twice to fail a student who might file a complaint.

Often the result is that the complaining students receive better grades than their work deserves and teachers—even research leaders with broad teaching experience—may lose their positions. Their loss leads to a decline in academic standards. In the past decade or so, maybe as a result of this, many failures of high-tech manufacturing products, services, and air travel, some of which have been life threatening, have been in the news.

Colleges and universities must change their policies regarding admissions standards and quality of education, particularly in the hard sciences. Having school administrators require that an instructor be present when a complaint is lodged will minimize students' opportunity to present only their side of the situation, and supporting the professors once they are hired should also help maintain ethical standards. Administrators could also encourage the complainers to first try to settle with their teachers before they lodge an administrative grievance.

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Notes on superconducting hydrides

In their article "The quest for room-temperature superconductivity in hydrides" (PHYSICS TODAY, May 2019, page 52), Warren Pickett and Mikhail Erements commented that "in the late 1960s William McMillan of Bell Labs extended the [Bardeen-Cooper-Schrieffer] analysis to moderately strong coupling," which is measured by the electron-phonon coupling constant, λ . According to Pickett and Erements, the McMillan "equation for T_c was extrapolated beyond

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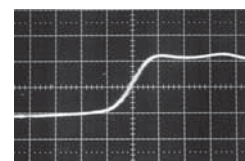
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