

Controlling Grade Inflation

by Alexander Stanoyevitch

Grades are the currency of exchange that instructors use to motivate students to put in the necessary time to master concepts and knowledge. However, extensive data show grade inflation, both in high schools and in colleges and universities.¹ Research has found a steady rise in grades that are assigned at universities, and a strong positive correlation between grades that instructors assign and the popularity of those instructors, as evidenced in student evaluations of teaching.² These two forces—grade inflation and student evaluations—can interact to produce serious threats to higher education and the nation’s overall educational system.

Despite the abundance of compelling evidence about the dangers and long-term effects of grade inflation, the subject tends to be controversial for an assortment of reasons. Department chairs and university administrators find it convenient to ignore the problem and, in some cases, actually encourage the practice. And even though knowledge about grade inflation is widespread, very little work seems to have been done to develop strategies to resolve the problem.

In this paper, I restrict my attention to the college and university level, although many of the tools and ideas developed here should be useful for high schools as well. I consider the relationships between grades instructors assign and scores they receive on end-of-the semester student evaluations of teaching. In addition, I examine some of the possible causes of grade inflation, some of the major negative consequences of it, and some of the reasons why instructors are enabled (and often

Alexander Stanoyevitch is a professor of mathematics at California State University-Dominguez Hills where he has been since 2005. Previously he served on the faculty at the University of Hawaii-Manoa, the University of Guam (at which he served as department chair), and as a visiting professor at the University of Missouri-Columbia. He earned his Ph.D at the University of Michigan-Ann Arbor and has written several articles in leading mathematical journals, published two books, and has been an invited speaker at numerous conferences and symposia.

encouraged) by the system to engage in the practice. I also provide some practical tools and ideas to help mitigate grade inflation and its negative effects.

WHAT IS WRONG WITH GRADE INFLATION?

An inherent problem with inflated grades is that they give very little information about the level of mastery in the subject. Grade inflation enables students to complete classes and obtain diplomas and enter into jobs for which they are not adequately qualified.

The instructor will discover that this student is neither ready with the prerequisites nor possesses a realistic idea of the sort of work required to do well in the course.

Although such students may consider themselves fortunate, society as whole will pay the price—for example, when a poorly qualified teacher enters into the education system for perhaps 40 years of teaching. Of course, inflated grades make it relatively easier to identify extremely poor performers because C, D, and F grades are relatively sparse; but such determinations are often of much lesser importance.³

Another serious problem is that grade inflation tends to deteriorate the work ethic of students who experience it. Because grades were conceived to be an unbiased measure of student success, undeserved higher grades give the signal to students that they do not need to work so hard. This attitude can easily carry over into subsequent classes and, later, into the workforce. With courses where prerequisites are important (such as in the sciences), this can become a double-edged sword: If, say, Course 123 is a prerequisite to Course 234, and a certain student who has received (an inflated grade of) an A or B in Course 123 enters into Course 234, then he/she will have a false confidence of mastery and an unrealistic presumption of the intellectual demands of Course 234. The effect is compounded if the instructor in Course 234 does not practice grade inflation. The latter instructor will discover that this student is neither adequately prepared, nor possesses a realistic idea of the sort of work required to do well in the course. In many cases, the student will not be able to pass the latter course. Moreover, poorly prepared students tend to affect the chemistry of the whole class by eating up class time, asking inappropriate questions stemming from their ill-preparedness. A natural defense mechanism for these “victimized” students is to blame the instructor of Course 234 for being too hard, too uncaring or, worse, ineffective. On the other hand, students who enter into Course 234 having had a more realistically demanding instructor in Course 123 will possess the skills they need and have the back-

ground that will be required to succeed in Course 234.

A final problem with grade inflation is the longer-term effect it will have on the academic standing of the schools that practice it, eventually producing a degradation in reputation. Once a school engages in grade inflation, the value of a 4.0 GPA, even from a reputable school, will no longer carry the same weight as it once did or should. Grade inflation at less reputable schools could eventually earn them classifications as degree mills, at which point their graduates would become much less marketable.

Students quickly recognize teachers who practice grade inflation and word spreads because students tend to gravitate to easy graders over hard graders.

WHY GRADE INFLATION?

As I mentioned earlier, studies show that high-grade distributions are positively correlated with higher marks on student evaluations of teaching. In most schools, summaries of these teaching evaluations play a major role in assessing teaching effectiveness and decisions about contract renewals, promotions, tenure, and even teaching awards. Moreover, students quickly recognize teachers who practice grade inflation, and word spreads because many students (both strong and weak) tend to gravitate to easy graders over hard graders. This, in turn, causes the class sizes of easier graders to fill up more quickly, which tends to be appreciated by school administrators (especially in harder economic times).⁴ In some systems, this can even result in the instructors who grade honestly not having large enough numbers of students in their classes to earn full pay. Thus, both job security and financial benefits are more likely to accrue for instructors who practice grade inflation. These matters are exacerbated by the concurrent rise in the percentages of part-time faculty, whose job security and compensation can vary by semester.

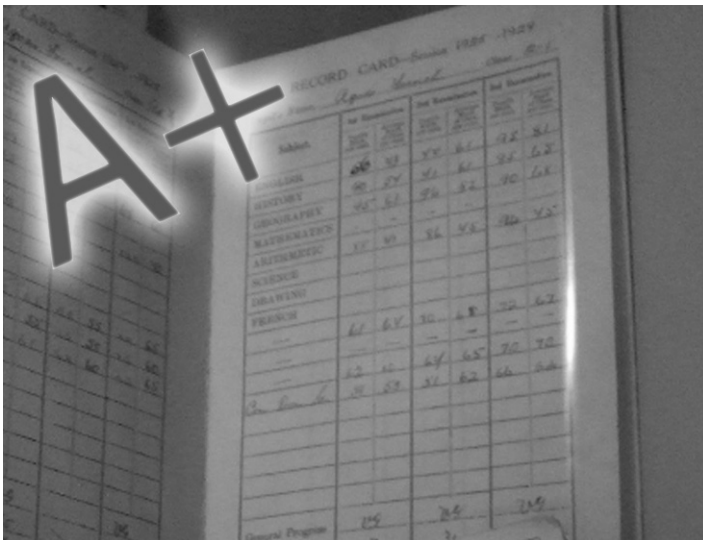
Time is a precious commodity for many academics and, therefore, convenience becomes another reason for grade inflation. Boosting grades tends to minimize student complaints and worries, and allows instructors to avoid unnecessary, inane conversations with students who need to know things like: “how well do I need to do on the final (or the rest of the semester) to pass the class?” or “is there an extra-credit project you can give me to make up for the exams and quizzes that I failed?” For administrators, it is frequently convenient to ignore grade inflation, especially if the participating instructors are attracting large numbers of students to their classes, and are receiving strong student evaluations of their teaching.

During hard economic times, there is often tremendous pressure on deans and department chairs to increase student enrollments, so some instructors, and even whole departments, use inflated grades as a way to increase their enrollments.

Inflated grades also can improve the rapport that instructors have with students. Students tend to be more friendly and chatty with instructors who have passed them or given them high grades, than they are with those who failed them or gave them average or lower grades. Students will often postpone taking certain courses until they are being taught by easier graders. Often, instructors who do not inflate grades wind up with students who are all set to graduate; having no more time to wait for an easier grader, they are forced to take such a class. Invariably, many of these students will find toward the end of the semester that they are not passing this class, and try to use their impending graduation as a reason for the instructor to pass them. Of course, graduation status has nothing to do with a student meeting his or her learning objectives and should not enter into instructor's grading schemes.

WHAT CAN BE DONE?

Grade distributions tend to vary greatly by departments, even within a given university. Such irregularities can easily be detected by computing the mean GPA of each department at a school and making the results known among all faculty and administrators, so that the various departments and deans can begin to address any discrepancies. Often, the motivations for consistently higher grades in certain departments stem from either the course work being less demanding than in other departments, or simply the lure of better grades being



used by a department to improve enrollments, in the hope of gaining more resources or greater allocations of university coffers. Ideally, a student who puts an equal amount of effort into two different classes at similar levels (for which he/she had equally sufficient preparation and background) should receive close to equal grades in both.

Making grade discrepancies known is one first step. Faculty and administrators—in the departments with prevalent grade inflation, and in those without it—could discuss the reasons for any unusually high departmental GPAs, and how to better close the cross-departmental gaps in grade distributions. For this to

Instructors whose grades deviate significantly from departmental averages should be asked to justify the discrepancies or to adjust their grading schemes.

be effective, the supervising administrators need to be aware that there is a problem, and be committed to mitigating it.

While the preceding example deals with grade inflation at the macro level, it is important to also consider the problem at a more micro level—either within a particular department or in a division of similar departments. Ample attention and feedback is provided at most schools to instructors (and their evaluators) on their performance on the end-of-semester student evaluations. Such scores are often summarized numerically, with indicators on how the instructor rates in comparison to department or division averages in key questions, such as “Is the instructor an effective teacher?” It would be prudent to also include key statistics on the instructor’s grade distributions—such as mean GPA and a summary histogram of the instructor’s recently assigned grades—printed alongside the department average (for similar courses). In this way, just as instructors are evaluated and (if needed) advised to attend to improving their teaching based on feedback from the teaching evaluations, instructors whose grades deviate significantly from departmental averages should be made aware and asked to either justify the discrepancies or to adjust their grading schemes accordingly. Furthermore, these GPA summaries should be included alongside the teaching evaluation summaries to help prevent inflated grades from confounding assessments of teaching effectiveness. Equally important, such practices could help to avoid some of the more damaging consequences of grade inflation that have been mentioned above. I have put together an easy-to-use tool that is intended to be used by university administrators and department chairs to create such summaries in a convenient fashion (see Figure 1).⁵

| INSTRUCTOR: DOE, JOHN | | DEPARTMENT AVERAGE: | |
|-----------------------|------|-----------------------|------|
| MEAN GPA: | 3.53 | MEAN GPA: | 1.95 |
| FIRST QUARTILE GRADE: | 3.00 | FIRST QUARTILE GRADE: | 1.00 |
| MEDIAN GRADE: | 4.00 | MEDIAN GRADE: | 2.00 |
| THIRD QUARTILE GRADE: | 4.00 | THIRD QUARTILE GRADE: | 3.00 |

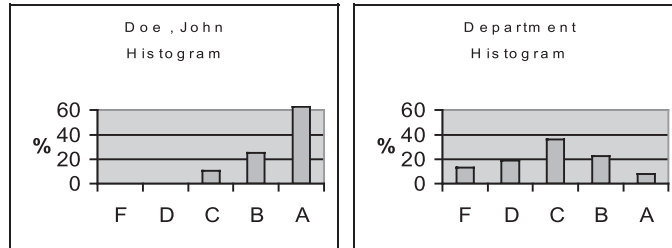


FIGURE 1: A sample summary output and histogram from the author’s Excel program of the grade distribution of a hypothetical grade inflating instructor, John Doe (left), alongside the corresponding departmental averages for similar courses (right).

Figure 1 shows a summary (produced by our program) for a grade inflating instructor (left), alongside the corresponding department averages (right), and below it the corresponding histograms.


As demonstrated in Figure 1, the individual instructor (John Doe) has grade distributions much higher than the departmental averages. Such distributions should be addressed as soon as possible. If, for example, Professor Doe were to receive rave reviews from his students (either in or outside his teaching evaluations), these should be viewed with caution when it comes to assessing his teaching effectiveness. We point out that such GPA summaries and histograms should be compiled with courses of similar sizes and levels. For example, introductory classes with large numbers of students should be summarized separately from smaller upper-level classes. The quality of commitment and maturity of the students are often quite different at such levels, and mixing large classes and small would give the larger classes an inordinate amount of influence over significantly smaller classes when the averages are computed.

While universities greatly value and reward the results of student evaluations of teaching, a truly objective measure of teaching effectiveness would be an answer to the following question: Did the students learn what they were supposed to learn? It is an unfortunate development that, in many schools, an instructor’s success rate is defined as the percentage of students who pass his/her classes (taken from the total number of students who register). This statistic is entirely susceptible to grade inflation, and by virtue of its very name (and importance), seems to encourage instructors to succumb to the lure of inflating grades. In departments where the courses are structured with prerequisites, one simple and very productive way to track both an instructor’s effectiveness in teaching (that can also be used to help to detect grade

inflation) is the following: All of the students of a given instructor are tracked in the subsequent course (in the subject sequence for which the instructor's course is a prerequisite), and the grades in the subsequent course are compared with the corresponding grades that the first instructor gave the students. If there are consistent and substantial drops in GPAs, this could indicate that either the first instructor is inflating grades, or he/she is not an effective teacher (or both). Conversely, if the GPA goes up substantially, this could mean that the first instructor is a hard grader, or a very effective teacher (or both). For this scheme to be practical, the department should be at least of moderate size (say, at least 10 faculty members).

If there are consistent and substantial drops in GPAs, this could indicate either the instructor is inflating grades, or is not an effective teacher (or both).

One excellent method of controlling standards in certain classes is in the use of uniform exams. If used properly, these can provide an unbiased yardstick to measure and compare the effectiveness of instructors who are teaching a given course in a given term. To be effective, the following guidelines should be in place: (1) The exams should be administered at the same time for all classes, and kept confidential from the instructors until just before they are to be administered; (2) they should be made up by either a senior faculty member or someone not teaching the course in that term; and (3) previous versions of the exams should be made readily available to all students (and instructors) to put everyone on an equal playing field and to encourage the creation of fresh exams each term. With such a system in place, the summary statistics of the exam scores for each instructor can provide a useful metric for measuring teaching effectiveness. Systems that do not follow all of these guidelines, however, are susceptible to manipulations that may corrupt this analysis. If instructors are aware of some of the specific items or questions on (or not covered on) the exams, some may convey information to their students to inflate their students' performance on the exam.

In summary, I hope that I have demonstrated the urgency of the need to address the serious problems stemming from grade inflation—in particular when it is compounded by a heavy reliance on student evaluations of teaching to gauge teacher effectiveness. The tools I propose here should be useful to any school or department that wishes to address these problems. The United States still has the finest higher education system in the world, and if we would like to pass this legacy on to future generations, we must control this epidemic spread of grade inflation, and repair the facets of the system that encourage it. 

ENDNOTES

- ¹ For example, a 2004 report from ACT, a nonprofit organization that organizes and maintains one of the two main college entrance exams used in the United States, performed a careful analysis showing that high school GPAs increased about 0.23 (on average) in the 13 year period from 1991 to 2003 without a concomitant increase in achievement (as measured by the ACT). Its report is available from the URL: www.act.org/research/researchers/reports/pdf/ACT_RR2004-4.pdf The Web page www.gradeinflation.com/ contains statistical displays from 80 major colleges and universities (both public and private) that demonstrate the steady rise in grade point averages over the 11 year period from 1991-2001.
- ² The book: *Grade Inflation, A Crisis in College Education*, by Valen E. Johnson (New York, Springer-Verlag, 2003) outlines numerous statistical studies (both observational and experimental) on the correlation of GPA and student teaching evaluation scores.
- ³ See the article by Harvard Professor Harvey Mansfield: *Grade Inflation: It's Time to Face the Facts*, in *The Chronicle Review*, April 2001, published by the Chronicle of Higher Education. Mansfield has been a long-time activist working to get university professors and administrators to recognize the problems of grade inflation. While it remains a problem at Harvard, Mansfield has adopted the practice of assigning two grades to each of his students: the official grade (that goes on the transcript) inflated to conform with Harvard's distribution, and the unofficial grade, which is the true grade that the student earns.
- ⁴ Private schools, whose economic viability depends primarily on tuition revenue, are naturally more susceptible to institutional pressure on instructors to inflate grades. These pressures can sometimes be quite direct. The author was once told (directly from the instructor) of a certain private university where a dean had approached a newly hired part-time instructor and told him something to the effect that: "Here, we tend not to want to fail students; if you would like to stay with us, it would be a good idea for you to remember this."
- ⁵ The program was created in Microsoft® Excel format and can be downloaded from the following URL: www.csudh.edu/math/astanoyevitch/GradeInflation.html To facilitate ease of use even for people unfamiliar with Excel, macros have been installed that guide the user through the data entry process, and so the alphabetizing, organizing, and histograms are produced automatically. Complete instructions are given on the worksheet.