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DIFFERENCES IN ACADEMIC ACHIEVEMENT AMONG THREE AGRICULTURAL FRATERNITIES

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The impact of membership in fraternities on academic achievement has been a concern of researchers for many years (Eurich, 1927; Buckner, 1961; Willingham, 1962). Recent studies indicate that fraternity men's grade averages are as high as non-fraternity men's grade averages when ability is controlled (Buckner, 1961 and Willingham, 1962). However, the aforementioned studies grouped all members of fraternities together, and compared their academic performance to those that were not affiliated with Greek social organizations. On many college campuses, considerable differences exist among fraternities' academic averages and often one, or sometimes a few fraternities consistently achieve the highest grade average.

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On the University of Missouri-Columbia (UMC) campus, it was noted that one fraternity had won the Interfraternity Council Scholarship Trophy three of the past four years. The scholarship trophy is awarded to the fraternity with the highest academic average for a calendar year. Also, this same fraternity's pledges had won the pledge scholarship trophy for the past four years.

This fraternity (Frat A) is one of three agricultural related fraternities at UMC. Like the other two agricultural fraternities, this fraternity is required by its national organization to select prospective members from a list of new students admitted to the University's College of Agriculture. On the College of Agriculture list there is no indication of the new student's academic aptitude or previous academic record. If Frat A selects their members from the same lists as the other two agriculture fraternities, why does it consistently achieve the highest grade average? This was the major question of the results reported in this article.

Method

The data discussed in this paper is based on a sample of 62 members and 40 pledges of the three agricultural fraternities (Frats A, B, and C) at the University of Missouri-Columbia.

The data collected included the Fall 1967 grade point averages; scores on the Strong Vocational Interest Blank (SVIB); the Missouri College English Test (MCET); the School and College Ability Test (SCAT); the high school rank (HSR); and the classificatory information (i.e. farm or non-farm background, size of home community, academic division of initial enrollment and academic division of present enrollment.) The classificatory information and the SVIB scores were obtained during meetings of the fraternities. The MCET and SCAT scores and HSR were collected from the students' files in the UMC Admissions Office. All subjects, with one exception, lived in one of the three fraternity houses. The single exception was married and lived off-campus.

Since attendance at the testing meetings could not be required, the researchers were not able to obtain data on all members of the fraternities. However they were able to obtain scores and information on 70 percent of the members of Frat A, 58 percent of the members of Frat B and 63 percent of the members of Frat C.

Analysis of variance was used to test for differences among the three fraternities pledges' scores and among the fraternities actives' scores on the SVIB, MCET, and SCAT. The "t" test for unequal n's was used to test for significant differences among the fraternities pledges' grades, actives' grades, and high school ranks. The classificatory type variables were analyzed with the chi square technique. The data on the MCET, SCAT, high school ranks, and GPA are presented in Tables 1,2 and 3.

TABLE 1

MEANS AND STANDARD DEVIATIONS OF THE MCET AND THE SCAT FOR THE THREE AGRICULTURAL FRATERNITIES AT UMC

FRATERNITY	MCET		SCAT	
	Mean	S. D.	Mean	S. D.
A				
pledges n=8	54.29	6.67	81.14	7.10
actives n=37	57.46	10.78	76.43	11.15
B				
pledges n=11	54.00	9.88	77.81	9.71
actives n=17	52.80	8.50	76.47	9.87
C				
pledges n=11	53.87	13.11	75.37	15.28
actives n=18	60.88	14.13	86.50	12.09

Results

No significant differences were found among groups on any of the mean MCET or SCAT scores. Analysis of the Strong Vocational Interest Blank yielded similar results. Again no differences were found among any of the three fraternities on the 58 SVIB mean scores or standard deviations. The scores on the SVIB are consistent with those of "Farmer" reported in the SVIB Manual (1959) and by Anderson (1967).

In order to test for homogeneity of the three fraternities on the SVIB, differences in Multiple R correlations were computed for each group. The SVIB, MCET and SCAT correlations with pledge grades and first semester active grades ranged between 0.6 to 0.7. An inspection of this data revealed no significant differences between the fraternities on this criteria. When all three groups' scores were combined and correlated with first semester active grades, a Multiple R of 0.80 was reached. As a group of students they proved to be predictable.

The data in Table 2 reveals that Frat A's pledges had a significant higher high school percentile rank than Frat C's pledges. However, no significant differences on high school ranks were found between Frat A's and Frat B's pledges or between Frat B's and Frat C's pledges.

TABLE 2

COMPARISONS OF HIGH SCHOOL PERCENTILE (HSR) RANKS AND RESULTING t TEST MEAN VALUES OF THREE AGRICULTURAL FRATERNITIES AT UMC

Comparisons	Pledges		Actives	
	HSR	t	HSR	t
A	86.88		83.46	
A v B		1.50		1.44
A v C		2.78[a]		.81
B	77.82		74.71	
B v C		1.28		.10
C	68.71		75.75	

[a]significant at the .01 level

Statistically significant differences were found among the members' environmental backgrounds. In Frats'A and B, all of the pledges were from farms while Frat C had a sizeable proportion from suburban or metropolitan settings. A chi square value of 9.87, significant at the .01 level was obtained when looking at the farm - non-farm backgrounds of pledges. No significant differences were found on this variable between active groups. Frat A had a majority of their pledges indicating home towns of 500 or less population, as opposed to Frat's B and C which had almost 40 percent of their students from larger communities. In addition all of the pledges in Frat A first registered in the College of Agriculture while Frat's B and C acquired students from others entering academic divisions. This difference produced a chi square value of 11.76, significant at the .001 level. When looking at the colleges of the present enrollment of the fraternity members, only one member of Frat A was enrolled outside of the College of Agriculture while several members of Frat's B and C were so enrolled. In this case, a significant chi square value was attained (x^2 = 9.96 significant at the .01 level).

Finally the analysis in Table 3 shows that Frat A's pledges achieve a significantly higher GPA (.05) than the pledges of Frat B or C. The GPA's of the active members of the three fraternities were essentially the same, however.

TABLE 3

COMPARISON OF FALL 1967 MEAN GPA AND RESULTING t TEST VALUES OF THE THREE AGRICULTURAL FRATERNITIES AT UMC

	Pledges			Actives		
	n	GPA's	t Values	n	GPA's	t Values
Frat B	11	2.28		17	2.65	
			1.97[a]			1.08
Frat A	8	2.88		37	2.44	
			2.15[b]			.85
Frat C	11	2.31		18	2.20	

[a] One-tailed t-test significant at .05 level
[b] One-tailed t-test significant at .025 level

Discussion

Why does Frat A consistently achieve the highest grade point average of the three agricultural fraternities at UMC? The data indicate that Frat A's pledges achieved significantly higher grade point averages than the pledges of Frats' B or C.

In regard to Fraternity A's pledges, the data points out that they are all enrolled in the College of Agriculture and are from farm backgrounds where, generally, the home communities are very small, 500 people or less. Men from those backgrounds recruited into Frat A achieve a very high first semester freshman grade point average (2.88). University of Missouri-Columbia records point out that for the Fall 1967, this grade average was higher than any active or pledge group; higher than any men's living group at UMC; and .79 and .51 above the All Freshmen Men's Average and the All Men's Average respectively. A most impressive grade point average for a group of freshmen men at UMC.

What factors help produce such high academic achievement for a group of freshmen men? Unfortunately, the data collected in this study does not answer this question directly, but there are some findings and information available that support hypotheses about this phenomena. First, it should be considered that their enrollment in the College of Agriculture could be a factor. Differences in competition levels and grading practices and between academic divisions could produce differences in grade point averages. However, the Dean's Office in the College of Agriculture reports that first semester agricultural freshmen take on an average, 52 percent of their course work outside of the agricultural college. Therefore, agricultural freshmen are well exposed to competition and grading practices outside of their academic division.

If ability of the fraternity to consistently win the scholarship trophy is considered, then another hypothesis can be asserted. It well could be that there are considerable pressures placed on the pledges of Frat A to achieve very high grade averages. These pressures could come from the active members of the fraternity and within the pledge class. As the research of Feldman and Newcomb (1969) and W. A. Scott (1965) points out, different fraternities on a campus place different emphases upon the importance of academic achievement. Evidently Frat A places high priority on the academic achievement

of its pledges. However, this emphasis dissipates after the student's pledgeship for, as the findings indicated, Frat A's active grades were equal to those of Frats B or C. Is this because the fraternity ceases to emphasize academic achievement after pledging? Or is it because the fraternity active chapter loses controls over its members after they become initiated? These are interesting research questions which could be tested in the future.

Another aspect that may contribute to the grade achievement of Frat A's pledges is their homogenity. Possibly their small town farm backgrounds serve to make them a highly cohesive group. As a highly cohesive group, they could become very susceptible to the pressures of the active members. In this case, the pressure could be for high academic achievement. Also, since the active chapter controls the time of the pledges, the goal for high grade achievement by the pledges can be continually reinforced by the active members.

Unfortunately the research procedures used in this study did not fully measure the dynamics that brought about the high grade average achievement of Frat A's pledges. However, the findings have helped produce some challenging research questions for the future.

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