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Applying grade inflation adjustment mechanism in an Ethiopian university: Differences in nominal and real grades

Lemecha Geleto Wariyo

College of Education, Addis Ababa University, Sidist Kilo, Ethiopia

Email: lemechageleto@yahoo.com

Roman Alemu Kelbago

College of Social Sciences and Humanities, Wachemo University, Hossaina, Ethiopia

Email: romanalemu11@gmail.com

Abstract-*Grade inflation is a recognized problem in universities around the world. The factors underlying grade inflation are also discussed by studies. The objective of this study was: firstly, to observe the degree of grade inflation by analyzing the difference between nominal grades and real grades of students across departments. Secondly, the study analyzes the relationship between aptitude test scores and college GPA. In order to achieve these objectives, the first semester grades of all Wachemo university first batch third-year students (total 435 students:* male *287 female 148) were collected from the registrar and the nominal and real grades were calculated. The Grieves method of real grade analysis formula was used to analyze the real grades. The findings of this study revealed that although there was no severity of grade inflation in the semester, 4 departments out of 12 departments registered inflated grades. The correlation between nominal and real grades of students is positive and strong indicating that real grades are grade-inflation adjusted nominal grades. There was a zero correlation between aptitude test scores and the college GPA in this study. The similarity of grading system, and the similarity and the harmonization of the courses make the Grieve's method of grade inflation adjustment mechanism to be applied in Ethiopian universities. In addition, mechanisms of adjusting grade inflation better have attention in Ethiopia in order to standardize grades from different universities to have fairer and valid comparison of graduates for employment.*

Key words: Nominal grade, real grade, aptitude test scores

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1. Introduction

Currently, grade inflation is recognized as a threatening problem for higher education quality and student learning outcomes assessment (Felton & Koper, 2005; Hong & Zimmer, 2016; Schwager, 2012; Witte, & Geys, & Solondz, 2014). While Geisinger (2012) argued that grade inflation reflects a decline in academic standards, he supported his statement by reporting that since in the previous fifteen years, student scholastic aptitude had fallen even as student grades had risen. Another study by Jewell, McPherson & Tieslau (2013) also noted that the Scholastic Aptitude Test (SAT) and American College Test (ACT) scores of freshman college entering students tended to decrease while the college Grade Point Average (GPA) tended to increase. Generally, the longitudinal studies on this area reported a negative relationship between SAT and ACT scores and college GPA through passage of times. On the contrary, Lawler (2010) stated that grades were improved, rather than inflating, because the students were better every year, as he reported "but the official Harvard argument for this increase in grades is the students are better every year. This is really true. Scores at Harvard are higher than they have ever been before.'' Naturally, if the higher college grades imply the higher student aptitudes, then, the non-inflatory or improved grades are observed. In other words, grade inflation is something artificial. Jephcote ,Medland & Lygo-Baker (2020) describe a natural increase in grades as 'grades improved' rather than inflated grades.

Some studies have also discussed the driving factors behind grade inflation. The studies attribute these factors to institutions, faculty status, instructors, and behaviors of the students. The institutions inflate grades as a result of their urge to maintain popularity among their stakeholders. The status of a faculty such as being a tenured, non-tenured, and adjunct faculty member contributed to differences in grade assignment. In some cases, the sex of a faculty member contributed to differences in grading students' performance. The instructors want to earn good teacher evaluations from students by giving high grades. Students nag instructors, have informal friendships with instructors to earn undeserved grades (Franz, 2009; Jewell, McPherson & Tieslau, 2013; Kezim, Pariseau & Quinn, 2005). A more recent BBC News by Coughlan (2020, January 17) reported that 80% of students receive first-class degrees in UK. The news labeled this as grade inflation. Consequently, said Coughlan, grade inflation harmed the reputation of the once privileged universities. As a cause for grade inflation, Coughlan stated a sharp increase in student population.

Even though the issue of grade inflation has been recognized as a serious problem by numerous studies around the world, the issue has got less emphasis in Ethiopian educational research. Despite the scarcity of studies on the issue, Daniel (2008), who conducted a study on the standardization of grade inflation in

Ethiopian higher institutions at Addis Ababa University, stated that many academics believe the expansion of higher institutions increased a tendency for grade inflation in Ethiopia. How higher education expansion contributed to grade inflation need more explanations, however. This problem may be the concern of private higher education. Private higher education institutions may inflate grades to attract the customers to generate their incomes, and to boost their popularity. The control and the management of both private and government higher education institution quality is the mandate of the Ministry of Education. Therefore, the root of the problem is not the expansion of higher education; rather it might be the problem of the quality management system.

In the case of the university in which this study is conducted, there had been observed rumors of grade inflation on some occasions and grade deflation on other occasions. To make it clear, for instance, in a year before the conduct of this study, as a result of the suspect that grades were deflated; the university checked and revised its grading system in the second semester. On the other hand, there was a gossip of grade inflation in some departments.

When grades are inflated, they overestimate the students' real achievement and they will become meaningless. If grades fail to serve what they opt to serve (i.e., measuring the student's real competence), they will miss their target. As a result, they may spoil the quality of graduates in particular and the quality of education in general (Cruskey, Griffin and Ehlen, 2010). Grades lose their credibility because the percentage of learners who receive higher grades rises without any equivalent increase in student performance (Ehlers & Schwager, 2012). This is called grade inflation. Grade inflation affects the credible role of educational credentials in screening employees for the labor market (Moreover, Krautmann, 1990; Chan, Hao, & Suen, 2007). Grade inflation harms the privilege of the institution, the dignity of faculty members, and student learning outcomes (Abbot, 2008; Boleslavsky & Cotton, 2012).

Grade inflation affects higher education outcomes assessment in different ways. Firstly, it makes employers fail to get an accurate understanding of the graduates' performance thereby allowing blurred information and misinterpretation about graduate competence. This problem also ended in reducing the reputability and trustworthiness of the higher education institutions. The quality of higher education is firmly dependent on the quality of the service it provides to the community is serves.

In the Ethiopian context, it seems ambiguous whether or not the graduates' grades reflect their accomplishments. As a result of the difference in the grading mechanism of different higher institutions in Ethiopia, grades the graduates from different higher institutions have earned and the skill and knowledge they acquired tend to mismatch. This happens because some institutions are easy whereas others are harsh in their grading mechanism. Observing this problem, Daniel (2007) stated that an objective comparison of

the quality of graduates from different higher institutions is not easy. His study had attempted to discern the CGPA differentials across sample higher education institutions in Ethiopia and opted to derive a new standardization technique for their comparison. This researcher attempted to derive the standardized grades which can serve as standardized criteria to fairly compare the quality of graduates from different Ethiopian higher education institutions.

In another world, there have been efforts by scholars and institutions to deal with grade inflation. For instance, in 1994, Dartmouth College included the median grade for all students in the class and the total enrollment on transcripts, along with a students' grade in a class. Indiana University introduced the Expanded Grade Context Record (EGCR). Popov and Bernhardt (2010) developed a model in which schools with a better distribution of abilities will inflate grades by more than schools with a less able student body (Felton and Koper, 2005). Johnson's brainchild, a teaching excellence framework, also attempted to take it into account a measure of grade inflation in its assessment of institutions in UK (Baker, 2018). Some studies attempted to adjust or control Student Evaluations of Teaching in their study so that instructors' grade inflation can be mitigated (Zangenehzadeh, 1988; McPherson, 2006; McPherson & Jewell, 2007; & McPherson et al., 2009). Following these arguments, Felton and Koper (2005), calculated real grades from nominal grades by using class grades to adjust grade inflation. In Ethiopian context, almost no mechanism has been derived to adjust/compensate grade inflation except that was attempted by Daniel (2007) at Addis Ababa University.

1.1. Objectives of the study and research questions

The objectives of this study are to 1) Observe the degree of grade inflation by analyzing the difference between nominal grades and real grades of students across departments; 2) Apply a mechanism for the adjustment of grade inflation. 3) Observe the relationship between aptitude test scores and the college GPA.

The research questions of this study are: 1) Is there a significant difference between nominal grades and real grades in the university? 2) What are the pattern of nominal grade and real grade distributions across departments in the University? 3) Is there a significant correlation between aptitude test score and college CGPA of students?

The findings of this study introduce the issue of adjusting grade inflation in Ethiopia so that the policymakers, researchers, and the ministry of education can conduct further studies and utilize it to improve the educational quality and the educational measurement.

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1.2. Theoretical framework

The study follows the positivist paradigm in which the idea that the mean quantitative college grades of the learners if used appropriately, can validly measure the learners' true academic performance and competence. Grieves' method is used for adjusting grades by calculating the Real GPA for each student. The real GPA is used side to side with the traditional, instructor assigned grade, which is called Nominal GPA (Felton and Koper, 2005). In this study, the Grieves method of calculating real grades of students was applied in calculating real GPAs for the participants. Hence, the real GPA was compared against the nominal GPA to analyze how grades were distributed across the departments. On the other hand, the game theory, in which the situation pushes the instructors and institutions to be affected by the various internal and external influences, such as education policy and funding agents that push them to award good grades; threatens their promotion and existence or else. On the other hand, the economic theory, in which the money power makes it easy for the well-offs buy good grades resulting in grade inflation. Similarly, the institutions do not like to disappoint their customers through their harsh professors who are not easy in grading students' works to maintain their popularity among the customers. The socially and economically privileged ones have got it easier for them to earn the best grades resulting in the impact of the social reproduction in the grading system (Franz, 2009; Kelley, 1972; McKenzie; 1975; Lichty et al.; 1978; Dickson; 1984; Yang, H. & Yip, C.S., 2003). Generally, these theories are the major ones that are leading grade inflation around the world.

1.3. Delimitation

The study was delimited to all first-batch departments in the university. The data was first-semester college Cumulative Grade Point Average (CGPA) of the year 2014/2015 and the entrance exam aptitude scores of the first batch third-year students of the University. The cumulative semester grades of each third-year students were taken from the registrar.

2. Review of the related literature

2.1. Causes of grade inflation

Literatures attribute grade inflation to different sources: 1) Grading practices of the instructors is one of the factors that can inflate grades**.** An overall grade, such as a degree classification or a GPA, depends on factors, such as the kind of work undertaken for assessment (e.g. coursework or examination), how work is graded, the weighting given to component grades, and what is included and what excluded from consideration (Yorke, 2008). How precisely the instructors adhere their assessment practices to the standards determine the validity of the test scores of their students; 2) The grading policies on student

course selection are one of the causes of the problem. For instance, Johnson (2003) evaluated a considerable amount of empirical evidence gathered from studies at Duke University and concluded that 'The influence of grading policies on student course selection is substantial.' Those students who want easy grades and simple grading practices select those courses with easy grading system; 3) Easing standards for entering higher education institutions can cause grade inflation; instructors award good grades to get rid of burdens that come from being busy supporting students who need remediation; 4) Avoidance of low grades can be the fourth factor according to some studies. For example, Hawe (2003) found that assessors reluctant to award 'fail' grades, because to do so had consequences for the assessor, such as creating additional burden, being subjected to the rancor of the failed students, being blamed for poor teaching, and being perceived as trouble-making; 5) Giving students a helping hand has been serving as a factor for inflated grades, and 6) the motive to stay elite or relativism is one of the causes for grade inflation in some institutions (Yorke, 2008). Johnson (2003) suggests that elite institutions might benchmark themselves against an assumed 'average university' and argue that, because of their elite status and enrolment profile, their students ought to obtain better grades.

2.2. Non-inflationary increases in grades

It is important to distinguish between grade inflation and grade improvement. There have been hints earlier in this paper that grades may increase for reasons that do not justify the label of inflation. Some increases in grade may be labeled inflationary or non-inflationary, depending on the value system that is being brought to bear. According to Yorke (2008), possible contributors to what some would see as a non-inflationary increase in grades include curriculum design, improved teaching, improved motivation and/or learning, changes in participation profile, and students behaving 'strategically'. Some studies found that the type of discipline contributes to grade inflation. These studies found that usually grades are inflated in social science disciplines than in natural science disciplines (Prather et al., 1979; Sabot and Wakeman-Linn, 1991; Cheong, 2000).

2.3. The sources of grade inflation in some countries

For the question, "could there be other factors affecting student performance that can explain what is happening?" reports from different countries have attempted to give their answers. For instance, Bachan (2015) from UK stated that the upwards trend in the proportion of firsts and 2:1s should not be blindly badged as grade inflation, which can be a rise in the grades awarded for the same level of performance. Nevertheless, Bachan did not deny the existence of grade inflation.

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Bachan also analyzed grades' data from 2005-06 to 2011-12, and stated that there was a case to answer in the way grades rose. He stated two main potential causes: 1) change of the methods of assessment to a competencies-based system, 2) The increased interest of institutions in doing well in domestic league tables.

Baker also reported that when the quality assessment system for a domestic university ranking is looked at in UK, the inclusion of the National Student Survey in addition to the proportion of degrees in universities makes quality assessment stronger. The inclusion of student voices is a positive move to make the assessment valid and thorough. The complex and the controversial speculations about the sources of grade inflation have been described in Baker's (2018) report in which he analyzed conflicting speculations on the issue. Some responded to him that students were diligent than they were previously when they explain the rise of grades in UK. Others gave him another explanation that teaching standard at universities had improved as a result of universities' greater emphasis on teaching in the era of £9,000 fees. In addition to the positive explanations, Baker also reported another controversial explanation about grades in UK from Bernard Rivers who analyzed the rise in grades awarded at Cambridge University:

> *"……. although it was 'theoretically conceivable' that students had worked harder or received better teaching in recent years, he was not convinced. 'What on earth could cause such a significant increase in talent or diligence?' he asked. 'No. This is grade inflation, without a doubt."*

Baker's (2018) goes to North America's grading scenario where he showed the difference in the degree awarding and grading: The honors in UK vs the Grade Point Averages and distinctions in USA. He also reported convergence of Bachan's (2015) findings on the source of grade inflation in UK and Stuart Rojstaczer's report on the source of grade inflation in USA at one point, that is, student-based course evaluations to evaluate instructor quality. He stated the difficulty for USA universities to disappoint students who pay for their education in marketized higher education in USA. Citing Rojstaczer's response, Baker raises another reason that students or customers would not be disappointed by deflating their grades; the education tax comes from their pocket.

Baker also flies to Canada and tries to elaborate on the situation. According to his respondent, Professor James Côté and Anton Allahar, grading has been affected in Canada's universities by funding being distributed between departments depending on the popularity of their courses; another name "enrollment contingent or bums-on-seats". To avoid the pressure of lower enrollment that results in lower funding, the departments had to relax their grading practices to make their courses more attractive, leading to an "arms race" in grade inflation. The mandate and the power to stop grade inflation in USA and Canada,

according to Côté's and Allahar's response to Baker, belong to policymakers and higher-order officials; it is beyond the professor at college.

Baker also visited Germany. He also contacted Professor Thomas Bauer to get information about grades in Germany. Baker observed that the performance-dependent funding in German universities, unlike the USA universities in which the students pay tuition fees. Regarding the question 'how this funding system exacerbated grade inflation?', even though Professor Bauer lacks any empirical response that liked the two variables, he underlined that experiences show him such funding encourages grade inflation. Professor Bauer also observed grade inflation tendencies after Germany started tuition fees like USA. Professor Bauer also raised his work experiences in both USA and Germany while he stated how Germany's funding system and the USA's student fee-paying encouraged grade inflation. He said that students become kings when they pay the fees for their education and they own the power to earn their grades, indicating that students' fee-paying is worse than performance-dependent funding in encouraging grade inflation.

Baker Müller-Benedict, another professor from Germany responded to Baker:

> *"Better grades are a win-win situation for all participants," he says. Students are more content with better grades, but academics also appreciate the lack of complaints and the conveyed impression that they taught the students well. Müller-Benedict says the solution to grade inflation is to disentangle teaching performance from grading behavior: "[Academics] should never be evaluated by the grades they give," he says. So although Germany has retreated from a more marketized model, the underlying cause of grade inflation appears to be similar: the monitoring of teaching."*

Like in England, students there pay a significant chunk of their degree costs through income-contingent loans. But while this may be set to change with the government's planned introduction of league tables likely to draw on the country's existing Student Engagement Survey, academics there are not currently judged to any serious extent on the basis of student feedback. And there is scant evidence of rising grades (Baker, 2018).

The evidence of grade inflation in Australian universities is not adequate. Baker gives reasons for the scarcity of information on grade inflation in Australia. Firstly, the grading system in Australian universities is different and this difference caused the absence of tangible pieces of evidence on grade distributions. Besides, Norton, an Australian Professor, responded to Baker that grade inflation is lower in Australian universities because they used norm-referenced assessment unlike universities in UK and USA. On the contrary, another respondent, Robertson said that:

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> "*The real strength of university assessment is that students are not in competition with each other, unlike 'public examinations' such as A-levels or GCSEs. There are assessment criteria which they either achieve or they do not, none of this 'top 10% gets the A' - the whole cohort can get a First if they are good enough, or if it's a really poor year, none of them will".*

Generally, there is no adequate empirical evidence on the differences in assessment criteria in promoting grade inflation.

2.4. Grades in Ethiopian universities

Historically, the grading system in Ethiopian Higher Education Institutions followed the curriculum changes. These curriculum changes were also influenced by different foreign influences. Let's start with the British influence in Ethiopian Education in the 1950s. At that time, exam types were mostly essay types. The scoring system was criterion-referenced. A small number of students sat for an exam, and there was no rumor of grade inflation. In the 1960s, during the US influence on Ethiopian Education, the objective assessment system dominated the examinations. The norm-referenced assessment system also dominated the assessment criteria: students compete with their peers. Starting from the time of American influence until the fall of the socialist regime, the American style of assessment system dominated the examinations. Generally, besides the changes in curriculum and assessment approaches, there was no evidence and rumor about grade inflation until 2004.

The gossip about grade inflation in Ethiopian history started after the emergence of private higher education institutions and the expansion of government higher education institutions in Ethiopia. Following the Millennium Development Goals, the country emphasized the production of skillful, knowledgeable, and attitudinally matured graduates in maximum numbers. Also, the education policy emphasized enrolling all nations and nationalities regardless of gender, minority, and ethnicity for democracy and equality. Following these policy changes, the university entry cutting scores started to be lowered to the minimum point in 2004. The universities started to pass a large number of freshmen to their second year. For instance, starting from one year before 2004, I was a university student. At the university I attended, a large number of freshmen was dismissed even in 2003; especially a very small number of freshmen girls left on the campus. Later on, as the university gradually accepted the policy of the government, it started to change its teaching-learning culture from teacher-centered to student-centered and these changes helped a large number of students to survive. The assessment system in many universities changed from norm-referenced to criterion-referenced assessment and continuous assessment guided student learning. The students were also given attention and there were tutorials, remedial exams, and make-ups for females in many universities to help them achieve best. On the other hand, even though

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there are no longitudinal, empirical research findings on the issue, the rumors about grade inflation increased.

Similar to countries over the world, the marketization of higher education in Ethiopia started by expanding private higher education institutions resulting in apparent grade inflation. To control the quality problems of these institutions, the government has established the Higher Education Relevance and Quality Assurance (HERQA) Agency.

3. Research methodology

The type of research used in this study is correlational and descriptive research type. Aptitude scores of students were correlated with their college GPA to observe the strength of correlation. On the other hand, the intra-departmental difference in real grade and nominal grade is carefully studied. All the university's first batch third-year students (the total 435 students: male=287 female=148) were purposively included in the study. The first semester grades of all these students were collected from the registrar and the nominal and real grades were calculated. The Grieves method of real grade analysis formula was used to calculate the real grades. The Pearson product-moment correlations were produced between nominal and real grades, between both nominal grades and real grades, and aptitude test scores of the students. One-way analysis of variance with Tukey's post hock analysis was used to compare the mean difference between nominal and real grades within each department. The data was coded and entered into SPSS version 20 software and analyzed. The nominal grade and real grade calculation formulas are as follows:

$$\text{Nominal Grade} = \sum(\text{course grade point} \times \text{credit hours}) \div \text{Total credit hours}$$

$$\text{Real GPA} = \left\{\sum\left[(\text{course grade point} \times \text{credit hours}) \div \text{Class Grade}\right] \times \text{total credit hours}\right\} \times 2$$

Aptitude test is one of the tests included in the Ethiopia Higher Education Entrance Examination (EHEEE). Ethiopian aptitude test is believed to be an equivalent of, but not the same to, the Scholastic Aptitude Test (SAT).

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Table 1

Nominal and Real GPAs of a Maths Student

course	Letter grades	Credit hours	Class grade	Nominal GPA	Real GPA
Course 1	C	4	2.50	2.00	1.60
Course 2	B-	3	2.71	2.67	1.97
Course 3	A-	3	3.00	3.67	2.45
Course 4	B	3	2.52	3.00	2.38
Course 5	B	3	2.71	3.00	2.21
Course 6	B+	1	3.37	3.33	1.98
Total credit hours Weighted-average GPAs		17	2.71	2.84	2.08

4. Results and findings

In this chapter, the data was analyzed, presented, and discussed. The findings and recommendations were forwarded depending on the results of the analysis. As the first research question is "Is there a significant difference between nominal grades and real grades in Wachemo University?", the pattern of grade distributions were shown as it is illustrated in chart 1 and table 2 to show the difference.

4.1. The pattern of mean nominal and real grade distributions across departments

The nominal grades are shown above while real grades are shown below in different colors in the chart 1. As is illustrated in chart 1, the first three departments registered more inflated grades (1.25, 1.11, and 1.10) mean difference between nominal and real grades respectively than other departments. Departments with the least mean difference (.71, 0.75, and 0.80) mean difference between nominal and real grades respectively registered less inflated grades than the rest.

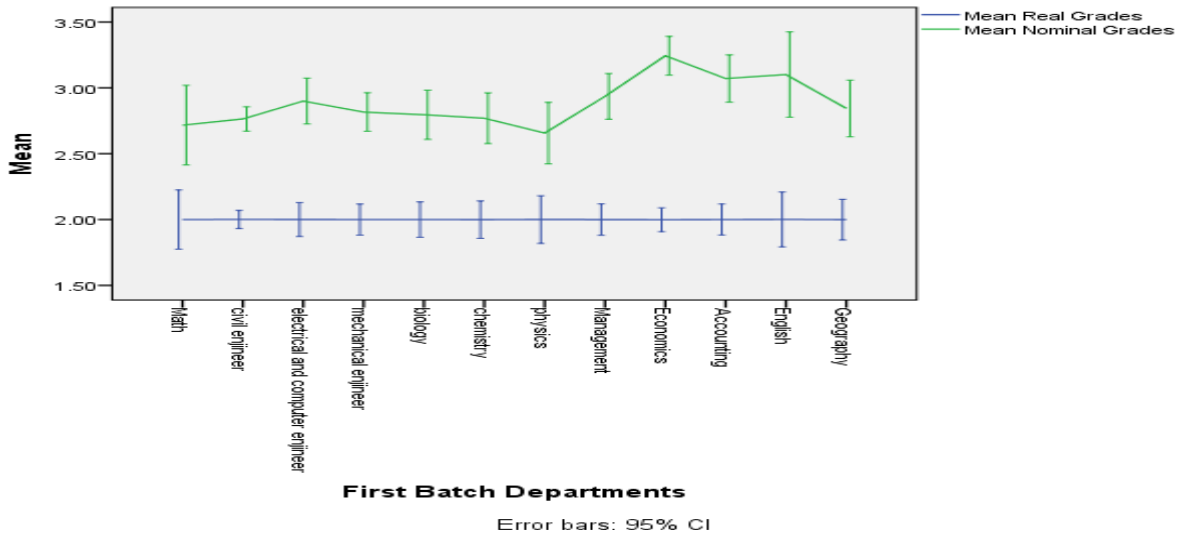

Chart 1. Mean Nominal and Real Grade Distributions across Departments

Having departments as a categorical independent variable and the difference between nominal and real grades as a dependent variable, the one-way analysis of variance was used to analyze the difference between nominal grade and real grade across departments. The analysis of variance revealed that the difference between nominal and real grades was significant across departments, $F(11, 5.54) = 36.16$, $p < .05$. To analyze which departments registered higher differences from others, a one-way analysis of variance with Tuckey's post hock analysis was conducted. Post hock analysis results are illustrated in table 2 below.

Table 2

Descriptive Statistics for Mean Nominal and Real Grade Differences across Departments

No.	Department	Mean difference between NG & RG	SD	Number of departments significantly registered less mean difference than this department
1	Economics	1.25* (N=35)	.24	10
2	English	1.11* (N=16)	.26	7
3	Accounting	1.10* (N=39)	.33	7
4	Mechanical Engineering	1.00*(N=28)	.71	6
5	Electrical & computer	1.00*(N=27)	.54	5

	Engineering			
6	Management	.99*(N=50)	.30	3
7	Geography	.84(N=26)	.32	0
8	Chemistry	.81(N=34)	.36	0
9	Biology	.80(N=57)	.27	0
10	Maths	.80(N=16)	.35	0
11	Civil Engineering	.75(N=87)	.41	0
12	Physics	.71(N=20)	.38	0

Note: *p < .05; N = 435

As it is illustrated in table 2, the first four departments registered more inflated grades than the rest as their ranked mean difference significantly higher than 6 to 10 departments.

5. Discussion

5.1. The relationship between nominal and real grades with aptitude test scores

Some studies confirm that there is a positive correlation between Scholastic aptitude test scores of students and their college GPA. For instance, Geissinger (2012) stated that since in the past fifteen years student scholastic aptitude has fallen even as student grades have risen. Geiser and Santelices (2007) also reported that a study at the University of California found that student scores on SAT tests were notably more powerful predictors of academic success. The combination of pre-college performance explained the largest proportion of variance in university GPA (Aboma, 2017). However, this study reveals that the correlation between aptitude test scores and both nominal Grades and real grades is not significant r (433) =.033, p <.01, and r (433) =.015, p<.01 respectively.

On other hand, this study revealed that there is a strong positive correlation r (433) = .957, p<.01 between nominal grades and real grades indicating that the two grades are related because real grades are calculated from nominal grades. In other words, real grades are the grade inflation-adjusted nominal grades.

5.2. Real and nominal grade differences and the applicability of the method

The nominal and real grade distributions and differences within and across the departments under study reveal the existence of grade inflation in some departments. This method applies to Ethiopian universities for some reason. Firstly, the grading system in Ethiopian universities is similar; 2) the harmonized curriculum of higher education institutions in Ethiopia makes it suitable to use Grieve's method. This is because the courses for a degree are similar. When courses are similar, it is suitable to take class grades to

analyze a real GPA. The major problem is that some courses can be given at different semesters and years for the same department and this makes it difficult to analyze to find class grade for a course.

As the literature review above reveals, grade inflation is found to be a worldwide phenomenon (Coughlan, 2020). Also, it is found to be an uncontrollable factor because the factors underlying it are various and powerful; for example, the students associated the quality of lecture with the amount of dollars they pay (Baker, 2018).

On the other hand, some studies recommended solutions for grade inflation. These are separating student evaluations of teaching quality and teacher promotion, or controlling for student-teacher evaluations in the research on teacher quality; 2) Deepening teacher quality, teaching quality, curriculum design quality, and academic rigor, and assessment and evaluations; 3) Reports to Baker also indicated that the power to shift the effect of grade inflation is in the hands of policymakers, higher-order officials and politicians (Baker; 2018; Ehlers & Schwager, 2012; Yorke; 2004). Among the strong factors that underlie grade inflation, Baker's (2018) report tells us that student fee-paying for their education is the most one. For the time being, this study could not find any study that has been conducted on relieving the influence of fee-paying on grade inflation. Studies that associate the output-dependent funding of higher education and marketization of higher educations with grade inflation recommended little solutions for the problem.

Except Daniel's (2007) study, who conducted an empirical research on grade inflation in Addis Ababa University, there is no study conducted on this issue in Ethiopia. Even though there is a shortage of studies in Ethiopia, after the expansion of private and governmental higher education institutions, some evidences such as HERQA's measures to control the behaviors of private colleges, instructors' complaints about the grading system in some governmental universities indicate the existence of grade inflation. For instance, a professor in an Ethiopian university asked me, "I heard that an Engineering graduate was graduated from that university with all grades A, without even a single B or B^{+}. How this happens?" Generally, longitudinal studies on the issue are needed to come up with meaningful reports on its causes and effects.

6. Conclusion and Recommendation

6.1. Conclusion

Depending on the findings of the study, the following conclusions can be forwarded: 1) Some departments (4/12 of the departments) registered a bit inflated grades. 2) When we observe in general, there was no severity of grade inflation at the University in that semester since most of the departments registered non-inflated grades. 3) Aptitude test scores and College GPA have zero correlation contrary to

the previous studies. It is also found that for the reason that the degree courses and their credit hours are similar in the university, the Grieve's method of grade inflation adjustment mechanism is applicable in the institution. Similarly, it is found that the method is also applicable even at national level. However, for the reason that some courses are given for students of the same departments at different semester and years at different universities, this method is not applicable at national level. If this problem is solved the method can be easily used nationally.

6.2. Recommendation

Given the findings of this study and the conclusions drawn, the following recommendations are provided: 1) Instructors should be able to identify the factors that contribute to grade inflation and should be equipped with the skills that help them assign fair grades. 2) At the institution level, there should be a mechanism of calculating the real grades so that the departments and instructors can calculate the real grades to understand the extent to which their nominal grades are far from the nominal grades they assign. 3) At the national level, there should be a mechanism of standardizing the grades of all graduates from all universities so that graduates who are graduated from easy universities will not wrongly outperform those graduates who are graduated from harsh universities. The Grieves method is recommended to be used because the grading system and the degree courses are similar in all Ethiopian universities; 4) the researchers recommend to the University registrar and instructors to use Grieve's method of calculating real GPA. 5) This study revealed that college GPA and aptitude test scores have zero correlations. Also, the strong measurement of the aptitudes for college entering students is important for fair and scientific selection and admission purposes and it should be given stronger attention.

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