Grade Inflation

By

Albert J. Simone
President

Rochester Institute of Technology

November 2005

MOTIVATION

Recently, a lot of discussion across academia has centered on the phenomenon of "Grade Inflation". It was first brought to the fore by the President of Harvard University a couple of years ago when he assumed office. More recently, Princeton University has mandated a maximum number of A's to be awarded to undergraduate students across the entire university.

As you might expect, these developments have sparked conversation across a wide spectrum of colleges and universities.

This paper is to stimulate discussion on the RIT campus on this topic. My purpose is not to arrive at a conclusion or a recommendation. It is rather to spark discussion so that all of us – particularly me – can learn and be better informed about the nature of this phenomenon. If, as a campus, we believe it is an issue, then together we can develop an appropriate response.

In what follows, I shall try to generate conversation around three questions:

- What is grade inflation?
- What does the data show?
- Do we have a problem?

WHAT IS GRADE INFLATION?

Simply put:

> Grade inflation is a rise in grades awarded without a corresponding rise in student ability or performance.

If we can agree on this definition – which is pretty much the standard across the country – we can proceed to answer the next two questions.

WHAT ARE THE DATA?

We shall examine the data from three perspectives:

- The Ivy's
- Rochester area colleges and universities
- RIT

The Ivy's

A recent Princeton University survey reports that the eight ivy's, the University of Chicago, MIT, and Stanford award A's to 45% - 55% of all undergraduates. The Harvard University

president sees a problem with this result. Discussions on the Yale campus do not appear to raise any significant issues of concern.

Princeton clearly has issue with this grade distribution. In April 2004, Princeton announced a plan to reduce the awarding of A's to no more than 35% of the students in undergraduate classes and no more than 55% of students engaged in independent junior/senior projects. These targets were based on grade distributions at Princeton in the 1970's through the early 1990's.

As a consequence of this policy, for the 2004-05 academic year, the number of A's awarded across the campus in undergraduate classes fell from 46% to 41%. The results by academic area are as follows:

- Humanities fell from 56% to 46%.
- Engineering fell from 48% to 43%.
- Social Sciences fell from 43% to 38%.
- Natural Sciences increased from 36% to 36.4%.
- No academic division reached 35%.
- Junior year independent work fell from 60% to 58%.
- Senior year independent work fell from 60% to 59%.

Different disciplines approached the target in different ways. For example, the economics department established percentage of A's targets by course, with some courses having a higher percentage than others, with the overall goal of approaching the 35% general target.

Rochester Area Colleges and Universities

The Democrat and Chronicle (October 30, 2005) published the following percentage distribution of A's and B's combined for all undergraduate students in area colleges:

Robert Wesleyan – 85%
Nazareth – 82%
University of Rochester – 80%
SUNY Geneseo – 72%
Geneseo CC – 66%
Monroe CC – 65%
RIT – 65%
SUNY Brockport – 63%
Hobart & William Smith – 63%
Finger Lakes CC – 54%
St. John Fisher - NA

RIT

Table I lists the undergraduate percentage grade distribution of A's and B's for RIT for the fall quarters of 1995, 2002, and 2004 by college. You can observe changes over a ten-year period and a two-year period. The ten-year period would appear to offer evidence of inflation. The two-year period would indicate, perhaps, a steady state variation around a combined total of 65%.

IS GRADE INFLATION A PROBLEM?

Yale's policy from the Blue Book is:

> "A" means excellent work.
> "B" means good work.
> "C" means average work.
> "D" means poor but passing work.
> "F" means unsatisfactory work.

With these definitions, which are pretty standard across academia, some people find a problem and others do not. Let us take each of these cases.

Grade Inflation Is Not a Problem

Three arguments can be made in support of there not being a problem:

- Students are *better* now. There are stricter admission standards and students have better high school preparation.

- Students *work harder* now. There is more competition for jobs and graduate school, especially since more women and minorities are attending college. Given the increased emphasis on career preparation, students work harder to be sure they are competitive in the marketplace. Good students working harder means that they earn better grades.

- Teachers *teach better* now, and therefore, students are learning more. No longer are grades in many courses determined on the basis of one mid-term and final exam or one research paper. Now multiple exams and papers are expected. Lectures are more often replaced by classroom discussion, team projects, and studio approaches.

In summary, if students are better, if they work harder, and if they are taught better, you would expect performance – and therefore, grades – to be higher.

Grade Inflation is a Problem

I will identify eight arguments and considerations supporting the proposition that grade inflation is a problem immediately below:

- College is becoming too easy. There is lax grading and a watered-down curriculum.

- A consumer-based culture has emerged in education, in which students expect a reward for the money they spend to attend. This by itself leads to higher grades.

- Faculty seek higher student evaluations by awarding higher grades.

- The administration presses faculty to award higher grades in order to increase student retention.

- Faculty want to help student obtain jobs or graduate school admission, so they award easy grades. In this particular case, if they think other universities are awarding easy grades, they don't want their equally able students to be disadvantaged.

- The Great Britain House of Commons are discussing fixed percentages for high school and university grades because of the perception of grade inflation. They cite the fact that high school "A" grades have increased to 23%, and the number of undergraduate college students receiving "firsts" or "upper seconds" increased from 47% in 1994-05 to 55% in 2000-01.

- A recent UCLA survey reports that currently 48% of all college freshmen had an "A" average while they were in high school; in 1968, that percentage was 18%. In contrast, SAT verbal scores were 514 in 1976 and fell to 506 in 2002; SAT math scores were 507 in 1976 and increased slightly to 516 in 2002; the verbal and math SAT scores combined were 1021 in 1976 and 1022 in 2002. In short, grades have gone up significantly while the SAT scores remain constant.

- The RIT 2005 freshman class has the following attributes:

    - The average grade point average coming from high school is between 3.6 and 3.7, which reflects an average grade of 90.

    - 27% of the students are in the top 10% of their high school class.

    - 50% of the freshmen are in the top 20% of their high school class.

    - 90% of the students are in the top 50% of their high school class.

GRADING APPROACHES

One grading approach is based on the normal probability distribution. Recognizing that there will be variability in the students admitted to the university, and that a given university at any given time will have a central tendency (median or mean) for the students in a given class with some dispersion around it, leads – according to one testing and measurement approach often advocated – to a distribution in which there are approximately 6% A's and F's, 22% B's and D's, and 44% C's. One advantage with this approach is that it recognizes the central tendency of the abilities of a particular student group and gives every student the opportunity to earn an A or a B. Different universities or different colleges within a given university may have groups with different abilities on average, and this approach recognizes that difference

and gives students the opportunity to compete for A's within the talent pool of their peers in that particular college or university.

With regard to different colleges admitting different populations of talent, if we refer to Table II, you can see how selectivity (as measured by the percentage of applicants admitted) and SAT scores vary across a sample of highly selective colleges.

A second approach utilizes an absolute standard. The professor establishes what is required for an A, B, or a C. If all the students meet the standard for an A, they all get an A. If none of them do, then there are no A's awarded. In this case, the grades could be skewed towards A's and B's or, depending on the standards of the professor, they could be skewed towards D's and F's.

A third, and probably more common approach, is a blended approach. The professor sets some standards and expectations for A's and B's, and then looks at the actual grade distribution according to that standard. If no one gets an A or a B, the professor may decide that he or she was too stringent and may "curve" the grades so that, let us say, a 79 becomes an A and a 43 becomes a C. On the other hand, when all the grades are reviewed, if 90% of the people receive an A, the professor could decide to make an A equal to 96, with 95 becoming a B. This occurs from time to time; however, it is very hard to tell a student who earns a 95 that it is not an A. In this case, the professor would typically say (to himself/herself) that next time around, the standards will be set higher. Whichever approach is taken by a given faculty member – normal distribution, absolute standard, or blended approach – the net result has been an increase in the number of A's and B's.

CONCLUSION

I am sure I have omitted other relevant considerations, perspectives, and approaches to answering the two questions:

- Do we have grade inflation?
- If we do have grade inflation, is this bad?

I am leaning, on balance, towards the stance that we do not have a problem or at least a serious problem. However, I would like to hear what the RIT faculty and deans have to say.

Table I

RIT Undergraduate Percentage Grade Distribution

1995, 2002, 2004 Fall Quarters

RIT	A	B	A+B
1995	30	29	59
2002	37	29	66
2004	37	27	64
Business			
1995	26	31	57
2002	22	38	60
2004	21	37	58
Engineering			
1995	32	31	63
2002	41	24	65
2004	42	26	68
Liberal Arts			
1995	27	35	62
2002	35	33	68
2004	38	30	68
CAST			
1995	38	28	66
2002	43	30	73
2004	41	25	66
NTID			
1995	29	26	55
2002	31	29	60
2004	34	30	64
Science			
1995	28	25	53
2002	30	27	57
2004	30	26	56
CIAS			
1995	36	37	73
2002	46	34	80
2004	44	33	77
Computing			
1995	NA	NA	NA
2002	42	30	72
2004	41	27	68

Table II

Selected (from 150) Universities Admitting Less Than 50% Of 2004 Freshman Class *

College	Number of Applicants	% Admitted	SAT Scores Mid 50%
Amherst	5,489	21	1360 – 1550
Brown	15,286	17	1310 – 1520
Bucknell	8,324	36	1230 – 1380
Cal. Inst. of Tech.	2,818	20	1450 – 1570
Carnegie Mellon	14,114	42	1290 – 1480
Cornell	20,822	29	1290 – 1490
George Washington	20,159	38	1180 – 1370
Harvard	19,752	11	1400 – 1580
Johns Hopkins	11,102	30	1300 – 1490
Lehigh	9,847	38	1220 – 1380
MIT	10,466	16	1410 – 1560
NYU	34,457	35	1220 – 1410
Northeastern	24,436	42	1120 – 1310
Princeton	13,695	13	1370 – 1560
R. I. School of Design	2,511	34	1080 – 1330
Tufts	14,728	27	1290 – 1470
U.S. Air Force Acad.	12,430	13	1200 – 1380
U of R	6,236	48	1230 – 1410
Wellesley	3,944	37	1280 – 1460
Williams	5,705	19	1330 – 1520
Yale	19,682	10	1400 – 1560

*** Denotes selected universities admitting more than 50%.**

* Baruch College		77	
* Case Western Reserve		71	
* Clarkson		85	
* Drexel		73	
* RPI		75	
* Univ. of Michigan		62	
* WPI		75	
* RIT	9,941	65	1130 – 1310