

**Report to Dean Douglas Gordon**  
**Concerning "Grade Inflation" Trends at CNU**  
**Compared to other U.S. Institutions of Higher Learning**

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In my annual evaluation package two years ago, I opined that I did not believe that CNU has experienced any significant "grade inflation" in the recent past. Although I lamented that the "frequent and persistent" evaluation of instructors with instruments such as the locally devised IES surveys and more recently the IDEA procedures, fatally flawed as they might be, could contribute to such grade inflation, I conjectured that such was not, in fact, the case at CNU in general, but this conclusion was tempered with the assertion that for some departments and some instructors grade inflation may well be present and perhaps problematical.

After reading my comments, Dr. Gordon, challenged me to study the grading situation at CNU since there was a perception within certain University circles that CNU was undergoing a loss of "rigor", which was interpreted as grade inflation. Since I had vigorously presented my opinions, I felt it necessary to take up the Dean's challenge.

**The Problem**

A natural beginning for such an effort was to attempt to define "grade inflation". The context for such consideration is provided by the assertion that there is a significant trend, nation-wide or locally, for increased grades in post-secondary education. The root causes of this trend may appear to be obvious, but careful consideration indicates that they are much more problematical. For instance, it is commonly accepted that concerns on the part of both students and faculty about placing students in graduate school or professional programs creates a motivation to increase the grade earned in courses, especially upper division major courses, thus increasing the student's grade point average (GPA) - a major factor in acceptance into post-baccalaureate programs. In fact, other information such as scores on recognized national qualifying tests such as the GRE, LSAT, MCAT etc., and letters of recommendation now appear to play a more central role in such admission decisions than does the undergraduate GPA.

There also seems to be a lot of "lore" in academe concerning grading. In the middle of the twentieth century there was the popular concept of the "gentleman's C" - the expectation that a student who made only an average effort in a course would receive an average grade, and in addition that C grades were good enough for entry into advanced study. Then there is the "Lake Wobegon Effect" (with apologies to humorist Garrison Keillor who asserts that all of the children in his mythical Minnesota home

town are "above average"). Certainly Keillor makes this comment in jest, but a quick consultation to most college catalogs, and certainly to the CNU Catalog, will provide the following interesting fact. Students must have a cumulative GPA of 2.0 or greater to graduate. The average grade on the grading scale is C. On the traditional 4 point grading scale the average (mean) should be, assuming that grades are distributed normally (Gaussian or bell-curve), 2.0. The logical inconsistency of these assertions is immediately striking. If C ( or 2.0 GPA) is the average grade, then we could expect that approximately 15% of all undergraduates should not be able to graduate since there cumulative GPAs would be below 2.0 (again, based on expectancies of the normal distribution). Without recourse to examination of comprehensive data, anyone within academe realizes that this is simply not so.

The Lake Wobegon Effect has an easy answer. There is no law, or even expectation that grades are truly distributed as the standard normal distribution. There may have been a time in American academe that grades were marched out in lock step with formula of 68% of grades being "C", 14% being either "B" or "D" and a mere 2.5% being either "A" or "F". But common practice today does not use "the curve" as a basis for grading. In practice, most professors I know use some absolute grading scale based on percentage of the possible points that can be earned in the course. For years there was an "official" (but not binding) grade scale published in the CNC/CNU Catalog, based on a 7% range for each letter grade with a failing score falling below 70%. Today, most of my colleagues use a 10% range for each letter grade, with 60% being the D to F demarcation. And of course, a few years ago we added the + and - system officially, changing the grading scale from five points to twelve. More on this later. Clearly, these types of grading criteria do not assume that the true distribution of student grades is Gaussian.

Regardless of the theoretical distribution of student grades, we must not wander from the essential nature of the procedure of grading - the assignment of numerical scores representing our objective or subjective evaluation of the quality of work for each student. **There will be a mean, and there will be a dispersion around that mean.** So the question remains, what is an appropriate mean?

One solution is to believe that the average grade is **not** C (or 2.0) but some higher figure. This is certainly substantiated by the data ( Mansfield, 2001; Rojstaczer, 2003). Hence it would be useful to determine the **actual** average GPA at an institution, and then working backward arrive at some **optimal** value for that average. The first step is then to use an empirical approach.

**Hence, a working definition of grade inflation is straight-forward. Grade inflation is the trend of the professorate assigning higher grades in university and college classes, presumably for the quality of student work that once received lower grades.**

#### Current CNU Data

With these preliminary considerations in mind, I obtained CNU grade data from 1999 through 2003 (eight semesters) and computed the cumulative "GPAs" by department. These data were circulated last year and appear in Figure 1. I chose this method of analysis because the Provost's Office began to distribute data in this form to

each faculty member, computed on a course by course basis, as well as because most of the literature on this topic uses this method to convey information. Hence the GPA concept becomes an easy way to represent the average grade given in any course or



Figure 1. Average grades awarded (expressed as GPAs) by academic department for eight semesters, 1999-2003.

by any instructor or department, or for that matter any academic unit, even the overall University.

Examination of Figure 1 indicates that the university-wide mean grade, expressed as a GPA, was 2.73. By computing the standard deviation around that mean, the 95% confidence interval was established. Three departments, Social Work, Education and Nursing, had mean GPAs above the confidence interval range indicating that those department's grades statistically exceed the university mean ( $p < .05$ ). No department's GPA exceeded the range of the confidence interval in the lower direction, although the data clearly indicate that the Departments of Mathematics and Accounting award the lowest average grades at the University.

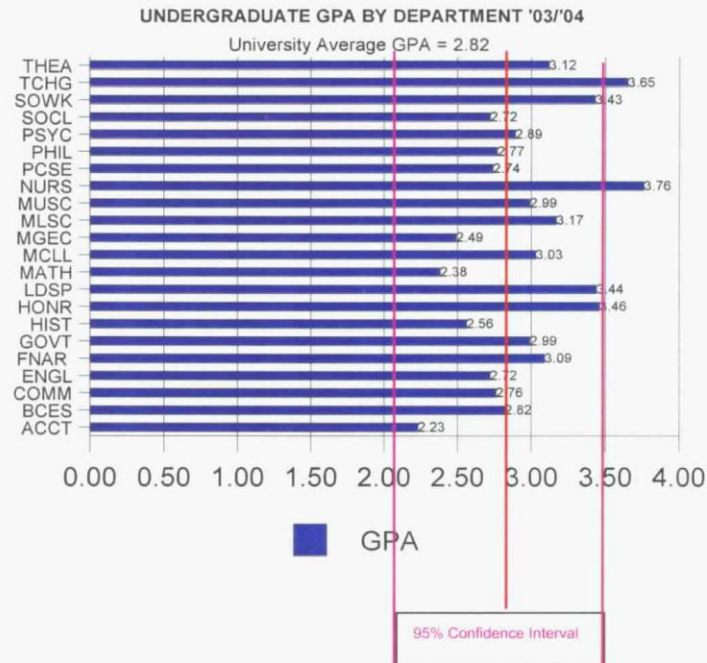


Figure 2. Average grades awarded (expressed as GPAs) by academic departments for the 2002/2003 academic year

The university average GPA of 2.73 provides an interesting benchmark.

Recently the grade distribution data for the 2003/2004 academic year became available. The results of a similar analysis of the data presented in Figure 1, appears in Figure 2. Unfortunately no data previous to 1999 is readily available at CNU. The average University GPA in Figure 2 is 2.82, slightly above the previous mean, but by no means statistically different. Hence I conclude that, as well as I can tell with available data, that the CNU GPA is **stable**, at least for now.

#### Data from Other Sources

Now we can turn to an analysis of data collected from sources other than CNU. cursory examination of the extent literature indicates that there is a lively controversy not only concerning the existence of the grade inflation phenomenon (Hanson, 1998; Kohn, 2002), but also regarding the significance of grade inflation if it does indeed exist (Ellenberg, 2002).



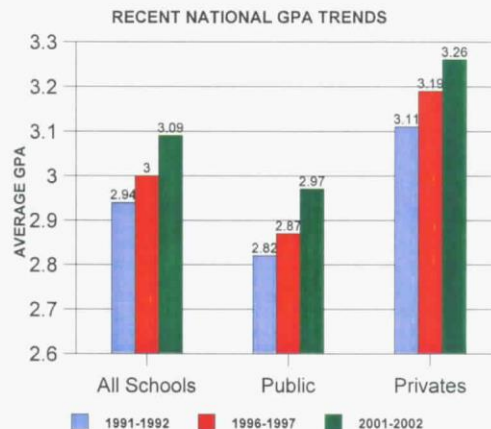


Figure 3. Recent GPA trends in 20 American Colleges and Universities selected by availability of data. After S. Rojstaczer, [www.gradeinflation.com](http://www.gradeinflation.com), 2003.

Data presented on the website [www.gradeinflation.com](http://www.gradeinflation.com) by Stuart Rojstaczer (2003) provides graphic evidence of a national trend toward grade inflation. In Figures 3 and 4, taken from Rojstaczer's (2003) website it is seen that this grade inflation is differential between private and public schools. Relative to CNU, please note that the "all school" average GPA of these twenty schools is over 3.0 as compared to CNU's 2.82 (from Figure 3). Figure 4 presents the inflation data in the same manner that one might chart a consumer price index, hence it indicates that the national average GPAs have increased by a factor of .6 in the last 25 years (Figure 4). To place this in perspective, the same period the consumer price index has increased by a factor of 5.4

Figure 5, again taken from Rojstaczer (2003) shows the 35 year trend in grade inflation, again as a change index, this time adding the least squares regression line fitted to the data which indicates an approximate .15 increase in GPA per decade. These data seem to firmly establish that there is indeed a grade inflation trend in American Universities and Colleges. While there is a differential rate between private and public schools, the reasons for that differential is not factually clear, but several authors (Rojstaczer, 2003; Tingir, 2004) speculate that grade expectations are higher in private schools that predominantly serve high ability students who expect to gain admission to graduate and professional programs partly on the basis of the prestige of their undergraduate institution.



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Whether this is a result of simply higher ability students being admitted to these institutions, lowered academic standards, pressure on faculty to give higher grades as a reflection of the cost and status of the institution, or some combination of these factors is not clear. **What is clear is that grade inflation is alive and well in America.**

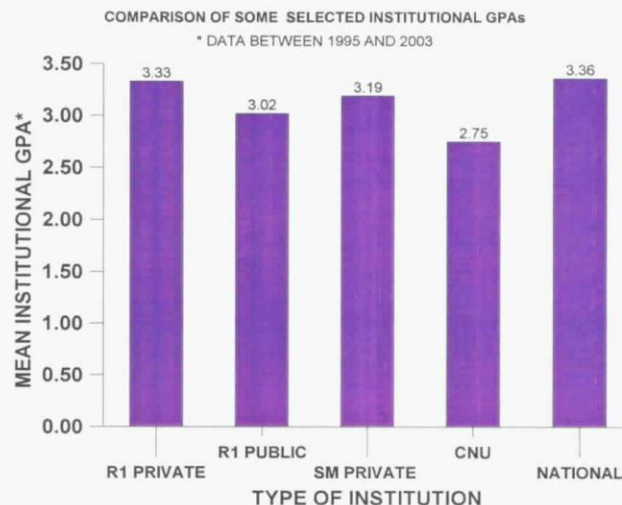


Figure 6. Average Institutional GPAs grouped by type of institution compared to the CNU 1999-2003 average GPA for 24 institutions in the first three categories. The national data are from S. Rojstaczer, [www.gradeinflation.com](http://www.gradeinflation.com), 2003.

### CNU Compared to Other Universities and Colleges

Using a list of University and College websites provided by Rojstaczer (2003), I selected schools from several categories to compare recent GPA data to the current CNU data. These data are presented graphically in Figure 6.

Clearly the data presented in Figure 6 can be used to argue that the average GPA at CNU is lower than any of the comparison groups. The nature of the available data make it difficult or impossible to establish a meaningful confidence interval around these means, however the weighted average within category standard deviation for the R1 private, R1 public and small private institutions is .18, hence a 95% confidence interval can be estimated at  $\pm .35$ . Using this estimate, we can assert that the **CNU average GPA is statistically lower than all but the R1 public institutions in Figure 6.**

### The Issues Surrounding Grade Inflation

I have made several comments in the previous sections of this report regarding possible motivations for grade inflation. As I researched the topic, I found a large number of articles, ranging from *The Chronicle of Higher Education* to less legitimate websites. There is debate both over the origins of grade inflation and its consequences. There are indeed many interesting and complex arguments presented. The following is a very short and essentially undocumented review of some of the issues.

Several authors address the issue of the expectancies of various participants in the academic process (Moore, 2000; Edwards 2002). Today's college students have been raised in an environment of false or at least over-emphasized awards. This atmosphere is unfortunately the result of our concerns about their self-image and protection from the psychological impacts of failure. Grades have acquired the traits of these accolades, and have thus become of paramount importance, regardless of any consideration of the quality of work submitted, or even learning. All of us have lamented that today's students view high grades as their right rather than something to be attained through hard work. This is the "extra credit" generation "I paid my tuition for this course, now I want my A".

Faculty find themselves under pressures that result from this consumer-based approach to higher education. Students have ample opportunity to evaluate their courses and instructors publically and privately. Beginning faculty, seeking the "golden way" to success and of course tenure quickly figure out that unhappy students can derail their progress. While some student evaluation is clearly an important element in the evaluation of college faculty, overemphasis on such data (such as evaluating every course in every term as is currently done for probationary faculty at CNU) is overkill, allowing some peer committee or administrator to gasp over every hiccup or mis-step on the golden way. Higher grades lead to happier students and happy students give good evaluations. Even the most professionally oriented Assistant Professor cannot afford to maintain grading standards that give them the reputation of being tough (unfair, mean, uncaring etc.).

Finally there are the administrators. As colleges and universities have fully engaged in the competition for "better" students, it has become necessary for administrators to concern themselves with market issues. Presently recruiting occupies a cadre of recruiters and an almost constant stream of campus visits, open houses, and other events. Part of convincing students and their families that this institution is for them, is to present the University as a place where "junior" or "sissy" can **succeed and prosper**. Parents want "good academics", but when their son or daughter fails, it is the responsibility of the faculty or institution, not the student. Administrators have a stake in creating the environment for student success and a too rigorous faculty member can be a threat to the success of the university.

The above themes are not really encountered at CNU (but could well be true for other institutions). While CNU is in the thick of the "marketing" trend as it re-invents itself, pressure from its administration is **pro rigor**. With a well developed (some would contend over-developed) peer evaluation system, good faculty members are protected from the revenge aspects of the course evaluations because their peers try to determine the overall strengths and weaknesses of those being evaluated. The atmosphere within



most departments of the University is upbeat (there are exceptions), and even many (but certainly not all) of the students still value their education and the learning process.

In short, I cannot wholly agree with the cynical view that grade inflation is the result of these complex and changing societal demands placed on the faculty and the institutions. We must look further for other contributing factors, and in the context of CNU, we need to identify what behaviors have kept the CNU GPA well below the national trends.

As I was working with these data, I wondered if class size might be correlated with GPA on a departmental basis. I computed the average class size for each department and then ran a Pearson Product Moment Correlation on those data. **The correlation between class average class size and departmental GPA was .634, which accounts for a little more than 40% of the variance, but is significant at the .01 level.** Hence, there is a relationship between class size and the grades assigned, but this relationship needs further study, specifically the data need to be analyzed by class, not department. Unfortunately the database is not easily manipulated to provide such data.

#### **Summary and a Final Caution**

The major conclusion of this short paper is simply that Christopher Newport University, at the institutional level, does not appear to have a serious grade inflation problem compared to several categories of other institutions of higher learning. However, as CNU continues in its rapid transformation into a more traditional liberal arts format, with higher entry criteria, the conditions that **may** contribute to grade inflation can become more operative at the institution. Recently, President Tribble has emphasized getting more of our graduates into graduate and professional programs. While this is certainly a worthy goal, it can create the exact conditions under which grade inflation can rapidly become a problem as it apparently has in many other fine institutions and on a national level. The CNU administration and faculty must be aware of many of the factors that have been suggested as causal to grade inflation, and work and plan carefully to avoid them. And again, we need to identify the strengths of this faculty that have apparently kept grade inflation in check at CNU.

#### **ACKNOWLEDGMENTS**

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