



Are High School Grades Inflated?

Introduction

How useful to colleges are high school grades alone in making admissions and placement decisions about students?

Typically, along with scores on entrance examinations such as the ACT, colleges and universities require applicants to submit their high school transcripts, as well as teacher recommendations and other supporting evidence to be considered in making admissions decisions. ACT scores and cumulative high school grade point average (GPA) represent quantitative measures that are typically used by colleges to predict a student's first-semester or first-year college GPA. The results of these predictions also serve to provide additional information in the admissions process and, if the student is admitted, in the course placement process.

A college's use of these two measures to predict first-year potential or success is based on the premise that both variables provide valid and reliable measures of students' high school learning and achievement. However, high school GPA may not always be an accurate measure of a student's true level of achievement.

This can be due to variability in the standards different teachers in different schools may use to assign grades to their students, or the characteristics of the particular population to which a student is being compared (whether fellow class members or students in other classes taught by the same teacher). Another complicating factor is variability in the pedagogical purposes behind the grades teachers may give. For example, some teachers may use grades not solely as a method of rating student achievement but also as a method of rewarding student effort.

One factor that is commonly believed to influence the reliability of high school grades is *grade inflation*, which can be defined as an increase in students' grades without an accompanying increase in their academic achievement. An important difference between grade inflation and other factors influencing the reliability of grades is that grade inflation is an increase in grades *over time* for students who are at the same level of achievement, while other factors affecting variability in grades result in assignment of different grades to students at the same level of achievement during the *same* time period. Because of this, grade inflation is not easy to detect. It requires both examination of grades across time and a stable measure against which to compare them.

For this reason, the existence of grade inflation is not universally accepted. Some who believe that grade inflation exists theorize that it is a result of "credential inflation": as the education level of the U.S. population increases, so also do the requirements necessary for entry into a wide variety of jobs. As job requirements increase—especially to the point where a college degree has become a minimum

qualification—teachers may feel the need to grade their students more leniently to enhance the students’ chances of gaining admission to college.

But regardless of the potential cause, is there empirical evidence for the existence of high school grade inflation? One way to answer the question is to compare high school grades to an objective measure of student achievement that is stable over time: the ACT Composite score is such a measure.

The ACT is an achievement test battery used by colleges for admission and course placement and is usually taken in the eleventh or twelfth grade. The ACT is designed to measure skills taught in typical college preparatory high school curricula. It is composed of four tests: English, Mathematics, Reading, and Science. A fifth score, the Composite score, is the average of the scores on the four subject tests. The ACT not only measures the knowledge and skills students have acquired during their high school years and their level of achievement as a result of their high school learning and instruction, but also serves as a measure of their preparation to undertake rigorous coursework at the postsecondary level.

By its design and construction, the ACT is unaffected by extraneous factors that can affect high school grades. ACT regularly conducts its National Curriculum Survey® to ensure that the content of the ACT is consistent with the high school curriculum. Different forms of the ACT are used both at the same time and over time. However, the test development process incorporates procedures to ensure that all forms measure the same content and have the same level of difficulty. Statistical adjustments are also employed to ensure that scores on all forms are comparable.

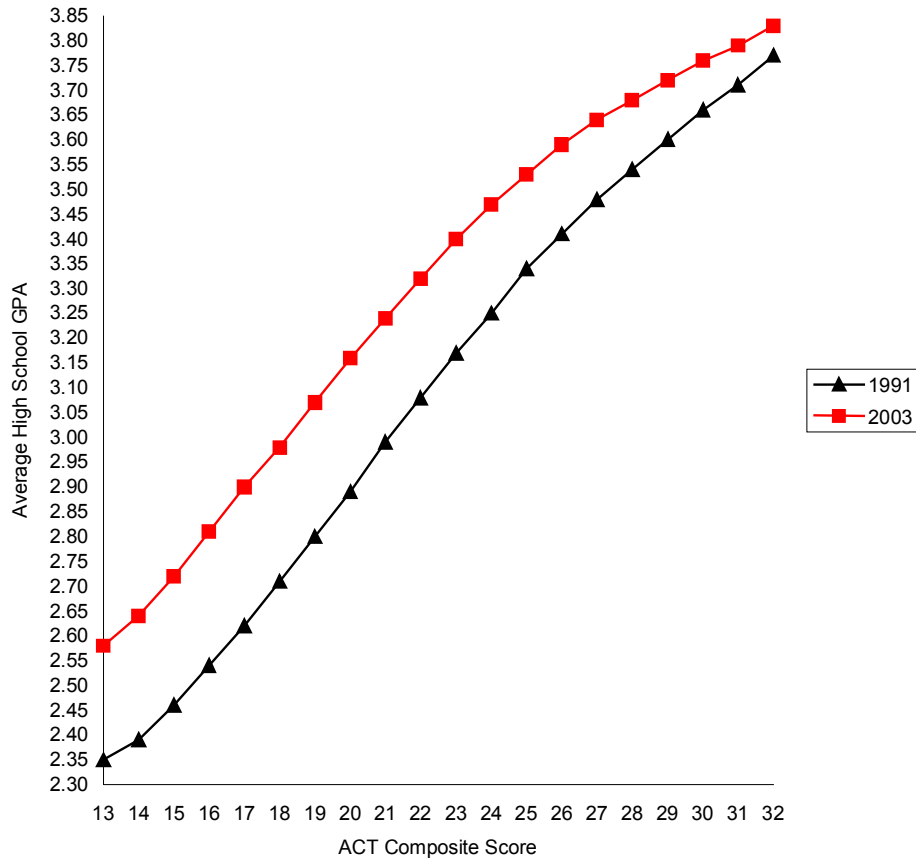
Thus the ACT is constructed to measure the same content from year to year, and technical procedures are employed to ensure that it has the same statistical properties over time. This is another reason that postsecondary institutions nationwide consider students’ ACT scores along with their high school grades when making admissions and placement decisions about students.

The Study

To find out whether high school grade inflation exists, we examined data drawn from students who took the ACT in the eleventh or twelfth grades and graduated from public high schools. Because grade inflation is by definition a factor that develops over time, we used data from a relatively long period, 1991 to 2003, or 13 years. The number of students in each year’s sample varied from about 600,000 to about 800,000. The students’ GPA was calculated based on their self-reported grades in 23 courses in English, mathematics, science, and social studies. Students report this information when registering to take the ACT.

The results of the study appear in the figure below. Students with the same ACT Composite score value have the same level of academic achievement from year to year. Hence, any increase in GPA from year to year represents grade inflation.

Average High School GPA for Students at Various ACT Composite Score Levels (1991, 2003)



Each point on each curve represents the average GPA for all students in 1991 and 2003 who earned that specific ACT Composite score. (Not enough students earn scores below 13 or above 32 to enable us to include these score ranges in the study.) The curve for 2003 is higher at every Composite score point than the 1991 curve, which is evidence of the existence of grade inflation. However, the amount of grade inflation varies for different Composite score values: it is highest between the scores of 13 and 27 and steadily lower with Composite scores above 27. This is because students with high ACT Composite scores tend to have higher GPAs, and there is less room for these GPAs to increase over time because GPA cannot exceed 4.00. The average amount of grade inflation is about 0.25, or about one-quarter of one grade point on a grading scale with a range of 4 points (0.00 to 4.00). This means that, during the 13-year period under study, high school GPA for ACT-tested public high school graduates increased by about 6.25 percent—without an accompanying increase in ACT Composite score.

But this may understate the average amount of grade inflation when we consider that far fewer Ds and Fs are given in high school than As, Bs, or Cs. Data for the 13 years of this study show that the percentage of students with GPAs below 2.00 is less than 5 percent. This suggests that the practical range of high school grades is 2.00 (C) to 4.00 (A). So, with half of the possible grade range effectively eliminated from consideration, one-quarter of a grade point now represents not 6.25 but 12.5 percent of the range. Therefore, it may be more accurate to

conclude that high school grades have inflated *12.5 percent* between 1991 and 2003.

Conclusion

Due to grade inflation and other subjective factors, postsecondary institutions cannot be certain that high school grades always accurately depict the abilities of their applicants and entering first-year students. Because of this, they may find it difficult to make admissions decisions or course placement decisions with a sufficient level of confidence based on high school GPA alone.

Given its independence from such extraneous factors that can dilute the value of high school GPA, the ACT Composite score is clearly a stable and useful complement to high school grades in situations such as college applicant selection and college course placement. Postsecondary institutions that use the ACT along with high school grades and other supporting evidence can therefore make important decisions about applicants and entering students with a greater degree of reliability and confidence.