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ABSTRACT

In fall 1974, Harford Community College instituted a nonpunitive grading system. Students receive grades of A,B,C,D, or *. A "*" indicates that course requirements have not been met; it is not considered in computing the student's Quality Point Index (QPI). This new grading system, in addition to the national trend toward higher grades, led the college's administrative council to request a study to determine if there have been any recent, significant shifts in QPI or honor lists at the college. Study results show an increase in the percentage of students on honor lists, from 18 percent in fall 1973 to 21 percent in fall 1974. There was an increase in the proportion of students with a QPI above 3 and a decrease in the proportion with a QPI below 2, the proportion of students with "middle grades" remaining unchanged. Compared to 1972, there were more A's and fewer C's given in 1973. Compared to 1973, there were more F/*'s given, as well as more A's, in 1974. The proportion of students taking incompletes in 1974 dropped 6 percent since 1973, and withdrawals rose 5 percent. During the year in which the nonpunitive grading system was introduced, the proportion of students receiving passing grades dropped 2.4 percent. Several reasons for these changes are suggested. (DC)

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CHANGES IN QUALITY POINT INDEX AT HARFORD COMMUNITY COLLEGE

Research Report 75-1

SUMMARY

The purpose of this study was to determine if there have been any recent, significant shifts in Quality Point Index (QPI) or honor lists at Harford Community College. A revised grading system was recently introduced. Findings include (1) the proportion of students on honor lists has risen significantly in one year, from 18 percent to 21 percent. (2) The distribution of students among QPI intervals has also risen significantly between Fall, 1973 and Fall, 1974. The proportion of students with an A+ average rose 4% and the proportion with a C average dropped 3%. (3) There has been a consistent trend toward higher grades, with the proportion of students receiving A's doubling in 7 years. The meaning of these changes is a value consideration, reflecting the purposes of grades and the purposes of the College.

Harford Community College
Institutional Research Office
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January, 1975

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CHANGES IN QUALITY POINT INDEX AT HARFORD COMMUNITY COLLEGE

Research Report 75-1

PURPOSE

The purpose of this study was to determine if there have been any recent, significant shifts in Quality Point Index or honor lists at Harford Community College. There are two reasons to suspect possible changes. First, a non-punitive grading system was introduced in the Fall, 1974 Semester. Under this system, there are no "F" grades. Students receive A,B,C,D, or *, where * indicates that course requirements have not been met. The Mark of * is not considered in computing the student's Quality Point Index (QPI). A second reason to suspect a shift is the evidence of a national trend toward higher grades. This study was requested at the 7/10/74 meeting of the College's Administrative Council.

The following research questions were asked:

1. Is there a significant change in the proportion of students qualifying for honor lists between Fall, 1973 and Fall, 1974?
2. Is there a significant change in the distribution of students among QPI intervals between Fall, 1973 and Fall, 1974?
3. Is there a significant change in the proportion of students receiving each letter grade?

METHOD

Data was obtained from the Student Data File, using HCC Computer programs M10540 (Mean Quality Point Index), N00310 (Grade Analysis) and M10757 (Student Academic Listing). The Mean QPI program was revised for Fall, 1974 to exclude all students that completely withdrew during the semester. However, the Mean QPI data for 1973 includes such students, inappropriately inflating the 0 - 0.9 QPI interval. Table II does not show that interval because the data is not comparable.

A Chi-square distribution was used to test whether actual differences were greater than could be expected on the basis of chance variations. The level of significance was set at .05 for the tests.

RESULTS

Question 1. The number of students on honor lists is shown in Table I. While 17.9% of students were on honor lists in Fall, 1973, 21.1% of students were on those lists in the Fall of 1974. This difference is statistically significant. There is only one possibility in 100 that these changes are due to chance. Comparing Spring, 1973 with Spring, 1974, there is a much smaller change in the proportion of students on honor lists. These changes are not statistically significant.

Question 2. The distribution of students among QPI intervals is shown in Table II. There has been an increase in the proportion of students with a QPI above 3. There has been a decrease in the proportion of students with a QPI below 2. The proportion of students with "middle" grades has remained basically unchanged. The Chi-square test shows that these changes are statistically significant. There is less than one possibility in 1000 that these changes are due to chance.

Question 3. The number of students receiving each grade from 1972-1974 is shown in Table III. Looking only at A through F/* grades, there have been significant changes in each year. Comparing 1972-1973, there were more A's given and fewer C's. Comparing 1973-1974, there were many more F/*'s given as well as more A's.

Table III shows dramatic shifts in the proportion of students withdrawing and taking incompletes. The proportion of students taking incompletes in 1974 dropped 6 percent, and withdrawals rose 5%.

One thing has remained fairly constant, however; the proportion of students receiving passing grades has remained at about 70 percent. There was a slight drop in this figure in 1974. During the year in which the non-punitive grading system was introduced, the proportion of students receiving passing grades dropped 2.4 percent.

CONCLUSIONS

This report settles the question of whether there has been an upward shift in the QPI of students at Harford Community College. There has been a clear shift. There have been significant changes in one year. However two important questions remain unanswered: (1) What has caused this shift? and (2) Is an upward shift "good" or "bad"?

The upward shift could result from many sources. Recent years have brought older students to the College. Special developmental courses have been started in English and Math. Harford may be attracting more academically talented students. Instructors may be grading higher. More part-time students are attending and they may be getting higher grades. Whatever the combination of causes, grades are going up, and have been rising for the past several years. The proportion of students receiving A's rose from 12.9 percent in 1967 to 26.4 percent in 1974. In 1973 and 1974, more A's were received than any other grade.

The issue of whether an upward shift in QPI is "good" or "bad" cannot be answered by research. It is a value question, dealing with the purpose of grades and the purposes of the College. If grades are rewards that should only be given to a fixed percentage of students, then an upward shift may be bad. If grades are valid and reliable indicators of success in meeting course objectives, then an upward shift may be good.

Similarly, the purposes of the College are important. To the extent that the College purpose is to assist individual personal development, shifts in QPI may have little meaning. To the extent that the College purpose is to credential students for employment, shifts may have a different meaning. These issues are for the College community to resolve.

TABLE I

NUMBER OF STUDENTS ON HONOR LISTS

| Term | President's List | | Dean's List | | Non-honor | |
|-------------|------------------|---------|-------------|---------|-----------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Fall 1974 | 297 | 10.5 | 298 | 10.6 | 2223 | 78.9 |
| Spring 1974 | 270 | 11.0 | 271 | 11.0 | 1923 | 78.0 |
| Fall 1973 | 218 | 8.5 | 240 | 9.4 | 2105 | 82.1 |
| Spring 1973 | 238 | 10.6 | 275 | 12.2 | 1740 | 77.2 |

There is less than one possibility in 100 that the changes in proportion of honor students from Fall 1973 to Fall 1974 are due to chance.

Chi-square for Fall 1973-Fall 1974 = 9.53

Chi-square for Spring 1973-Spring 1974 = 1.75

$$.99 \chi^2_2 = 9.210$$

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TABLE II
 DISTRIBUTION OF STUDENTS
 AMONG QUALITY POINT INDEX INTERVALS
 (Fall Semesters)

| QPI Interval | 1973 | | 1974 | | Change in Proportion (Percent) |
|----------------|-----------------|---------|-----------------|---------|--------------------------------|
| | Number Students | Percent | Number Students | Percent | |
| 3.5 - 4.0 (A+) | 547 | 29 | 704 | 33 | +4 |
| 3.0 - 3.4 (A) | 537 | 29 | 630 | 30 | +1 |
| 2.5 - 2.9 (B+) | 240 | 13 | 274 | 13 | 0 |
| 2.0 - 2.4 (B) | 350 | 19 | 381 | 18 | -1 |
| 1.5 - 1.9 (C+) | 101 | 5 | 68 | 3 | -2 |
| 1.0 - 1.4 (C) | 109 | 6 | 65 | 3 | -3 |

There is less than one possibility in 1000 that these changes are due to chance.

$$\text{Chi-square} = 34.23; \quad .999 \chi^2_5 = 20.517$$

The 0.0 - 0.9 interval is not shown because the data is not comparable for these two years.

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TABLE III
 NUMBER OF STUDENTS RECEIVING EACH GRADE
 (Fall Semesters)

| Grade | 1972 | | 1973 | | 1974 | |
|------------|------|------|------|------|------|------|
| | # | % | # | % | # | % |
| A | 1781 | 22.9 | 1976 | 25.3 | 2260 | 26.4 |
| B | 1880 | 24.2 | 1924 | 24.6 | 2015 | 23.5 |
| C | 1414 | 18.2 | 1176 | 15.1 | 1221 | 14.2 |
| D | 339 | 4.4 | 358 | 4.6 | 267 | 3.1 |
| * or F | 635 | 8.2 | 654 | 8.4 | 1000 | 11.7 |
| Audit | 14 | 0.2 | 19 | 0.2 | 11 | 0.1 |
| Withdraw | 1059 | 13.6 | 950 | 12.2 | 1462 | 17.1 |
| Incomplete | 657 | 8.4 | 752 | 9.6 | 333 | 3.9 |

Chi-square for grades A - F, 1972 - 1973 = 33.17

Chi-square for grades A - F/*, 1973 - 1974 = 72.36

$.999 \chi^2_4 = 18.456$

There is less than one possibility in 1000 that the 1972-1973 and 1973-1974 changes occurred due to chance.

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