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Sorting, Signaling, and Human Capital: ***An Analysis of Grade Inflation in Higher Education and its Effects on the Millennial Generation***



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by

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Submitted to The Department of Economics

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I hereby recognize and pledge to fulfill my responsibilities as defined in the Honor Code and to maintain the integrity of both myself and the College as a whole.

Tessie N. Bracken

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Abstract

College GPAs in the U.S. substantially increased between the 1960s and the 2000s; a matter referred to as grade inflation. A grade is inflated if a simpleminded student received a grade that is equal to or greater than a bright student because grade inflation tends to award progressively higher academic grades for work that would have received lower grades in the past. Also between the 1960s and the 2000s, study time decreased from 24 hours a week to 14 hours. Foremost, this analysis explores different economic theories that explain the increase in college GPAs, such as the sorting, signaling and human capital theories. Subsequently, I use multiple datasets from different time periods to document declines in academic time investment by full-time college students in the U.S. Lastly; the analysis ends with a case study to emphasize the main point that high grades are limiting academic work. For example, one of the studies revealed that an anti-grade inflation policy that raises grading standards would lead to incentives for students to dedicate more time to their studies. This information is used to conclude that there have been substantial changes over time in the quantity and quality of human capital production on college campuses, and thus, scholarly work is dis-incentivized for the millennial generation.

Introduction

Students want high grades for many different reasons; college grades can influence a student's graduation prospects, academic motivation, postgraduate job choice, professional and graduate school selection, and access to loans and scholarships. When high grades are difficult to achieve, students should work exceptionally hard in their effort to achieve them, but why would students try so hard in a class where everybody gets an A regardless of their effort? The fact of the matter is, they will not, yet students nowadays are graduating from colleges with higher GPAs than ever before. Students are receiving progressively higher grades for academic work that would have received lower grades in the past, which is the topic known as grade inflation. A grade is inflated if a low ability student receives a grade that is equal to or greater than a high ability student, making the most detrimental effect of grade inflation on education to be the reduction of student effort in their coursework. In other words, high grades dis-incentivize hard academic work.

An interpretation of grade inflation argues that patterns in grades cannot be considered separately from the incentives that students have to sort themselves strategically across departments. This argument, made by Herron and Markovich (2016), drew on a game theory model where students of varying abilities face a choice between enrolling in a department with inflated grades or a department without inflated grades. Departments with inflated grades are considered ability-concealing, whereas departments without inflated grades are considered ability-revealing. What appears to be grade inflation is a result of the fact that the ability-revealing department attracts highly talented students seeking to distinguish themselves from students of lesser ability. The students of lesser ability avoid the ability-revealing department because it has a high cost, making it time consuming. Sabot and Wakeman-Linn (1991)

mentioned nine different colleges and universitie, and the authors presented evidence that grade inflation has led to a separation between high-grading and low-grading departments in grading policies. The students attracted to high-grading policies are either low-ability or mediocre, and the students attracted to low-grading policies generally are high-ability.

In the 1990s, Cornell University had a number of discussions about grade inflation, leading the Faculty Senate to adopt a new grade reporting policy in 1996 (Bar, Kadiyali, & Zussman, 2009). This grade reporting policy required the publication of course median grades to the Internet and a report of course median grades in student transcripts. This was meant to provide more information to employers or graduate schools and to produce more meaningful letter grades. Ultimately, enrollment into leniently graded courses increased.

Grading leniency can be measured as the difference between the average grade for a class and the students' average GPA. Grading reliability for a class can be measured as the correlation between the students' GPA and the grades they received in that class. Data from over 50,000 course sections used by Millet (2016) show that lenient grading is associated with lower grading reliability. Although grading leniency may be a symptom rather than a cause of low-grading reliability, reducing grading leniency may lead to improved grading reliability, which would lead to better signals for employers and graduate schools.

Presently, in a labor market where firms must rely on job applicants' college transcripts to assign jobs, universities can choose to inflate grades. Schools choose to do this because some employers find it difficult to determine whether a school has many good students or easily gives good grades, which gives the school an incentive to inflate grades in order to help undistinguished students succeed. For example, if a university gives good grades to bad students, they are helping the bad students secure better jobs in the future though, in doing so, the

university ignores the impact that will have on the average quality of students with good grades. As Yang and Yip (2003) indicated, grade inflation arises due to a free-rider problem, and is contagious.

Furthermore, grade inflation is worsened by the importance of university reputation and skills differentials. The media has exposed that grade inflation is a concern for higher education in North America by saying that it may be due to consumerism by universities that now compete for students (Germaine & Scandura, 2005). Unfortunately, keeping students happy and paying might be emphasized more than learning. At schools with modest selectivity, grading is as generous as it was in the mid-1980s at highly selective universities. These highly selective schools have, in turn, continued to inflate grades. Chan, Hao and Suen (2007) said that if there is grade inflation at one school, then it is easier for another school to pass their own undistinguished students with inflated grades. So, these easy grades act as compliments to the students, which could lead to the continuation of exaggerating grades at other schools. For instance, data was collected for the years 1995, 2000, and 2007 from 48 U.S. law schools and was used to analyze admissions decisions because university grade inflation appears to have been prevalent during those years. Higher rates of grade inflation were associated with greater increases in emphasis on standardized test scores (Wongsurawat, 2009). Students were getting their grades inflated so the law schools would pay closer attention to their good grades, getting them a job in the long run.

It is likely that at many selective and highly selective schools, undergraduate GPAs are now so saturated at the top of the grade distribution that they have little use as a motivator for students or as an evaluation tool for graduate and professional schools and employers (Rojstaczer & Healy, 2012). Since instructors have gradually lowered their standards, an “A” has become the

most common grade on college campuses in the U.S. As Rojstaczer and Healy (2012) found contemporary data that indicated that, on average across a wide range of schools, A's represent 43% of all letter grades, which was an increase of 28 percentage points since 1960 and 12 percentage points since 1988. The data also indicated that D's and F's total nearly less than 10% of all letter grades.

School grade point averages in the U.S. climbed between the 1960s and the 2000s. Over a similar period, study time declined by about half. The results disclosed by Babcock (2010) show that normal study time would be around 24 hours per week in 1961, while the normal study time is about 14 hours per week in present day. This decline in study time occurred for students from all demographics, including who worked and who did not, every major, and four-year colleges of every type, degree structure, and level of selectivity (Babcock & Marks, 2010).

The most reasonable explanation for these findings is that standards have fallen at postsecondary institutions in the U.S. If it is believed that declining study time signifies declining accumulation of human capital, then this decrease in student effort is a major problem. The human capital theory suggests that individuals and society derive economic benefits from investments in people. Therefore, human capital is extremely important, both for individuals who acquire it and for the nation as a whole. The article by Sweetland (1996) emphasized that human capital research has not been limited to education, and it usually includes empirical measures of education and produces results that affect educators and education policy. As scholarship in the field is viewed, it is safe to assume that education increases or improves the economic capabilities of people. Evidence indicated that increases in human capital of the workforce accounted for most of the economic growth in the U.S. over the twentieth century (Babcock & Marks, 2010). Clearly we cannot afford to let grade inflation continue as such.

Adelman (2008) claimed that increasing grades can be explained by improved student ability or teaching quality. This idea contrasts the theories used throughout this analysis by saying that increasing grades are not problematic because they could prompt students of average ability to invest in an academic degree, instead of learning a skilled trade at a vocational school. Also, Brighouse (2008) emphasized that, to assume that there has been no improvement in student quality over the past 30 years is to assume that there have been no efficiency gains in higher education over this period. Although grade inflation does not evenly distribute through departments, it is arguable due to the subjective nature of grades, that interdepartmental grading practices were not equal in the first place.

Yang and Yip's (2003) welfare analysis found that universities, firms and students are worse off in a world with grade inflation. Now, liberal education will be judged primarily on how it manages issues traditionally at the center of its democratic mission: accessibility to students, openness to oppositional ideas, the quality of an undergraduate education, relevance to society, and defense of academic freedom (Cote, Allahar, & Fallis, 2008). Over the years, the student mix at schools has become more varied and the learning environment is more complex than assuming all models are the same and a lot has changed, especially during the 32 years following the 1980 sample of the Nelson and Narens general knowledge norms. The 1980 sample published normative information for a set of questions over different domains of knowledge. The authors created 300 questions and assessed several cognitive and metacognitive measures, including the probability of recall and the latency to generate a response. Tauber, Dunlosky, Rawson, Rhodes and Sitzman (2013) observed that out of the 300 questions asked, participants in 2012 had a higher probability of recall for only three questions and a lower probability of recall for 139 questions. It was also discovered that the current group of college students failed to grasp

important facts of geography, history, science, math, and the arts. For example, in 1980, the fact that Paris is the capital of France was ranked number six in terms of questions answered correctly, but by 2012 it dropped to number 23 overall. Regrettably, college students generally seem to know much less today than 30 years ago.

For the remainder of this analysis, I use economic theories to explain in greater depth some of the developments responsible for grade inflation. Empirical evidence is provided to show significant changes in student time investment for their studies in comparison to lower grading standards, showing that low student effort is dependent upon the increase in average grades. I conclude with a case study in order to emphasize the main points that are discussed throughout the analysis, such as how an anti-grade inflation policy that raises grading standards could lead to incentives to exert more effort into academics (Butcher, McEwan, & Weerapana, 2014). The main conclusion that one can draw from these many lines of data is that fixing grade inflation by returning to a system in which low performing students receive low grades will be the motivator that will return student engagement and effort with their coursework to acceptable levels.

Economic Theories of Grade Inflation

There is substantial research on higher education, in and out of the United States, that brings attention to the marvels of grade inflation. Through this theoretical framework I offer three interpretations of this perplexing occurrence, which are all directly related to three economic theories: the sorting, signaling, and human capital theories. First, the sorting theory argues that patterns in grades cannot be considered separate from student incentives to sort themselves into specific courses (Herron & Markovich, 2016). Consequently, this suggests that average grades reflect student selection into coursework of interest. Second, since employers cannot tell whether a school has a lot of good students or simply administers easy grades, the signaling theory claims that a school has incentives to inflate grades to help the mediocre students, notwithstanding the value of good grades for the good students (Chan, Hao, & Suen, 2007). Third, if student effort is an input to the education production system, then falling time investment could mark the declining production of human capital (Babcock & Marks, 2010). Therefore, if a course requires a lot of work, the student will be more likely to enroll in a course with a smaller time commitment as opposed to a course with a significant workload.

In the following chapters of this analysis, the ideas posed for the three theories are closely examined, especially the human capital theory since the various allocations of time by students are important to consider. The amount of time that students spend on work outside of class is a good indicator of student effort, and if student effort is a meaningful input to the education production process, then declining time investment could mean a dramatic change in the way human capital is produced on college campuses. Lastly, in the conclusion of this chapter, I synthesize all three interpretations of grade inflation into a cohesive argument in which inflated grades discourage strong academic performance.

Sorting Theory and Grade Inflation

A student's choice between academic departments is made by an interest, or lack of interest, in signaling their inherent ability level to a labor market that they will enter upon graduation. Spence (1973) argued that students attend four-year institutions in order to earn a transcript, which can later be used to indicate their ability to employers. When discussing the choices students have over departments, this interpretation of grade inflation suggests that patterns in grades cannot be considered apart from the incentives that students have to sort themselves strategically across departments. According to Herron and Markovich (2016), students of varying abilities, low or high, face a choice between enrolling in a department that is ability-concealing, or obtains inflated grades, as opposed to enrolling in a department with grades that are ability-revealing. Nonetheless, grade inflation is a result of the fact that the ability-revealing department will attract highly talented students seeking to distinguish themselves from students of lesser ability. So, it is assumed that the post-graduation labor market incentivizes high ability and, as previously suggested, being high ability is valuable to a student. It is also assumed that the post-graduation labor market can distinguish between departments that are ability-revealing and ability-concealing, but we can argue that employers, graduate schools, and other post-graduate institutions are not informed about which departments give ability-discriminating grades.

A grade is considered inflated if a low ability student receives a grade that is equal to or greater than a high ability student since grade inflation tends to award progressively higher grades for academic work that would have received lower grades in the past. The students here differ in their underlying levels of talent, which prompts students to have different preferences for the extent that they want their grades to reveal their underlying abilities (Herron &

Markovich, 2016). It is possible to try to predict student performance in future classes by looking at introductory course grades that are received in low-grading departments and comparing them to grades given in what appear to be grade-inflating departments, though. The authors thought that certain departments' introductory courses inflate grades, but they mentioned that grading practices of individual departments cannot be assessed by observing whether they award many "A" grades or "C" grades. Also, Herron and Markovich (2016) said that alternate predictors of student ability are associated with student grades in low-grading departments, but not departments that routinely give high grades. Ultimately, inflated grades effectively mask student abilities and diminish the extent to which grades show underlying skills and talent levels.

Signaling Theory and Grade Inflation

In economics, the free-rider problem occurs when those who benefit from resources, goods, or services do not pay for them, which results in a depletion of those goods or services. This interpretation of grade inflation is the phenomenon of passing off a bad student as a good one by awarding the bad student the same grade as the good student, and thus, making the bad student a free-rider in this context. So, in a labor market where firms must rely on job applicants' college transcripts to assign jobs in order for the students of lesser ability to have better chances of finding employment or gaining acceptance to a graduate school following graduation, universities can choose to inflate grades. In doing so, the university ignores its impact on the average quality of students with good grades. Ergo, grade inflation arises from the free-rider problem and is infectious; "bad" grades drive out "good" grades.

Moving forward, it is easier to think about inflated grades in a more general context. For example, consumers often find themselves in the situation of relying on product evaluations from informed experts, yet some experts have close ties with producers potentially leading to

misrepresented information that steers consumer decisions in the desired direction (Chan, Hao, & Suen, 2007). This leaves consumers with the task of deciphering information on said evaluations, fully aware of the inherent bias, in much the same way that employers have to interpret the grades of job applicants issued by universities.

Chan, Hao and Suen (2007) argued that when a school awards many good grades, the labor market can not fully distinguish if this is due to an overly liberal grading standard or if the school has a large proportion of high-ability students. As a result, the school has an incentive to help some low-ability students by giving them good grades. However, this decision hurts the high-ability students because the value of good grades will become diluted. This makes differentiating worker productivity for certain jobs difficult for future employers or graduate schools. Nonetheless, the universities have realized that they benefit from placing high-ability students in optimal task assignments in the labor market, so a school with more high-ability students has stronger incentives to give more good grades. This large percentage of good grades cause the labor market to view it as a signal for a large percentage of high-ability students (Chan, Hao, & Suen, 2007). Then the high-ability students feel like their peers are going to free-ride off of their hard work and good grades, and consequently, reduce their academic performance to avoid being one of the few high performing people.

Since grades convey information about the caliber of students, schools adopt overly liberal grading standards because of the competition within and between schools for good grades. Also, since schools with more good students have an incentive to give higher grades, employers use a liberal grading curve as a signal of high overall student quality in the school (Bar, Kadiyali, & Zussman, 2009). Inflated grades help mediocre students at the expense of good students and schools with a higher chance of having a large fraction of good students are more likely to inflate

grades. This type of grade exaggeration by one school makes it easier for another school to fool the market with inflated grades. Thus, inflationary grading policies are strategic complements because they mutually reinforce one another, which provide a channel that makes grade inflation spread.

Competitive interaction among schools over grading is restricted to their signaling strategies. The manner in which grading policies affect the competition for students depends on the information they possess. If the students know their own types of grades before entering a school, then the high-ability students have an incentive to join schools with less exaggeration because they will not have to agonize about classmates free-riding as much as they would at a school with more exaggeration. Therefore, according to Bar, Kadiyali, and Zussman (2009), competition for good quality students serves as a constraint on grade inflation, and makes it theoretically possible for a school to inflate grades in order to attract a large pool of applicants. Let it be known that if the grading standards were to seriously and consistently differentiate between the good and bad students, then there would be no loss of information and grade inflation would be merely an issue of institutionalization.

Human Capital Theory and Grade Inflation

The human capital theory suggests that individuals and society derive economic benefits from investments in people, education being a primary investment (Sweetland, 1996). For example, if a school adopts lower grading standards, the students who normally receive a "B" grade now get an "A" and benefit from the new grading standards. Additionally, if some of the original "A" students benefitted because the lower standard for an "A" is easier to reach, others do not benefit because the lower grading standard requires significantly less time to fulfill than before. As standards are reduced, the low-ability students benefit by getting better grades than

they deserve, while some average students benefit by getting above average grades, and others simply do not benefit at all. Hence, the high-ability students receive high grades for the amount of effort they invest in a class, but their peers receive similar grades but do not invest that same effort.

Imagine a situation in which grades are used to assess performance, and a decline in grading standards is newly executed. Since many grades ("A," "B," "C," "D," "F," and the corresponding "+" and "-") are used, the initial dead weight loss – loss of economic efficiency – will be small. As grading standards are continuously reduced, fewer grades are used to assess performance, and in the long run, there will be just one grade, typically an "A," compressed at the top of the distribution accompanied by relatively large deadweight loss. So, on average grade inflation, or the reduction of standards, creates a permanently increasing deadweight loss (Babcock & Marks, 2010).

Below, Figures 1 and 2 display supply and demand curves that visualize the size of the initial deadweight loss in the short run after the implementation of lower grading standards and how large the deadweight loss could be in the long run, respectively. In Figures 1 and 2, the price axis represents student time investment and the quantity axis represents the "A" grade. "P" is the student time invested in academic work for the optimal number of A's from society's perspective, "Q." So, "P'" is the amount of student time invested after grade inflation and "Q'" is the number of A's given after lowering the grading standards. Lastly, "DWL" means the deadweight loss and it shows the amount of time students would waste in order to get an "A" in comparison to how much they actually spend. Grade inflation will shift the supply curve to the right and the demand curve will remain the same, and since grades are inflated, instructors award more A's while the student time invested in academic work decreases.

Figure 1: Human Capital Theory Visual for Grade Inflation – Short Run[1]

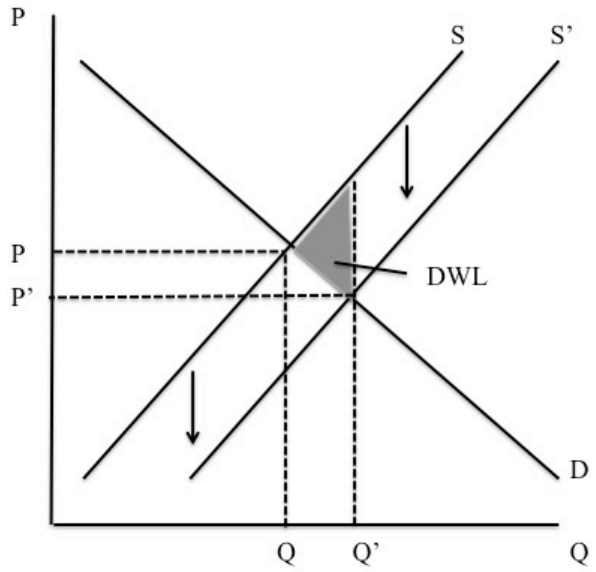
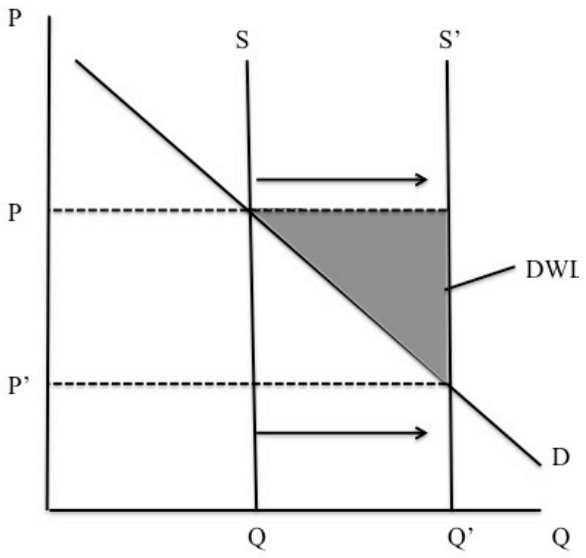


Figure 2: Human Capital Theory Visual for Grade Inflation – Long Run[2]



This is exactly what Sabot and Wakeman-Linn (1991) thought when they argued that, in order to rectify the harm done by differential grade inflation, the standards of the disciplines that

[1] Human capital theory visual for grade inflation in the short run; P = time investment of students (P – before grade inflation, P' – after grade inflation); Q = quantity of A's (Q – optimal number of A's from society's perspective, Q' – number of A's after grade inflation); DWL = deadweight loss

[2] Human capital theory visual for grade inflation in the long run; P = time investment of students (P – before grade inflation, P' – after grade inflation); Q = quantity of A's (Q – optimal number of A's from society's perspective, Q' – number of A's after grade inflation); DWL = deadweight loss

experienced relatively more grade inflation should be raised, as opposed to lowering the standards where little grade inflation was experienced. Likewise, schools should lower grading standards for departments that, according to the signaling theory, have many high-ability students, and raise the standards for departments with lesser-ability students. Instead they lower the standards for high-ability students making it easier for low-ability students to succeed, which will lead to the distribution of more A's and the compression of "A" grades on the grading scale.

En masse, differential grade inflation distorts student incentives with respect to choice of programs and courses, and uniform grade inflation perverts incentives with respect to the expense of student investment in courses and programs (Babcock & Marks, 2010). As suggested by a number of human capital models, declining time investment may signify declining production of human capital because student effort is considered an input into the education production process. Hersch and Merrow (2006) emphasized this point by arguing that increased market pressures have caused colleges to accommodate students' desires for leisure by reducing grading standards. Moreover, education consistently emerges as the prime human capital investment because education improves the economic capabilities of people, while providing few benefits beyond immediate gratification.

Discussion

In this chapter I have discussed three economic theories that can be easily used to explain some of the causes of grade inflation. The sorting theory suggests that students will sort themselves into classes based on self-perceived ability across departments, and student sorting will increase in the presence of increased information about departmental grading practices. Students can create perceptions about the difficulty of grading by looking at the increased available information for a class, and determine whether or not to enroll in the class based on that

information. From the student perspective, this is important because the incentives for getting good grades are essential since transcripts are used to signal ability to future employers.

It has been argued that inflated grades are necessary to help students excel in a competitive job market, and while that may be true for some, grade inflation is a lose-lose situation that imposes major costs to society at the national level. Under regular inflation, prices have the ability to rise without limit, but under grade inflation, since grades are capped at either "A" or A+, there is a greater concentration of students at the top of the distribution. According to the signaling theory, this grade compression diminishes the value of grades as an indicator of student abilities to graduate schools or future employers. Also, since grading policies affect the overall satisfaction of the student, schools have implications for the competition of students and the sorting of students by department. This aims to give lower-ability students better opportunities for future employment, but it is at the expense of the high-ability students. For example, if a graduate school sees a department has a high average GPA, then they will assume that the department is full of high-ability students. Unfortunately, this potentially means that the high-ability students worked hard to get good grades while the lower-ability students are reaping the benefits of that hard work, or free-riding.

Without grade inflation, a truly outstanding student might be awarded an "A," while a very good student might receive a B+; with grade inflation, both students receive an "A." The human capital theory explains that the lower grading standards that come with grade inflation change the optimality for students to work hard to receive those grades because of the required increase in time investment. The students that do not benefit from the lower grading standards have the potential to lose a lot of motivation for schoolwork because their classes require less time and effort, which diminishes their original capability. As standards are reduced, the mediocre

students benefit, while a number of ordinary students benefit and others do not, ultimately making the high-ability students receive the least amount of benefits from the lower grading standards.

Grade inflation has been consistently on the rise since the early 1960s, but it started to rise at a faster rate in recent years. Millennials – anyone reaching adulthood in the early 21st century – are not the only group to deal with the effects of grade inflation, but since it has been on the rise, they surely deal with it the most. Millennials may be guilty of putting in the least amount of work in order to succeed, but that does not make them lazy. The real problem is the epidemic of grade inflation that has permeated the education system and has made the vast majority of students complacent. For instance, if a 3.0 is seen as an acceptable GPA and to earn it the student only has to work 30 minutes a day, the student is not likely allocate more time to academics. The 30 minutes a day is a robust indicator of the amount of effort the student will put into the class and can be seen as a key input to the education production process. Since this amount of time is so small, the way human capital is being produced seems like it is a small but significant priority on college campuses. Yes, grades are important, but handing out good grades will only take away from student commitment, which consequently dis-incentives hard work.

An Empirical Analysis: Nominal Costs of Grade Inflation

The number of hours worked is used as a basic unit of measurement in applied economics, and the number of hours spent studying by students is used as this unit of measurement in education economics and in this analysis. Although trends in hours studied have been documented over time, the time-use associated with education attainment has gathered less attention. Through this empirical examination, I find that full-time college students in 1961 devoted about 40 hours a week to academics, which includes class and study time, whereas full-time students in 2016 invested about 30 hours. This decline in academic time investment is relevant to investigations on human capital because it may indicate a decline in the production of human capital. Student effort is seen as an input to this education production process, and to the extent that human capital of the workforce impacts the economy at large, the significance of the decrease over time in this input to human capital production is important to know.

Later in this chapter, I show the steady increases in grade inflation over time from around 1960 to 2016. This data is used to articulate how grade inflation increases over time and how that correlates to the decline in study hours, showing that easy grading, or lower grading standards, dis-incentivizes rigorous academic work and that millennials currently experience it the most.

Average Student Time Use – Data

It is necessary to pool a wide range of datasets from multiple sources when documenting changes in academic time investment. Some of the issues in gathering data from surveys are that the difference between probability samples and non-probability samples is crucial because coverage problems can significantly impact data quality, online survey response rates are generally low and are varied, and the post-survey adjustments that happen over the years leading to non-coverage and non-response problems. In this empirical examination, data is used from

three different years: 1961, 1981, and 2016, and the data are restricted to full-time students at four-year colleges. Also, the datasets are different for all years. Below, I briefly describe the data used in this analysis, and the corresponding summary statistics are in Tables 1 and 2.

1961 – Project Talent

Project Talent (1961) is a nationally representative random sample, and it extracts time use response in continuous hours rather than ranges. The primary survey question is: *"Indicate below how many hours a week, on the average, you spent in each of the following kinds of activities during your first year in college."* Under this question there are a number of different activities listed, but *"Studying (Outside of class)"* is the main focus in this analysis. These questions are asked in a one-year follow-up to an earlier survey of students who were high school seniors in 1960. The data was randomized at the high school level and later tracked respondents with 1-year, 5-year, and 15-year follow-ups, where the 1-year follow-up contains the data on study time.

1981 – The National Longitudinal Survey of Youth, 1979 (NLSY79)

The 1981 college module of the NLSY79 asks current college students at all levels, first-year through senior, how many hours in the last week they *"spent studying or working on class projects."* The participants are asked this question in two different settings, once in reference to studying *"on campus"* and once in reference to studying *"off-campus,"* and these are summed to gather weekly study times. Also, like Project Talent, this survey evokes responses in hours, rather than ranges.

2016 – National Survey of Student Engagement (NSSE)

The NSSE, administered annually since the year 2000 by the Indiana University Center for Postsecondary Research, was designed to provide information on student engagement and

personal development during postsecondary education; Allegheny College is a regular participant. In this survey, the group consists of the first-year and senior student populations at participating colleges. The NSSE asks students *"About how many hours do you spend in a typical 7-day week doing each of the following?"* One of the activities is *"Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)."* Responses are: *"0 hours/week, 1-5 hours/week, 6-10 hours/week, 11-15 hours/week, 16-20 hours/week, 21-25 hours/week, 26-30 hours/week, more than 30 hours/week."*

Average Student Time Use – Results

The most direct way to compare across specific time periods is to show all data grouped together in tables, emphasizing the differences in study time between each period. It is also easiest to examine study time percentages at common time intervals. The second line of Table 1 shows cumulative distribution values (percentages) of 20 hours a week or more for all samples. In 1961, 67% of full-time students at four-year postsecondary institutions studied for more than 20 hours a week. In the 1981 NLY79 survey, only 44% of students studied 20 hours or more a week, and in the 2016 NSSE survey, only 24% of students studied at least 20 hours per week. Table 1 includes summary statistics at other time intervals, such as class time and time spent working, too.

Table 2, and the remainder of this examination, focuses on means. Project Talent and the NLSY79 were administered to randomized national samples. Findings from these surveys are found in columns 1 and 2 and determine changes in time use between 1961 and 1981. The 2016 NSSE survey contained the same type of questions and response criteria, and was administered to full-time first-years and seniors. In columns 3 and 4, I compare NSSE and Project Talent responses to detect changes in time use between 1961 and 2016. The last columns in Table 2

display results for time use between 1981 and 2016. These data reveal study time declines of 4.68, 9.68, and 5 hours per week for the 1961-1981, 1961-2016, and 1981-2016 time periods, respectively. Lastly, Table 2 shows decreases in study time and rising work hours from 1961 to 1981, 1961 to 2016, and from 1981 to 2016. Here, it is documented that full-time students at four-year colleges in the U.S. are investing much less time into their academics than previous years.

Table 1: Descriptive Statistics – Full-time Students at 4-year Postsecondary Institutions

	PROJECT TALENT 1961 (NATIONAL SAMPLE) MEAN	NLSY79 1981 (NATIONAL SAMPLE) MEAN	NSSE 2016 (NATIONAL SAMPLE) MEAN
Study (hrs/wk)	24.43	19.75	14.75
Study > 20 hrs/wk	0.67	0.44	.24
Study > 16 hrs/wk	0.72	0.54	.43
Study < 5 hrs/wk	0.07	0.14	.13
Class (hrs/wk)	-	15.84	-
Class > 20 hrs/wk	-	0.19	-
Class > 16 hrs/wk	-	0.38	-
Class < 5 hrs/wk	-	0.07	-
Work (hrs/wk)	4.12	8.25	6.16
Work > 20 hrs/wk	0.05	0.14	.12
Work < 20 hrs/wk	0.22	0.31	.88
Not Working	0.73	0.54	.64
Observations	**17985**	**1314**	**226241**
Notes	**First-year**	**All years**	**First-year/Senior**

Table 2: Average Time Use – Full-time Students (hrs/wk)

	PROJECT TALENT 1961 1	NLSY79 1981 2	PROJECT TALENT 1961 3	NSSE 2016 4	NLSY79 1981 5	NSSE 2016 6
Means						
Study	24.43	19.75	24.43	14.75	19.75	14.75
(Dif)	4.68		9.68		5	
Class	-	15.84	-	-	15.84	-
Work	4.12	8.25	4.12	12.24	8.25	12.24
Academic	40.27	35.59	40.27	30.59	35.59	30.59

Time-series Data on Grade Inflation

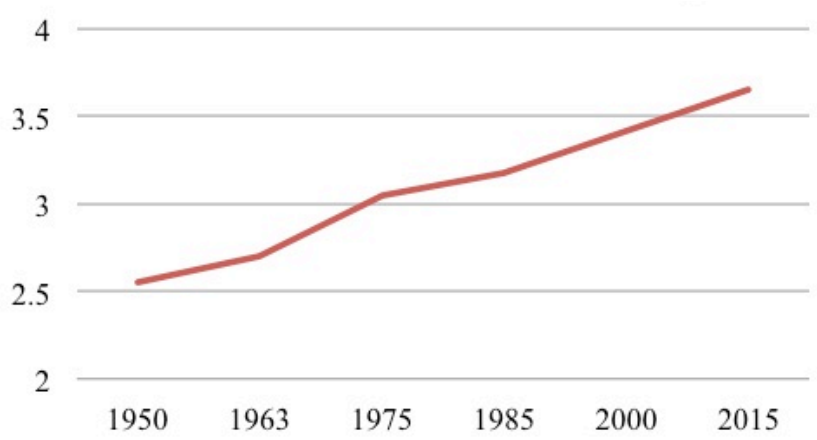
For roughly the past 100 years, colleges have been using an A-F grading scale. Until the Vietnam War, a "C" was the most common grade on college campuses, which was true for over 50 years (Rojstaczer & Healy, 2012). Luckily during the Vietnam War, the rise in college grades was well documented because many college professors started to inflate grades in order to protect bad students from being drafted into the war. One college administrator from Michigan State, Arvo Juola, collected annual average GPAs from colleges and universities across the country. At the end of the war, Juola documented the end of the Vietnam era of grade inflation and cautioned everyone against future inflation; this future that Juola had warned about began ten years later. For example, by 1973, the average student GPA at a four-year college was 2.9 and A's were twice as common as they were before the 1960s (Rojstaczer & Healy, 2012).

In the early 1980s, grades began to rise again in higher education at a very slow rate. By the late 1980s, GPAs were rising at a rate of 0.1 points per decade, which is a rate a quarter the size of what was experienced during the Vietnam era. In other words, A's were increasing in volume by about 5-6% per decade. During that period, which has yet to end, student course evaluations were mandatory, students became increasingly career focused, and tuition increases were exceptionally faster than increases in family income (Rojstaczer & Healy, 2012). Professors faced a new, more personal demand with respect to grading, which was to keep the students happy in order to keep college administration happy. An interesting way to think about this time period is to consider it an era of consumerism.

After 1995, A's had become the most common grade on average four-year college campuses. By 2013, the average college student had about a 3.15 GPA and 45% of all A-F letter grades

were A's. Below, Figure 3 contains data from Harvard University[3] showing the steady rise in grade inflation from 1950-2015:

Figure 3: 75 Years of the Rise of Average GPAs at Harvard University on a 4.0 Scale[4]



Discussion

Average GPAs rose substantially between the 1960s and the 2000s for all categories of post-secondary education in the U.S. As higher average grades were awarded to college students, study time substantially declined, which suggests that grades influence time spent studying. This declining time investment signifies declining production of human capital because student effort is considered an input to the education production process, and study time is a decent quantitative measure of student effort. Models of grade compression view grade inflation through strategic interactions between schools and employers, and as such, those models detach from the student effort decision to lower grading standards for departments with high-ability students and raise them for low-ability students. Instead, standards are lowered for high-ability students, which makes it easier for low-ability students to succeed and leads to the compression

[3] Harvard University is the oldest college in the United States (chartered 1650), and has become one of the most competitive universities in the nation. Most other colleges and universities try to remain competitive by using Harvard standards to make decisions leading to change.

[4] American Scholar, v. 45, 1976; Annual Report of the President, 1916; Harvard Crimson April 21, 1890; Harvard Crimson January 8, 1968; Harvard Crimson February 13, 2004; Harvard Crimson August 15, 2005; Harvard Crimson May 09, 2007; http://www.highereducation.org/crosstalk/ct0302/news0702-high_marks.shtml; Lewis, Harry, Excellence Without a Soul, 2006; Office of the Dean; http://features.thecrimson.com/2015/senior-survey/; http://features.thecrimson.com/2016/senior-survey/

of “A” grades on the grading scale. Since inflated grades compress the grade distribution and may be less informative signals of ability, rising grades differ from rising nominal prices.

The students’ value of marginal product is increased through education, but firms do not observe productivity, they observe whether the student met the educational standard. The labor market cannot fully distinguish between a school awarding many good grades due to low grading standards or a school awarding many good grades due to a large amount of high-ability students. As a result, schools have an incentive to help some low-ability students by giving them good grades. Thus, individual students only care about the signal associated with educational attainment, whereas someone who thinks about more than that signal takes levels of human capital acquired and its distribution into account.

Students signal their inherent ability to a labor market with their grades, but they make choices between academic departments based on an interest, or lack of, in that department. This argues that patterns in grades cannot be examined separate from the incentives that students have to sort themselves across departments. Whenever a grading standard rises, relatively high-ability students meet it by increasing academic effort, while others who have been marginally willing to meet the lower standard give up and reduce effort. Students of varying abilities then face a choice between enrolling in a department that requires a lot of academic work rather than enrolling in one that does not require much work. Indeed it can be assumed that that the labor market encourages high ability, which explains why students only care about the signal associated with educational attainment. Following this empirical examination, I realize that institutions determining the average GPA of its students should not focus on the total study time of students, but rather they ought to realize that if the average GPAs of their students continue to increase, then student effort will drastically decrease like it has been for over 50 years.

Case Study: Grade Inflation Dis-Incentivizes Hard Work

Given the problems for empirical as well as theoretical study, such as the induction problem – just because something happened in a certain way in the past does not mean it will happen the same way in the future – one has a question about the type of evidence to provide for the topic of grade inflation. Since the rules of the game usually change very broadly, a case study on the investigation of my hypothesis that grade inflation dis-incentivizes hard work for millennials drives me to examples spanning different types of research. Here, I proceed on the basis of various illustrations encompassing all the sorting, signaling, and human capital theories that provide insight on the phenomenon known as grade inflation. These theories are used to show that the relative rewards of grade inflation have in fact disinclined millennials to do hard academic work. Lastly, evidence suggesting that these lower grading standards can have a considerable influence on the quality of human capital production is offered.

Student Sorting into Courses

Grade Information and Grade Inflation: The Cornell Experiment

Cornell University published median course grades on the Internet in the spring of 1998. Bar, Kadiyali, and Zussman's (2009) analysis found that this provision of posting grade information online prompted students to opt out of courses they otherwise would have selected. The analysis also showed that since the policy was adopted a significant share of the acceleration in grade inflation can be attributed to the change in student course choice behavior.

Upon testing the hypothesis that students will be drawn to leniently graded courses, Bar, Kadiyali, and Zussman (2009) try to exploit major differences in course medians that were in place prior to the policy change. The results imply that before the policy change a grade difference of one-unit between an "A" and a "B" had an average median associated with a 0.014

percentage point increase in the number of students enrolled during the post-policy change period. This is representative of a significant rise in enrollment for the pre-policy change period since the median course enrollment was about 0.052 percentage points. The strongest results of this study were a coefficient of 0.020 relative to a pre-policy change median enrollment share of 0.029 percentage points. So, for these courses, a one-unit difference in the pre-existing grade was nearly associated with a 70% increase in the enrollment of the course. In sum, the evidence suggested that this grade information provision led to an increase of enrollment into leniently graded courses.

An introduction of information on grades increases the utility of some students but decreases the utility of others. Take for instance, a student who chooses a strictly graded course under both information provisions that does not benefit from the change because it pushes lower-ability students away from strictly graded courses, making this student's grades look subpar in comparison to the remaining students. Conversely, a student who chooses the leniently graded course benefits regardless of grade information availability because the leniently graded course will attract more low-ability students, and thus, the student's grade will look better relative to the median. Bar, Kadiyali, and Zussman (2009) concluded that enrollment into leniently graded courses and average grades could increase, which could theoretically have a negative effect on social welfare.

Grade Inflation and Course Choices

Some obvious nationwide issues in higher education include grade inflation and a widening gap between low and high grading departments. Sabot and Wakeman-Linn (1991) conducted a close examination at Williams College of what happens to grades and how those grades affect student course choices. During the academic year of 1985-86, the authors studied a

representative sample of 376 students enrolled at Williams College and the data came from student transcripts, student files including application forms, and a survey administered to these students that yielded a measure of the students need for achievement.

Five departments with the largest enrollments in their introductory courses were chosen for the analysis: Economics, English, Math, Political Science and Psychology. First, the authors estimated course choice functions and found that in Economics, English and Math, the probability of taking a second course significantly declined if the grade that the student received was low. The probabilities of taking an additional course in Economics and English are revealing because they are the largest low-grading department and the largest high-grading department, respectively. Of the students in Economics 101 who did not intend to major in the subject and were male, the majority of respondents, the probability of taking a second course was 18.2% less if they received a "B" rather than an "A," and 27.6% less if they received a "C" rather than an "A." Students in English 101, of those who did not intend to major in English and were male, also the majority of respondents, had a probability of taking a second course in English that was 14% less if they received a "B" rather an "A," and 20.3% less if they received a "C" rather than an "A." Moreover, the structure of predicted probabilities for students in introductory courses in Math, Political Science, and Psychology are similar to those for students in Economics and English.

In order for Sabot and Wakeman-Linn (1991) to decide if the comparative advantage signal contained in grades influences course choice, they added a continuous variable signifying the difference between the student's relative performance in the introductory course and the relative performance in all courses, as measured by GPA. The results said that the comparative advantage influenced course choice in both Economics and English. As students' rank increased

in the introductory class relative to their GPA rank, their probability of taking a second course increased. Also, the results said that accounting for signals of comparative advantage only marginally reduced the incentive effects of grades. While students consider comparative advantage, the incentive effects of absolute grades on course choice are far more powerful. Changing a student's grade in Economics from a "B" to an "A" would increase the grade incentive of taking a second Economics course, which would increase the probability of doing so by about 15%.

Students in high-grading departments are consistently less responsive to grades than students in low-grading departments. This is a consequence of the more compressed distribution of grades in high grading departments. Therefore, grades in high grading departments are less accurate predictors of performance, and various indicators of ability and motivation are poor predictors of grades in high-grading departments. If there are little differences in the grades received by the good, average, and bad students in the class, then there is less incentive for the instructor, and less pressure on them from students, to make accurate distinctions among students.

The Effects of an Anti-Grade-Inflation Policy at Wellesley College

In the early 2000s, the faculty and administration at Wellesley College concluded that grade inflation and compression mask valuable information and distort choices, potentially undermining the institution's credibility and reputation. Thus, the college implemented a policy in Fall 2004: average grades in courses at the introductory level and intermediate level with at least 10 students should not exceed a 3.33, or a B+. According to Butcher, McEwan, and Weerapana (2014), the policy had an immediate effect, bringing average grades down in previously high-grading departments. Faculty complied by reducing compression at the top of the grade distribution, but there is little evidence that they increased the use of very low grades.

Grade inflation is often blamed for distorting student choices across departments by misinforming them about their strengths. Therefore, it could be expected that a change in a grading policy would lead students to make different choices than usual about which course to take or in which department to major. The results indicated that majors declined in the treated departments by about eight students, which is representative of a relatively large decline of about 30%. The quantity of a graduating class majoring in the sciences increased, fell in the social sciences, and remained flat in the humanities.

The resulting compression of grades near the top reduced the information content of that signal, especially when the degree of grade inflation and compression varied across departments. When the policy lowered grades in the humanities and non-economic social science fields, gaps in grades by group appeared to be more similar than before across departments. Butcher, McEwan, and Weerapana (2014) proposed that if the increased gaps mean that administrators have better information about student learning in different departments, then academic support services can be targeted more efficiently to improve learning outcomes. So, an anti-grade inflation policy that raises grading standards could lead to incentives for students to exert more energy into academics.

Grades as Signals

Does Grade Inflation Affect the Credibility of Grades? Evidence from US Law School Admissions

Wongsurawat (2009) used admissions data from U.S. law schools in 1995, 2000 and found that during the late 1990s institutions that witnessed higher levels of grade inflation were more likely to enhance their emphasis on standardized test scores. These findings offer evidence that grade inflation contributed to decline of the credibility of grades as signaling devices.

Results implied that the marginal benefit of higher test scores increased between 1995 and 2000, and these findings show an impact of grade inflation on the value of grades as a signal of ability.

Though from 2000 to 2007 law schools seemed to have decreased emphasis on the role of both grades and test scores as admissions factors; the more selective a school, the less it relied on both factors. It could also be possible that graduate schools and employers simply refused to accept that a difference between a 2.5 and a 3.5 GPA 10 years ago corresponded to a difference between a 3.5 and a 3.75 GPA today. This thought process might lead to an increased emphasis on standardized test scores in making decisions.

Colleges and universities felt the need to inflate grades so students remain competitive enough to get into graduate schools or find future employment since the importance of standardized test scores had increased. Some students do not perform well on standardized tests, so if a school had increased emphasis on the tests, then the student would have a lower chance of acceptance. While inflated grades are helpful for the low-ability students, it takes away from the high-ability students because they are already able to get good grades without increasing their utility, and thus, reducing the amount of time the high-ability students invest in academics.

Where A Is Ordinary: The Evolution of American College and University Grading, 1940-2009

College grades influence a student's graduation prospects, academic motivation, postgraduate job choice, professional and graduate school selection, and access to loans and scholarships. Rojstaczer and Healy (2012) looked at the evolution of grades over the last 70 years at colleges and universities in the U.S. The data provided a means to examine how instructors' assessments of excellence, mediocrity, and failure changed in higher education. Rojstaczer and Healy (2012) collected historical and contemporary data on an A-F letter grade scale that was used at over 200 four-year colleges and universities. Through the use of averages

over time as well as regression models, the authors examined how grades had temporally changed and how grading is a function of school selectivity, school type, and geographic region.

Contemporary data indicated that, on average across a wide range of schools, A's represent 43% of all letter grades, an increase of 28 percentage points since 1960 and 12 percentage points since 1988. D's and F's typically total less than 10% of all letter grades. At schools with modest selectivity, grading was as generous as it was in the mid-1980s at highly selective schools. These prestigious schools have, in turn, continued to increase their grades. It is likely that many selective and highly selective schools have undergraduate GPAs that are so saturated at the top and have little use as a motivator for students or as an evaluation tool for graduate and professional schools and employers.

As a result of instructors gradually lowering their standards, an "A" became the most common grade on college campuses in the U.S. Without regulation, or at least without strong grading guidelines, grades at U.S. institutions of higher learning will likely continue to become less significant.

The Relationship Between Grading Leniency and Grading Reliability

Millet (2016) calculated the relationship between grading leniency and grading reliability based on a data set pertaining to 53,460 courses taught at one unnamed North American University over several years. All sections included 15 or more students with passing grades. The primary focus of Millet's (2016) study was to determine if grades are reliable measures and whether they were lenient; the study suggested that grading leniency is a result rather than a cause of low grading reliability.

A leniency score was computed for the difference between the average grade a class earned and the average GPA of the class's students at the end of the semester for each section.

So, if a section's average grade was a "B," but the students' average GPA was a 3.5, then the score was (0.5), indicating tough grading, whereas a positive score indicated lenient grading. Grading leniency ranged between a minimum of (1.36) and a maximum of 1.51. A grade lift of (1.36) is equivalent to a class of straight-A students receiving average grades slightly below a B-. Similarly, a grade lift of 1.51 is equivalent to a class of C+ students receiving average grades above an A-. Course section grading reliability scores were computed based on similar logic; for example, a section in which high-GPA students received low grades and low-GPA students received high grades earned a low reliability score. Grading reliability averaged 0.62, meaning that in most cases better students received better grades.

Overall, grading leniency is associated with reduced grading reliability. This association strengthens as grading moves from tough to lenient. It is also indicated that the decline in grading reliability associated with a one-unit increase in grading leniency is approximately 10 times larger among lenient-grading courses. Another noteworthy finding made by Millet (2016) is that the variance in student GPAs is a strong contributor to grading reliability in lenient- as well as tough-grading sections. This might also explain the weak results past studies found about the relationship between grade inflation and grading reliability, since the effect of increased grading leniency over several decades could have been moderated by a circumstantial increase in the variability of student abilities. Millet (2016) noted several limitations to this in his study, including that GPA is only a proxy for expected performance. Future studies of grading reliability should incorporate measurements of variability in student abilities, and that grading reliability should be incorporated as an independent variable when higher grades lead to higher scores on student evaluations of teaching.

Students may accept high and unreliable grades, but they might resent low and unreliable ones. This could help resolve the leniency versus validity debate; if the correlation between grading leniency and evaluation scores are particularly strong for lenient graders with low grading reliability, then the effect of higher grades may be interpreted as avoiding student dissatisfaction when grading reliability is low. As institutional norms for grading leniency become visible, extremely lenient graders may become less lenient, and this may force instructors to become more reliable in order to avoid student dissatisfaction. All in all, professors want to keep their jobs, so they offer good grades to get better evaluation scores that eventually lead to grades being unreliable signals for graduate schools and future employers.

The Decline of Human Capital

Anxious Academics: Mission Drift and Sliding Standards in the Modern Canadian University

The National Survey of Student Engagement (NSSE) annually monitors student engagement across the U.S. and increasingly in Canada. According to the NSSE, professors can expect 10% of postsecondary undergraduate students to be engaged and do the full amount of academic work, and 40% of students to do less academic work than expected, but enough to pass. Then there are the 40-50% of disengaged students who do very little work at all. Cote, Allahar, and Fallis (2008) focused on a book called *Ivory Tower Blues* that settles for a popular sociological abstraction called the "millennial generation," a homogeneous group of students born in the early 1980s who are claimed to share similar values and attitudes, in which disengagement is argued to be extremely common. Millennials experienced strong parental pressure to remain in school and are coddled by K-12 educational institutions that are more than willing to keep them in the system through grade inflation and social promotion.

The millennial generation is drawn from market research that Cote, Allahar, and Fallis (2008) proposed as an accurate portrait of a generation that is the product of a materialistic and consumerist society. Unlike earlier generations that had to read to acquire information, millennials can easily click around the Internet for information. Practice and experience in reading and writing, and the analytic skills they develop, are overlooked by the user-friendly technology of personal computers, video games, iPods, DVDs, and similar outlets that do not expand vocabulary, teach punctuation or grammar, stimulate the imagination, or cultivate an appreciation for intellectual culture among young people today. Students are more efficient in researching and writing term papers now than 50 years ago, but they also spend several hours a week using computers for fun, a pastime that did not exist in 1960. Therefore, modern technology helps and hinders collegiate study.

Greater accessibility to university education has enabled people with less ability and interest to enter college campuses and this, in addition to an indulgent, liberal culture and new technology, has produced a new generation of misinformed youth and contributed to the declining quality of schooling. Presently, students are ill-prepared, expect high grades, and view education as a form of degree purchase rather than a quest for knowledge. One of the cases against taking action on grade inflation is that it can motivate students of average ability to invest in an academic degree, instead of going to a trade school, which emphasizes that higher education is a business and that we are in a consumerist era.

Leisure College, USA

In 1961, the average full-time student at a four-year college in the U. S. studied about 24 hours per week, while their modern counterpart studies only 14 hours a week. Also, the total amount of academic time per week fell from about 40 hours to 30 hours, and academic time

includes class and study time. So, students now study less than half as much as universities claim to require! This dramatic decline in study time occurred for students from all demographic subgroups, for students who worked and those who did not, within every major, and at four-year colleges of every type, degree structure, and level of selectivity. Most of the decline predates the innovations in technology that are most relevant to education, and thus, was not driven by such changes. The most plausible explanation for these findings is that standards have fallen at postsecondary institutions in the U. S.

Marks and Babcock (2010) claimed that the traditional effort standard, virtually unchanged for about a century, requires students to put in two or more hours of study time per week for every hour of class. Based on average course loads in national datasets, this effort standard requires full-time students to study 30 hours a week to pass their courses. Clearly this academic effort is not increasing, and the authors argued that the increased market pressures caused colleges to cater to students' desires for more leisure. Lastly, students did not appear to have reduced study time to work for pay and students appeared to be studying less in order to have more leisure time.

General Knowledge Norms: Updated and Expanded from the Nelson and Narens (1980) Norms

Dunlosky and Rawson compared the general knowledge of 671 college students in 2012 versus a cohort tested by Nelson and Narens in 1980. By using the same 300 questions as Nelson and Narens, Tauber, Dunlosky, Rawson, Rhodes, and Sitzman (2013) discovered that the current group of college students failed to grasp essential facts of geography, history, science, math, and the arts. For instance, they found that less than 5% of current students knew that Aldous Huxley wrote *Brave New World*; Marie Curie discovered radium; Euclid is the father of geometry;

Mozart wrote Don Giovanni; Sir Arthur Conan Doyle wrote the Sherlock Holmes tales; Monticello is the name of Thomas Jefferson's primary plantation and where our third President is buried; and that Alfred Nobel, the namesake of the Nobel Peace Prize, invented dynamite.

In 1980, the fact that Paris is the capital of France was ranked number six in terms of questions answered correctly. By 2012, this fact had dropped to number 23 among questions answered correctly. Interestingly, the identity of the Egyptian matriarch, Cleopatra, was ranked number 32 in 1980 for most known fact, and dropped to number 54 in 2012. Also by 2012, 30% of students thought that Baghdad was the capital of Afghanistan, 6% thought that Nairobi the capital of Kenya was the capital of Africa which is a continent, 12% thought that Mount Everest was in the Appalachian Mountains, and knowledge that Lieutenant Colonel George Custer lost the Battle of Little Bighorn fell from number 58 to 79. The fact is college students today appear to know much less general knowledge than they did 30 years ago.

Discussion

The sad truth is that universities have begun to exist for the sake of their own existence, rather than the education of their undergraduate students. Meanwhile, students are taking their studies less and less seriously and they realize that they need only go through the motions to graduate and get on the job market, which is their ultimate goal. It should not be surprising that millennials are spend their time on activities that interest them rather than feeling like their academic work is forced, or goes unnoticed.

Conclusions and Recommendations

Giving people an "A" instead of a "B," or a "B" instead of a "C" seems so harmless. No one is hurt, students are happier, and the professor's job is arguably a lot easier. So, why is there so much hype over grade inflation? For students, grade inflation means never really knowing where they stand and not having to work as hard as possible to achieve certain standards. This is a cultural problem that demands instant gratification; students want to have immediate positive feedback regardless of the reality of their work and the actual amount of time that they engage in academic work. Education is a lifelong process that cannot be evaluated in the moment, so the easy "A" that was not worked hard for does not establish the foundation for a lifetime of necessary growth and learning, and education steadily stands as the prime human capital investment because education improves the many capabilities of people. There is little satisfaction in receiving a grade that you have not worked hard to earn, and subsequently, having things come easy does not build the kind of ambition needed in a challenging and rapidly changing global economy.

For faculty, grade inflation means being able to push students to work as hard as they could and having an obligation to those students for approval in the unending cycle of rising grades. Individuals who work in education sometimes argue that if faculty are employees and students are customers who have paid for their education, and thus their grades, then there is an issue with customer satisfaction, especially due the large increases in tuition prices students want to get their moneys worth. There is no leverage for professors to push students in this model. In fact, when student evaluations of faculty members become part of the reappointment process, the power dynamic shifts in such a way that grade inflation is a natural outcome (Germaine & Scandura, 2005). In this scenario, faculty is unable to push students because their careers are at

stake if they do not make their customers happy, but all that is needed to counteract this is to hve GPAs in a required range for tenure. This is why grade information, such as professor evaluations, is important for student use when deciding where to enroll because they should strategically sort themselves into departments where their abilities will thrive.

For higher education, grade inflation is equated to devaluing the product offered. The objective of education is to learn, and paying a great deal in tuition every year means that you should be learning a lot for your money. I understand that scholarly work is hard for both the students and the faculty members, but if either party does not, or cannot, understand that academics are meant to be challenging, then the students will not receive the maximum value for their investment. Since grades provide information about students, some universities develop generous grading curves to use as a signal to infer high overall quality in the school (Bar, Kadiyali, & Zussman, 2009). As student grades rise and education becomes less rigorous, the effectiveness of higher education is lessened. Realistically, this means that the worth of a college diploma is decreased. Graduates are not as well-prepared for the rigors of the labor market, and businesses will see less value in hiring individuals with a college degree.

For society as a whole, grade inflation means that our college graduates are not as prepared for the labor market as they could be, either in regards to specific skills and knowledge, or in terms of their willingness to work hard to accomplish a task. In regard to everyday life, this lack of intellectualism strikes at the very core of what the U.S. aims to uphold; educated and engaged citizens who are thoughtful about issues pertaining to society and critical of the processes by which change happens. On a smaller scale, this contributes to the ever-increasing shortage of qualified workers ready to take on the most technologically advanced jobs available. Even if there was not a shortage of students pursuing degrees in science and technology, and if

graduates are unprepared for the positions they are expected to fill, then they will be unable to keep these jobs, even if they are specifically hired for those jobs.

Now, let us think about what higher education and society would be like if grades were based on hard academic work and academic rigor, and were true reflections of a person's accomplishments. Foremost, student satisfaction would rise simply because it is not as satisfying to attempt to do something that is not very challenging. Students would develop more self-esteem and a greater sense of accomplishment if they work harder to achieve something. Ultimately, this would lead to more productive, self-actualized, and well-adjusted adults. Also, faculty confidence and rigor would improve in addition to student confidence rising. Part of the reason for academic tenure is to relieve professors of outside pressures on their research and teaching. Making instructors responsible for student satisfaction is not only mutually incompatible to this idea, but also works against their ability to encourage hard academic work. Grade inflation and the accompanying expectations strip faculty of the authority and confidence to be the taskmasters that students need to kick start their pursuit of lifelong learning. Lastly, societal intellectualism and perseverance would rise; finally doing away with grade inflation would allow faculty members and their students to push and be pushed into developing lifelong habits of intellectual rigor that would make society better for everyone. Imagine the possibilities if everyone was used to thinking critically about issues that affect us all. There could be an end of political ineffectiveness and governmental policies and business practices that are not good for us, for following generations, or for the environment.

Grade inflation is a huge issue, and has been worsening for decades without any apparent solution in sight. Like many problems that seem unfixable, the best course of action is a bottom-up approach for change. In this case, students themselves must demand more academic rigor, not

an easy "A." Students can use websites like Rate My Professor to target faculty members that they should be taking classes with; those professors who receive reviews that say they are hard, rigorous, or mean. These reviews do not always indicate a bad teacher, but rather one who is pushing students out of their comfort zone. It is in these tough courses that the most learning will take place. Conversely, students should stay away from the easy instructors because they may not be pushing students to try hard. Students need to focus on the learning rather than the grades they are receiving to get the maximum possible benefit from their education.

In contrast to theories of grade inflation that consider student and institution incentives, Adelman (2008) claimed that increasing grades may be explained by improved student ability or teaching quality. In this capacity, increasing grades are not inherently problematic because they could motivate students of average ability to invest in an academic degree, instead of learning a skilled trade at a vocational school. Additionally, the U.S. system still allows the brightest students to excel by offering courses with honors options as well as awarding valedictorians. Brighouse (2008) emphasized that, to assume there has been no improvement in student quality over the past 30 years is to assume that there have been no efficiency gains in higher education over this period. Although grade inflation does not evenly distribute through departments, it is arguable due to the subjective nature of grades, that interdepartmental grading practices were not equal in the first place. After all of the research for this analysis and reading through my findings, it is hard to believe that increasing grades can be explained by improved student ability. Study time decreased from 24 hours a week in 1960s to 14 hours a week in the 2000s, showing that students are not putting in the work that they once were.

To conclude, faculty members and students are both responsible for fighting grade inflation, but faculty members should maintain their academic rigor and push students as hard as

possible because every college class should be a challenge for every student. There is no ‘teaching to the middle’ necessary in higher education like there is in high school. The highest expectations and standards should be set, and students’ grades should reflect the degree to which they meet those goals. Faculty, along with students and administration, need to make C’s the standard for basic proficiency and B’s and A’s reflections of increasing mastery, not just a satisfactory performance. If we can toughen student expectations for high grades and make them appreciate the real value of the grades they are earning, not as indicators of something finished, but of something just begun, we will start heading down the right track to curb the grade inflation epidemic that is plaguing higher education.

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About the Author



Tessie N. Bracken started attending Allegheny College in the fall of 2013. As an active member on campus, Tess has been able to do significant work with the college through her position as Allegheny Student Government President, among other positions. Every year, Tess actively engages with the greater campus community and is an insistent advocate for the student body's needs.

In February 2015, Tess switched her major from Computer Science to Economics. It was then that she was first introduced to topics in education economics, which contributed to her future career aspirations; higher education administration.

Tess has since received an Allegheny Cornerstone Award that was created to recognize the accomplishments of outstanding seniors who have contributed positively to the Allegheny community. Most importantly, these seniors will leave a legacy behind once they graduate.