

Academic Achievement and Degree Persistence Of Community College Transfer Students

Donald M. Johnson

Examination of popular guides to colleges and universities (Dilts, 1989; Fiske, 1991) indicates that many land-grant universities operate under selective student admissions policies. While variations in the degree of selectivity do exist, institutions with such policies establish minimum requirements which students must meet in order to be eligible for admission.

Academic aptitude test (ACT or SAT) scores are widely used in making admissions decisions at selective institutions (Hamilton, 1990). According to Brinkley (1983):

... institutions operating in a state system often have an established [aptitude test] cutoff score ... cutoff test scores are generally established to support a master plan of higher education for that state. (pp. 62-63)

Mississippi State University (MSU) is one land-grant university which uses a cutoff score in making decisions concerning student admissions. To be eligible for regular freshman admission to MSU, an applicant must have earned a composite ACT score of 15 or higher (18 or higher on the enhanced version of the ACT) (Mississippi State University, 1991).

Students not initially eligible for admission to MSU may be admitted as community college transfers once certain requirements have been satisfied. These requirements include completion of 24 semester credit hours of coursework (including six hours of English composition, three hours of college algebra, and six hours of laboratory science) with at least a C average (2.0 on a 4.0 scale) (Mississippi State University, 1991).

Owens (1986) studied agriculture majors enrolled in six Mississippi public community colleges during the spring 1985 semester. He found that 110 (38%) of the 289 students enrolled were in programs designed for transfer to four-year institutions. Owens also determined that, while the mean composite ACT score for students enrolled in the transfer curriculum was 17.6 (SD = 10.2), 51% of the students had earned scores of 15 or less.

According to information supplied by MSU's Office of Institutional Research, 33.5% of the undergraduate students

enrolled in the College of Agriculture and Home Economics (CAHE) for the fall 1989 semester were community college transfers. Johnson, Taylor, and Kohler (1991) found that 38% of transfer agriculture students had been ineligible for admission to MSU as freshmen due to low composite ACT scores. The researchers also found that transfer students were less likely than non-transfer students to earn undergraduate agriculture degrees at MSU.

Problem Statement

Approximately one-third of the undergraduate students in the CAHE at MSU are community college transfers. Almost 40% of transfer agriculture students were ineligible for admission to MSU as freshmen due to low composite ACT scores (Johnson, et al., 1991). This situation raises two important questions. Do community college transfer students ineligible for admission to MSU as freshman and transfer students eligible for admission to MSU as freshmen differ in academic achievement? Do the two groups of students differ in degree persistence?

Definitive answers to these questions are not currently available; therefore, research is needed. Such research would provide information necessary to effectively advise students transferring to MSU from community colleges. In addition, information gained from this study could determine if the need exists to evaluate the impact of current freshman and transfer admissions standards on students enrolled (or desiring to enroll) in the CAHE at MSU.

Purpose and Objectives

This study was designed to compare two groups of community college transfer students in the CAHE at MSU on measures of academic achievement and degree persistence. The two groups were: (a) students having a composite ACT score of less than 15 (not eligible for regular MSU freshman admission) and (b) students having a composite ACT score of 15 or greater (eligible for regular MSU freshman admission). Specific objectives were to:

1. determine if significant differences existed between the two ACT score groups in transfer QPA and/or cumulative QPA, and
2. determine if significant differences existed between the two ACT score groups in undergraduate degree persistence.

Johnson is an assistant professor in the Departments of Agricultural and Extension Education and Agricultural and Biological Engineering, Mississippi State University, P.O. Drawer AV, Mississippi State, MS 39762

Procedures

This study employed the ex post facto research design as described by Campbell and Stanley (1966).

The population for this study included all undergraduate CAHE students initially enrolling at MSU on full-time basis (12 or more semester hours) for the fall 1987 semester who had completed 12 or more semester hours at a regionally accredited community college ($N = 82$). The population was divided into the two groups previously described based on composite ACT scores. Thirty-two students were in the group having composite ACT scores of less than 15. There were 50 students in the group having composite ACT scores of 15 or higher.

The data reported in this study were obtained by the MSU Office of Institutional Research from computerized official university student records. Data compiled for each student included: (a) composite ACT score, (b) transfer QPA, (c) cumulative QPA, and (d) fall 1989 undergraduate status (i.e. graduated, enrolled, or other).

Data for the first objective were analyzed using one-way multiple analysis of variance (MANOVA) followed by univariate analysis of variance (ANOVA). This was done in order to reduce the family-wise error rate associated with multiple ANOVA's (Baker and Baker, 1984). Inferential statistics were used based on the assumption that the students in this study were representative of past, present, and future transfer students in the CAHE at MSU (Oliver and Hinkle, 1982).

Data for the second objective were analyzed using the chi square test of independence. The alpha level for all tests of significance was established at .05 *a priori*.

Results

Transfer students not eligible for regular admission to MSU as freshmen had a mean composite ACT score of 12.0 ($SD = 1.5$). Transfer students eligible for regular admission to MSU as freshman had a mean composite ACT score of 19.5 ($SD = 3.6$).

The first objective of this study was to determine if significant differences existed between the two ACT score groups for transfer QPA and/or cumulative QPA. The results of the MANOVA procedure indicated a significant difference did exist between the two groups for one or both of these variables ($F = 11.84$; $df = 2.63$; $p < .0001$).

ANOVA procedures were used on each dependent variable to identify the variable(s) accounting for the difference between the two ACT score groups. The results indicated the two groups were significantly different on both transfer QPA ($F = 23.02$; $df = 1,64$; $p < .0001$) and cumulative QPA ($F = 19.94$; $df = 1,64$; $p < .0001$). Students in the higher ACT

Table 1. Descriptive Statistics for Transfer QPA and Cumulative QPA by ACT Score Group

Group	Transfer QPA			Cumulative QPA		
	n	X	SD	n	X	SD
ACT < 15	25	2.22	.44	31	2.33	.51
ACT => 15	44	2.87	.63	48	2.73	.59

score group had earned both higher transfer and cumulative QPAs than students in the lower ACT score group. Table 1 presents descriptive statistics for the dependent variables by ACT score group.

The second objective of this study was to determine if significant differences existed between the two ACT score groups in undergraduate degree persistence. In order to satisfy this objective, students were classified into three mutually exclusive undergraduate degree categories: (a) graduated, (b) enrolled in an undergraduate CAHE degree program in fall 1989, or (c) other. The "other" category included all students not graduated or enrolled for fall 1989.

The results of the chi square test indicated that degree persistence was independent of ACT score group membership ($X^2 = 0.378$; $df = 2$; $p = .828$). Table 2 shows the number and percent of students in the three undergraduate degree categories by ACT score group.

Conclusions

The purpose of this study was to compare two groups of community college transfer students in the CAHE at MSU to determine if differences existed in academic achievement and undergraduate degree persistence. The following conclusions were made based on the results of this study:

1. Transfer students in the higher ACT score group had earned significantly higher transfer and cumulative QPA's than had transfer students in the lower ACT score group.
2. There was no difference between the two ACT score groups in undergraduate degree persistence at MSU.

Implications

The findings of this study have implications for recruiting and advising community college transfer students in the CAHE at MSU. In addition, the findings provide some insight into the validity of current MSU freshman and transfer admission requirements.

Students in the lower ACT score group are just as likely to either graduate or maintain enrollment as are students in the higher ACT score group. This information should be communicated to academic advisors and administrators (both at MSU and community colleges) as well as potential community college transfer students.

Students in the lower ACT score group earned significantly lower grades than students in the higher ACT score group. Although this outcome might be expected, it is still a cause for concern. Academic advisors in the CAHE at MSU should provide especially careful guidance for community college transfer students with low ACT scores and/or low transfer QPA's. In addition, CAHE faculty and administrators should consider developing formal intervention pro-

Table 2. Fall 1989 Undergraduate Status by ACT Score Group

Group	Undergraduate Status					
	Graduated		Enrolled		Other	
	n	%	n	%	n	%
ACT > 15	15	46.9	8	25.0	9	28.1
ACT => 15	20	40.0	14	28.0	16	32.0