

**Standardization Techniques for Grade Inflation Problems at Higher Educational
Institutions of Ethiopia: The Case of Addis Ababa**

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Abstract

Cumulative Grade Point Average (CGPA) is a measure, which is used to display the achievement of collage students in Ethiopia. It also serves as a key yardstick in career and scholarship assessment. In recent time there has been a rapid massification of higher educational institutions (HEIs). Many academics believe that the expansion has increased a tendency for grade inflation in the country. As an objective comparison of the quality of graduates from different HEIs is not easy, this study has attempted to discern the CGPA differentials across sample HEIs of Ethiopia and derive a new standardization technique for their comparison. The study identifies different grading patterns, not only across collage categories, but also along various batches of HEIs. To generate the standardization technique, both CGPA and ESLCE (Ethiopian School Leaving Certificate Examination) are employed to derive the Normalized Index. The index is used to adjust not only the inflated, but also the deflated CGPAs. The quality of the index could be further improved by incorporating additional variables and also by validating the method over a large set of HEIs.

1. Introduction

Inflation is a commonly used concept by the economists. Laidler and Parkin (1975), defines inflation as the process of continuously rising prices or equivalently of a continuously falling value of money. Through straightforward transposition, grade inflation can be identified where there is an increasing proportion of excellent grades scored by collage students without evidence of a concurrent increase in their actual performance. As monetary inflation is caused by increased supply of money, grade inflation, too, could be triggered through oversupply of higher grades.

The issue of grade inflation has been subject to sustained debate among scholars in various countries. Many scholars perceive it as endemic problem, which undermines the quality and credibility of higher education (Summerville et al., 1990; Shea, 1994; Mansfield, 2001; Winzer, 2002). However, a few other scholars (Basinger, 1997; Gose, 1997) dismiss the problems emanating from grade inflation.

It is generally agreed that grade inflation emerged in various countries in the late 60's and early 70's. According to Mansfield (2001), it was initially caused by the marking practices of by white professors of USA, imbibing the spirit of affirmative action. They stopped giving low or average grades to black students and, to justify or conceal it, stopped giving those grades to white students as well. Moreover, there were faculty sympathies with student protesters against the Vietnam War.

Grade inflation symptoms occurs when grades are boosted irrespective of academic efforts (Winzer, 2002). Some scholars (Mansfield, 2001) admit to have given A's and A

minus for almost 50% of the students. Such a high proportion of high grades seems unrealistic. This practice is blamed for compressing most grades at the top grade category, making it difficult to discriminate the best from the very good, the very good from the good, and the good from the mediocre. This upward drift of grades has paved the way for unwarranted number of students to receive honors (Summerville et al., 1990). Beaver (1997) contends that, due to grade inflation, grades have become meaningless.

Studies conducted in some developed nations have reported that the problem of grade inflation overlaps and follows an expansionary period in HEIs (Winzer, 2002). The same could hold true, or even be worse, in the least developed countries such as Ethiopia.

Some studies have reported a significant correlation between the evaluation of instructors by HEIs students and the magnitude of grade inflation. For example, Lichty et al. (1978) and Zangenehzadeh (1988) report that student evaluations of faculty are among the main factors responsible for grade inflation. In this regard, Staples (1998) lays blame on some professors for inflating grades to escape negative evaluations by students and therefore secure tenure and promotion. On the other hand, Lundrum (1999) suggests that most students do not discriminate well between the quality of the course, the instructor, and their own performance when making evaluations.

In North America, grade inflation appears to be endemic (Winzer, 2002), especially in the fields of humanities (Shea, 1994). At Duke University, humanity departments have been

accused of attracting more students to their classes through easy grading system than other fields (Johnson, 2003).

2. The Problem Statement

In a bid to meet the Millennium Development Goals, massification of HEIs have been implemented by most developing countries. The impetus has been the production of adequate number of graduates to achieve the various activities of the goals. Accordingly, most developing countries have been provided with huge financial and professional assistance from the developed nations. As massification seems to be the precursor of grade inflation in many countries, it is possible to anticipate an increase in grade inflation problems.

Higher education in Ethiopia is little over 50 years old. Until recently, the GDP spent on education was 2.8 % and the gross enrolment ratio (GER) was 1.5%. These figures are extremely low when compared to average figure of Sub-Saharan Africa, with 3.9% and 3%, respectively (Yizengaw, 2004). However, recently, HEIs have undergone extraordinary transformations. In this, the third populous country of Africa, there were no private HEI until 90s. It is only in the last decade that the number of HEIs has suddenly grown. This expansion is considered “the fastest in Sub-Saharan Africa” (Wondwossen, 2005). Total enrolment of students in public HEIs were only 30,000 (Ashcroft, 2005; Rayner and Tesfaye, 2005). Presently, higher education enrolment (both public and private) has reached 192,000. There are now at least 70 private HEIs, which account for

25% of the total enrolment. Such expansion has allowed a better geographical distribution of HEIs across the country. According to Ashcroft (2005), the massification has enabled HEIs to take affirmative actions for women, disabled people and those from disadvantaged regions. This affirmative action is enshrined in the Proclamation (No. 351/2003) of higher education in Ethiopia. This proclamation has paved the way to move from extreme centralization towards institutional autonomy (Aschcroft, 2004).

As HEIs are proliferating and expanding a wide variety of grading systems are being established. Such diversities have a far-reaching effect on the competition among graduates for employment opportunity, admission to higher educational institutions, and the like. The variation in grading system across HEIs is likely to be reflected in the CGPA attained by various groups of graduates, either among batches of the same HEI or from the same department but graduated from different institutes.

Currently, various instructors, institutes, and employers believe that the CGPA of students is not a trustworthy measure of their achievement. Nowadays, some employers and HEIs are becoming skeptical about the CGPA which is inscribed on the student's transcript. For instance, a prestigious and veteran public collage in Addis Ababa city has developed its own mode of applicant's valuation for the enrollment in its new degree program. In doing so, the college has given a heavier weight (close to 75%) to the grade scored by the ESLCE (*Ethiopian School Leaving Certificate Examination*) than the CGPA obtained from feeder institutions. The college adopted this strategy because it is a public institution and those who enrolled in its diploma program achieved higher ESLCE

results than students enrolled in private colleges. As a matter of fact, most students from the public college used to score very little CGPA when compared to graduates from the newly emerged HEIs.

At the time this college upgraded its academic programme to degree level, it was stormed by several thousands applicants of diploma holders (both graduates from the college itself and other private colleges) to secure the limited space available for enrolment on an advanced standing basis. When the college attempted to confer due weight to the CGPA, none of its own alumni were able to get admission while graduates from other HEIs were unbeatable in the competition. This difference in grade scores did not appear to be a reflection of the relative quality of the applicants, but rather the striking diversities in the CGPA acquired by graduates from different category of HEIs.

While there is an extensive literature on grade inflation, there have been relatively few techniques developed for resolving the problem. There are, of course, some alternative methods of determining the quality of students. These include double marking, the development of assessment criteria, peer evaluation, external examination, benchmarking, employer survey and graduate survey (Smith et al., 1999; Ashcroft, 2005). These methods, however, are either open to subjective judgments or stipulate periodic monitoring mechanisms, which require higher financial expenditure, time and professional expertise. More importantly, the interpretation of the outcome from such methods is difficult to interpret by the ultimate users and educational planners.

This study, therefore, attempts to fill the exiting methodological gap through identifying the patterns of grade inflation at HEIs of Ethiopia through the development of new standardization technique, which enables cross-college and cross-batch benchmarking, which is specifically applicable to the CGPA of graduates.

3. Research Methodology

For the purpose of identifying the patterns of grade levels across collage categories, records (CGPA) of sample HEIs graduates, covering a period of 3 years (2004, 2003, 2002), were systematically collected from the public HEIs [Addis Ababa Commercial Collage (AACC)] and private [St. Mary's Collage (SMC) & MicroLink Collage (MLC)]. The three business-oriented departments of these HEIs include Accounting (ACT), Marketing Management (MKT) and Secretarial Science and Office Management (SSOM). From each of the three departments, one sample section/class was randomly selected, through a lottery method, for the stated academic years and their CGPAs analysed. On average, each section consisted of 45 to 50 students, which makes a total dataset of 1080 CGPAs.

To assess the patterns of grades across the years, only AACC was considered, due to the availability of long track record of data. Such data is not available in the private colleges, as they are recent establishments. In this regard, the CGPA of graduates from the sample departments of AACC were assessed for the years 2003, 2002, 2001, 1997, 1995 and 1992, a period spanning 12 years.

To compute grade variations within the academic year of 2004-5, an assessment was made to compare different faculties of the Addis Ababa University (AAU) at the degree program. A random collection of grades of the semester II was undertaken from the AACC [5 departments, 183 students], Faculty of Business and Economics (FBE) [6 departments, 241 students] and Science Faculty (FS) [3 departments, 109 students], which make a total grade of 533 students from 14 different courses. To this end, a total count was undertaken of the number of grade A's, B's, C's, D's and F's awarded to students.

In addition, a structured questionnaire was prepared and administered to sample HEIs instructors. To this effect, instructors at AACC, SMC, MLC, Unity University (UUC), and Admass (AC) colleges were involved. Of the total of 70 questionnaires distributed to college instructors, only 46 of them were adequately filled and responded.

4. Grading System and its Inflation Symptom in HEIs

In HEIs, two prototypic forms of grading are employed: The “percentage grading” (criterion based) and “grading on a curve” (norm referenced). In the percentage grading, the instructor fixes the absolute standards to be achieved by students. This method is criticized for its susceptibility to the instructor's bias. Since instructors develop the test there is no system to ensure that the test is too difficult or too easy for the standard and level of the course, so that a disproportionate number of students may achieve very high or very low grades. The class-curve grading system is considered “less evil” (Hanna and

Cashin, 1988), the spread of marks awarded by instructors may be wide or narrow, but these marks will be distributed to fit a normal distribution curves. This system may foster unhealthy competition among students and also strong incentives to cheat. Gradually, this grading system has been phased out or modified in many countries, leading to the problem of grade inflation.

In Ethiopia, both methods of grading are adopted (Table 1). However, it is the norm referenced scaling which is widely employed by HEIs. Apart from the classical five point scale master grades of A, B, C, D, F, most of the HEIs have recently adopted to use the 13 point system, viz., A⁺ A A⁻, B⁺ B B⁻, C⁺ C C⁻, D⁺ D D⁻, F, which give for the option of a finer grading of students.

(Insert Table 1 about here)

Grade differential among HEIs of Ethiopia was noted by Eshetu (1998), in a study conducted in the Science Faculty of the AAU. In the university, there are two streams in the departments of physics, mathematics, biology and chemistry, viz., teaching and non-teaching streams. The placement was based on the level of GPA scored during the Freshman Program. While the non-teaching streams are filled by candidates having higher GPAs, the teaching streams were designed for students with lesser GPA. The study found out that, by the time of graduation, the two groups showed no significant differences in CGPA. This implies that students of the teaching stream had greatly benefited from inflated grade provided to them than the non-teaching stream or that their

educational experience is vastly superior to the students in the other steam. Intuitively, it seems most likely that grade inflation is the cause of the difference.

5. Patterns of Grade Inflation

5.1 Patterns across institutional types

Grades which were collected from different colleges of AAU have shown a diversified distribution pattern (Figure 1 and 2). A slight but systematic increase in grades can be discerned along SF → FBE → AACC faculties of AAU. In this pattern, the most veteran faculties (e.g., SF) have shown smaller increase in higher grades than the recently established faculties (e.g., AACC).

(Insert Figure 1 about here)

(Insert Figure 2 about here)

When comparing grade levels between the two private colleges, i.e. SMC and MLC, they have a very similar distribution pattern (Figure 3 and 4). However, the assessment of grade differential across separate courses showed slightly more variation and a smaller tendency to grade increase in the SSOM Department of MLC than the SMC. On the contrary, scores in the Accounting department were higher on average in the SMC than MLC. However, such aggregate data or institutional averages may obscure the subtle differences among institutions (Smith et al., 1999).

(Insert Figure 3 about here)

(Insert Figure 4 about here)

Analysis of grades in the AACC for the three departments (ACT, MKT, SSOM) clearly showed that there had been increasing trend of grade inflation in the last decade. In all departments, there was a growing trend of more CGPA assessments within the category of “great distinction” (CGPA of > 3.5). Likewise, the proportion of grades awarded in the lower CGPA category had shown a declining tendency in the corresponding period. The finding of Levine (1994) also conforms that the grade of C has dropped by two-thirds, while As had quadrupled from 1969 to 1993.

For the question whether younger instructors are more lenient in over grading, 58% of the college instructors report that grade inflation has nothing to do with the rising proportion of younger instructors in some HEIs. However, about 67% of the respondents give the opinion that the growing culture of academic transparency in colleges has allowed students to score better grades at the present time than before.

In order to cope with the problem of disparity in grade pattern, respondents suggest various solutions, including the following most common ones:

1. The need to set overall academic criteria through entrance examination which might comprise practical, analytical, reasoning, aptitude and performance criteria;
2. The need to employ extra-academic criteria like morality, ethics, and personality;
3. The need to employ an assessment by external body, such as accreditation of candidates by professional associations, or setting a regulatory organ to oversee

exams in different colleges or, in some instances, to take into account of instructors' recommendation on the student's performance.

4. Lastly, instead of using letter grades, it is better to use percentages.

The above suggestions indicate that the current grading system lacks credibility even by the HEI instructors themselves. However, the recommendations given are rather difficult to implement and are still open to subjective judgments. Even if they are found useful, they do not solve the problem of the former graduates who may be competing with the new ones for jobs and opportunities.

6. Towards the Development of Grade Standardization

Grades of ESLCE¹ are the most trusted indicator of student performance in Ethiopia. They are seen as a true reflection of the performance of students during 12 years of schooling. As it is a national examination, which is unvaryingly applied to the whole country, it is considered as the best indicator for pre-collage academic performance. Various studies in the past have demonstrated that college CGPA in the public HEI has strong a correlation with the ESLCE grades.

In principle, an ESLCE score of 2.00 is considered adequate for the enrollment in HEIs. However, due to the mismatch between the number of students having ESLCE grade higher than 2.00 and the available space in the few academic HEIs, it was only those who scored above 3.00 actually benefit from the enrolment opportunity in public HEIs. Since the last decade, those who scored below 3.00 have had the opportunity to enroll in the newly established private HEIs. This indicates there may be a dichotomy in the quality of students at the moment of enrolment among the two HEI categories, i.e., public and private.

Once students are enrolled, they pursue under similar academic syllabus. However, there are unavoidable differences, which might positively or negatively contribute to the CGPA scored by college students. The students in private colleges enjoy the benefit of choosing

¹ Until 2002/03, the elementary and secondary school system of Ethiopia was 6-2-4. Students were admitted to higher education after passing the ESLCE exam. Starting 2003/04, the system become 4-4-2-2, and students were admitted to higher institutions after two years of pre-university preparatory programs in secondary schools based on the University Entrance Examination (UEE) Correspondingly the Grading system is changed from letter form to marks in figures.

their field of specialization, and there is competition among them. In such academic setting, those who had scored relatively higher ESLCE are probable to score excellent grades of CGPA.

On the contrary, those who scored higher in ESLCE generally join the public HEIs. The preference for those HEIs is not only because they are free of charge, supported through direct government budgets, but also because they enjoy higher academic prestige. Once students are enrolled in those HEIs, they are further partitioned into several departments, based primarily on their ESLCE result rather than their personal preferences. Those who scored very high in the ESLCE join the most prestigious and “highly competitive” departments. In such departments, there would be high competition among high scoring students and by the time they graduate from the HEIs they will harvest CGPAs ranging from “excellent” to “poor”. Those who are placed in the “less-competitive” departments are competing among themselves. Within themselves there would be a range of grades ranging from “excellent” to “poor” as well. This scenario leads to the conclusion that the CGPA obtained by graduates is the interplay of personal caliber, competitiveness of the department, type of college and type of grading system.

The two cardinal GPAs, which are frequently used for various purposes are ESLCE and CGPA. Due to the forgoing evidence in the variation of CGPA reported in this paper, this study proposes the need to systematically integrate the less trusted CGPA with the most trusted grade of ESLCE.

Neither ESLCE nor CGPA could be sufficient to be a sole yardstick for determining the student performance. Therefore, this study proposes a Normalized Index (NI) method (equation 1). NI is a number that is generated by the algebraic combination of ESLCE and CGPA, which helps to gauge the level of inflation or deflation in the grading system.

$$NI = \frac{CGPA - ESLCE}{CGPA + ESLCE} \quad (\text{Equation 1})$$

Where

- NI ranges from -1 to +1,
- -1 refers to extremely deflated CGPA
- 0 refers to no change
- + 1 refers to extremely inflated CGPA

In this regard, three alternative scenario of ESLCE-to-CGPA relationship could be distinguished (Figure 5). They are either “of no difference”, “inflation” (waxing of grades), or “deflation” (waning of grades). Corollary to the three scenarios, the CGPA of a student would be adjusted with the calculated NI value as shown below:

1. Case I: “Steady-State” Scenario:

In this case, there is no change between scores of students at the ESLCE (before joining HEIs) and the CGPA (by the time the student graduate from HEIs). The difference would be 0, and there would not be any adjustment to the calculation of the Adjusted CGPA (i.e. $CGPA = ACGPA$).

2. Case II: “Waxing” Scenario:

In this case, the NI would have a positive numbered value, which implies that the student has unfairly gained higher grades during the course of collage life, which is contrary to his/her prior achievement in the pre-collage study. This phenomena, stipulates the adjustment of CGPA through reductive mechanisms.

$$\text{Hence, } \text{ACGPA} = \text{CGPA} - \text{NI.} \quad (\text{Equation 2})$$

3. Case III. “Waning” Scenario:

In this case, NI would have a negative numbered value, which implies that the student, for various reasons, has scored lesser grades when compared to the higher grade scored in the pre collage career. Hence, there would be incremental adjustment to his/her CGPA, which would be computed as:

$$\text{ACGPA} = \text{CGPA} + \text{NI} \quad (\text{Equation 3})$$

(Insert Figure 5 about here)

Therefore, the general formula of Adjusted CGPA would be:

$$\text{ACGPA} = \text{CGPA} \pm \text{NI} \quad (\text{Equation 4})$$

To compute Equation 4, the NI values could be easily obtained from the lookup table (Table 2), which is prepared for easy reference. While NIs with minus (–) sign are indicators of grade deflation, the plus (+) sign signifies grade inflation.

(Insert Table 2 about here)

Therefore, implementation of the new ACGPA could have several advantages. Due credit could be given to the efforts (performance) and the academic performances during the pre-college study. As it is user-friendly due to easy computation the interpretation could be simple to a layman. Moreover, such a measure allows comparison of various candidates from across various departments, colleges, and batches. Finally, the measure enables the HEIs to benchmark and evaluate and monitor their own grading practices.

7. Conclusions and Recommendations

There is a clear government and public concern for the "quality" of HEIs in Ethiopia. Quality is a complex matter where its objective assessment is a requisite for comparative assessment. CGPA is one of the vital parameters, which is strongly interrelated with the quality of HEIs and its graduates. However, it is exhibiting a noticeable lack of consistency both across time and collage types. This is because; the CGPA obtained by any college graduate is a complex mixture of the personal brilliance and endeavor of the student, the competitiveness of the department, the type of college, the type of grading system the student is exposed to, etc. As affirmative actions are widely advocated to girls and other students from the less favored parts of Ethiopia, there may be higher propensity to grade inflation in the country. The problem may be especially severe in the newly established HEIs where affirmative actions are overly exercised.

In this study two important findings are indicted. Firstly, the CGPA of HEI graduates seem to vary systematically both across college types and across batches (time), which

implies that CGPA is inconsistent, indicating an intrinsic grade inflation problem in Ethiopia. Secondly, a normalized index (NI) is developed, which considers ESLCE and CGPA. The obtained general formula is $ACGPA = CGPA \pm NI$, where the NI can be obtained from the primed look-up table.

The newly developed ACGPA could serve as a medium for cross-department competition within public colleges and evaluation of candidates from different colleges. Figure 6 outlines the key procedures proposed for adjusting the CGPA.

(Insert Figure 6 about here)

This study recommends that patterns of CGPA differential should be assessed by considering additional sample HEIs of country. It would be a noble exercise to extrapolate this methodology to encompass HEIs of sub-Saharan countries, who are currently engaged in the rapid expansion of HEIs. In addition, apart from ESLCE and CGPA, the ACGPA might be adapted in the light of experience to include other parameters, which are not considered in this paper.

References

- Agnew, E. (1995) Rigorous grading does not raise standards: It only lower grades, *Assessing Writing*, 2(1): 91-103.
- Ashcroft, K. (2004) The massification of higher education: a comparison of the UK experience and the emerging Ethiopian response, *Journal of Higher Education in Ethiopia*, 1 (1): 21-40.
- Ashcroft, K. (2005) Emerging models of quality, reliance and standard in Ethiopia's higher education institutions. In Proceedings of the Third National Conference on Private Higher Education Institutions (PHEIs) in Ethiopia, St. Mary's Collage, August 20, 2005. Addis Ababa, Ethiopia, pp. 37-59.
- Basinger, D. (1997) Fighting grade inflation: A misguided effort, *College Teaching*, 45: 88-91.
- Beaver, W. (1997) Declining college standards: It's not the courses, it's the grades, *College Board Review*, 181: 2-7.
- Eshetu, W. (1998) A study on the performance of teacher and non-teacher streams graduates with reference to natural science I: A test about the location, *The Ethiopian Journal of Education*, 18: 1-18.
- Gose, B. (1997) Duke rejects controversial plan to revise calculation of grade point averages, *Chronicle of Higher Education*, p. A53.
- Johnson, V. (2003) *Grade inflation: A crisis in college education* (New York: Springer).
- Kolevzon, M. (1981) Grade inflation in higher education: A comparative study, *Research in Higher Education*, 15: 195-212.

- Levine, A. (1994). To deflate grade inflation, simplify the system. *Chronicle of Higher Education*, p. B3 (January).
- Lichty, R., Vose, D. & J. Peterson. (1978) The economic effects of grade inflation on instructor evaluation: an alternative interpretation, *Journal of Economic Education*, 10: 3-11.
- Lundrum, R. (1999) Student expectations of grade inflation, *Journal of Research and Development in Education*, 32: 124-128.
- Mansfield, H. (2001) Grade inflation: It's time to face the facts. *Chronicle of Higher Education*, p. B24.
- Rayner, P. & Tesfaye Teshome (2005) Quality: A Many-Headed Hydra? Quality Perception in the Eyes of Different Stakeholders, In Proceedings of the Third National Conference on Private Higher Education Institutions in Ethiopia. August 20, 2005. St. Mary's Collage, Addis Ababa, Ethiopia, pp 15-36.
- Shea, C. (1994) The subtleties of grade inflation, *Chronicle of Higher Education*, p. A5.
- Smith, H., Armstrong, M. & S. Brown (1999) *Benchmarking and Threshold Standards in Higher Education*. Staff and Educational Development Series.
- Staples, B. (1998) "Why Colleges Shower Their Students With A's." *New York Times* (Mar 8, 1998), Sec: 4 p. 16.
- Summerville, R., Ridley, D. & T. Maris (1990) Grade inflation: the case of urban colleges and universities, *College Teaching*, 38: 33-38.
- Todd, W. (1998) Available online at: http://www.bostonphoenix.com/archive/features/98/04/23/GRADE_INFLATION.html (accessed April 2006).

Winzer, M. (2002) Grade Inflation: An appraisal of the research. Available online at:
<http://people.uleth.ca/~runte/inflation/short.htm> (accessed August 2005).

Wondwossen, T. (2005) Welcome address, In Proceedings of the Third National
Conference on Private Higher Education Institutions in Ethiopia. August 20, 2005.
St. Mary's Collage, Addis Ababa, Ethiopia.

Zangenehzadeh, H. (1988) Grade inflation: A way out, *Journal of Economic Education*,
19, 217-226.

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Table 1. Scales Employed in Public and Private HEIs of Ethiopia

Letter Grade	Relative Scale <i>(% Of students)</i>	Absolute Scale <i>(Marks in %)</i>
A	0-15	≥ 85
B	10 – 20	70 – 74
C	30 – 65	50 – 69
D	0 – 10	40 – 49
F	0 – 10	≤ 40

Table 2. Calculated Look-Up Table for Normalized Index of CGPA

		CGPA										
		2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00
ESLCE	2.00	0.00	0.05	0.09	0.13	0.17	0.20	0.23	0.26	0.29	0.31	0.33
	2.20	-0.05	0.00	0.04	0.08	0.12	0.15	0.19	0.21	0.24	0.27	0.29
	2.40	-0.09	-0.04	0.00	0.04	0.08	0.11	0.14	0.17	0.20	0.23	0.25
	2.60	-0.13	-0.08	-0.04	0.00	0.04	0.07	0.10	0.13	0.16	0.19	0.21
	2.80	-0.17	-0.12	-0.08	-0.04	0.00	0.03	0.07	0.10	0.13	0.15	0.18
	3.00	-0.20	-0.15	-0.11	-0.07	-0.03	0.00	0.03	0.06	0.09	0.12	0.14
	3.20	-0.23	-0.19	-0.14	-0.10	-0.07	-0.03	0.00	0.03	0.06	0.09	0.11
	3.40	-0.26	-0.21	-0.17	-0.13	-0.10	-0.06	-0.03	0.00	0.03	0.06	0.08
	3.60	-0.29	-0.24	-0.20	-0.16	-0.13	-0.09	-0.06	-0.03	0.00	0.03	0.05
	3.80	-0.31	-0.27	-0.23	-0.19	-0.15	-0.12	-0.09	-0.06	-0.03	0.00	0.03
	4.00	-0.33	-0.29	-0.25	-0.21	-0.18	-0.14	-0.11	-0.08	-0.05	-0.03	0.00

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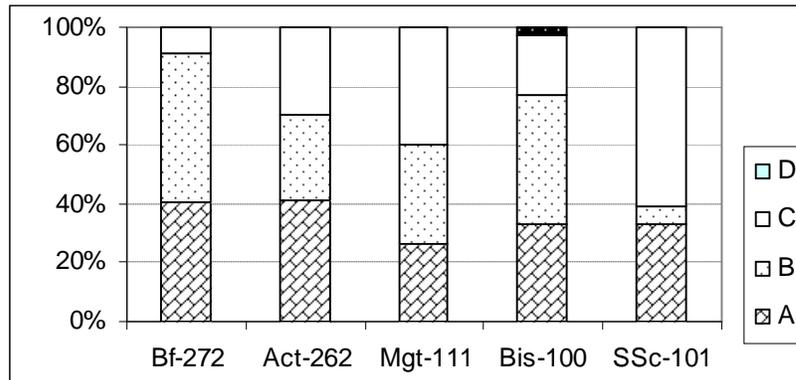


Figure 1. Patterns of Sample Grades within AACC (II Semester, 2004)

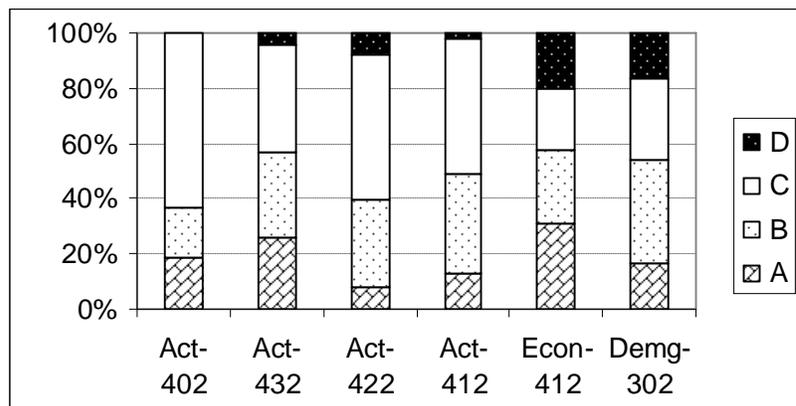


Figure 2. Patterns of Sample Grades within FBE (II Semester, 2004)

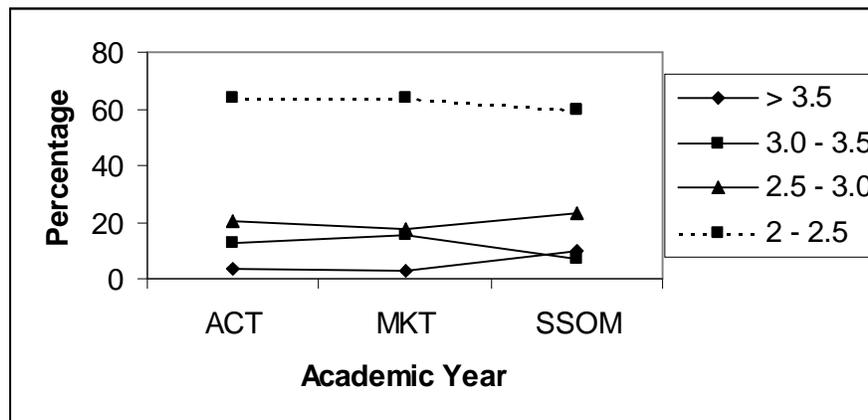


Figure 3. Trends of Average CGPA in MLC (2001-2003)

Figure 4. Trends of Average CGPA in SMC (2001-2003).

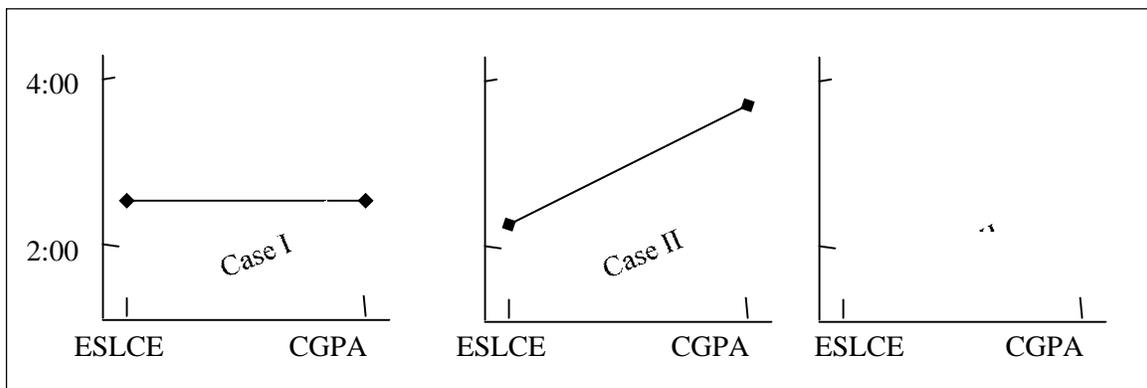


Figure 5. Scenario of CGPA-ESLCE Pattern.

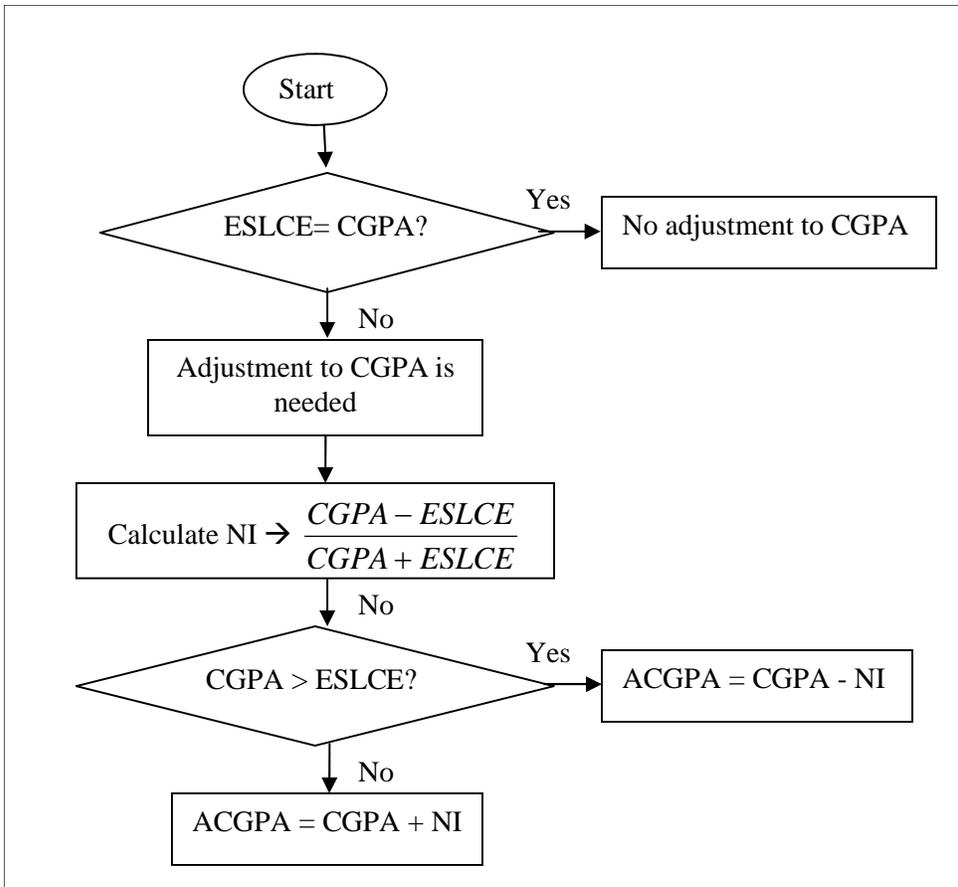


Figure 6. Decision Rule for the Computation of Adjusted CGPA