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ABSTRACT

The purpose of this study was to identify factors related to the academic performance and retention of students who transferred to a four-year university. The population for this study consisted of 232 transfer students. Data were collected via questionnaire surveys and from existing records. Descriptive and correlational statistics were used to analyze and summarize the data. It was found that academic deficiency was one of the major reasons why transfer students canceled enrollment in the college. Students who dropped out earned a lower grade point average (GPA) both at their previous institution and after transferring than those who persisted. Findings also suggest that younger students and male students tended to persist to a greater extent than others. Of all the characteristics examined in this study, GPA on transferring was the best indicator of expected academic performance at the four-year university. Transfer students' academic goals may influence their academic performance. (Author/SLD)

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FACTORS THAT INFLUENCE TRANSFER STUDENTS ACADEMIC PERFORMANCE AND RETENTAION

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FACTORS THAT INFLUENCE TRANSFER STUDENTS ACADEMIC PERFORMANCE AND RETENTAION AT A FOUR-YEAR UNIVERSITY

The purpose of this study was to identify factors related the academic performance and retention of students who transferred to a four-year university. The population for this study consisted of 232 transfer students. Data were collected via questionnaire surveys and from existing records. Descriptive and correlational statistics were used to analyze and summarize the data. It was found that academic deficiency was one of the major reasons why transfer students canceled enrollment in the college. Students who dropped out earned a lower GPA both at their previous institution and after transferring than those who persisted. Findings also suggested that younger students and male students tended to persist to a greater extent than others. Of all the characteristics examined in this study, GPA upon transferring was the best indicator of expected academic performance at the four-year university. Transfer students' academic goals may influence their academic performance.

Introduction

One of the crucial challenges for higher education today is to improve the retention of college students. It is a challenge sparked by the increased number of students leaving colleges or universities prior to degree completion and the decreased number of college going student population in the United States. Despite efforts to curb attrition by various college and university programs, only 46.7% of students in four-year public universities and 38.7% of students in two-year public institutions complete their degrees (Tinto, 1993). This large scale of student leaving higher education without degree completion has concerned most campus administrators, faculty and student service personnel (Umoh, Eddy, Spaulding, 1994; Tinto, 1993; Beal & Noel, 1980; Beatty-Guenter, 1994; Astin, 1977).

Agriculture is an industry of major importance in the United States. Therefore the retention of students majoring in agriculture is of special concern. Decreases in the number of students interested in agriculture combined with the problem of losing students who drop out of colleges before receiving their baccalaureate degrees has drastically reduced the number of students available for employment in food, agricultural and natural resource industries and agencies. Therefore, it is necessary for schools of agricultural and natural resources to adjust and develop

new recruitment strategies and effective retention programs to cope with the demand for properly educated food, agricultural and natural resource professionals.

A significant proportion of students enrolled in agricultural colleges consist of transfer students. Each year a large number of students transfer from community colleges or other two-year or four-year institutions to continue their post secondary education at four-year colleges and universities. For example, the transfer students comprised of 31-38% of the total new entering agricultural students at The Ohio State University each fall. Though transfer students as a group form a significant proportion of the student population generally, they have received little attention in the discussion of retention policies (Tinto, 1993). The academic performance and retention of students after their matriculation from one institution to another remains an area of concern for all parties involved in the transfer process. A number of studies have examined the performance of transfer students. The results of these studies are often conflicting. In addition, a smaller number of studies have investigated academic performance of transfer students in colleges of agriculture and factors which influence their academic performance. Relatively little is known about the retention rates and graduation rates of these transfer students nor the factors which influence these rates. Thus agricultural transfer students' academic success and, most importantly, their success in attaining the baccalaureate degree are still ambiguous. In responding to this need, this study was designed to identify factors that influenced agricultural transfer students' academic performance and retention. By gaining this information, the colleges of agriculture will be able to further improve recruitment strategies for transfer students and also improve strategies for retaining a higher proportion of transfer students.

Tinto's (1993) longitudinal model of institutional departure provided the conceptual framework for this study. This model describes that individuals departure from institution can be

viewed as a longitudinal process of interactions between an individual's attributes and background and other members of the academic and social systems of the institution. Individual's attributes and dispositions at entry have a direct impact upon departure from college. These attributes will interact with institutional characteristics and then influence students' decision of leaving.

Purpose and Objectives

The purpose of this study was to identify factors related to transfer students' academic performance and retention. Furthermore, the study also sought to determine the relationship of transfer student retention to their academic performance at previous institution(s) and after transfer. The study addressed the following research questions:

1. How did transfer students perform after transfer in terms of GPA, hours earned, academic status as measured by a classification system of "good", "warning", "probation" and "dismissal"?
2. What was the graduation rate and dropout rate of transfer students?
3. What were the differences between students who remained in the college and those who dropped out in terms of educational goals, academic satisfaction, interaction with the institution, study habits, hours of work on a paid-job per week, and hours of study per week?
4. What was the relationship between retention of transfer students and their GPA's at previous institutions and transfer?
5. How did type of previously attended institutions of higher education, hours earned at previous institution(s), number of previous institution(s) attended, gender, age, educational goals, academic satisfaction, interaction with the institution, and study habits of transfer students influence their GPA after transfer and retention?

Methods

This study was a descriptive correlational study. The population consisted of 232 agricultural undergraduate transfer students who enrolled at College of Food, Agricultural, and Environmental Sciences at The Ohio State University (OSU) from fall quarter 1990 to spring quarter 1993. Data were collected via a comprehensive survey instrument including demographic data, educational goals, academic satisfaction, interaction with the institution, and study habits. Validity and reliability of the instrument were established by a panel of experts and a pilot test. Students' academic information was obtained fall, 1996 from transfer students' academic records on file in the Dean's Office and from the Office of the University Registrar. A survey questionnaire was administered to the 206 accessible students during fall quarter 1996. A series of follow-up procedures including two postcard reminders and follow-up phone calls were used to enhance response rate. Sixty-nine (33.5%) of the instruments were returned. To account for the non-respondents, demographics and academic variables were compared between respondents and the population. It was found that students who dropped out tended to avoid responding to the survey. Therefore, findings from mailed survey are only generalizable to the respondents. In order to accomplish the purpose of this study, descriptive and correlational statistics were used to analyze and summarize the data.

Results

A majority of students in this population transferred from four-year colleges or universities (56%). They had earned an average GPA of 2.72 and 85 credit hours upon transferring. Their average age was 22. Among those students, 59.5% were males. The primary influential factor of transferring was their parents. Animal Science was the most selected major (35.2%) among this group of transfer students. Overall, after transferring, students in this study earned a GPA of

2.46 and 101 credit hours after transfer to OSU. About sixty five percent (65.2%) of the transfer students were in good academic standing at OSU at the time of data collection. The majority of the transfer students had farm or agricultural work experiences.

Research Question One- How did transfer students perform after transfer in terms of GPA, hours earned, academic status as measured by a classification system of “good”, “warning”, “probation” and “dismissal”?

As reported in Table 1, students who were retained performed better than those who dropped out after they transferred to OSU. Retained students earned a higher GPA ($M=2.77$), completed more credit hours ($M=140$), and maintained a higher academic standing (80.6%) than those who dropped out.

Table 1. Academic Performance of Transfer Students (n=232)

	Retained Students (n=139)		Dropped-out Students (n=93)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
OSU GPA	2.77	.51	2.01	.95
Hours earned	140	32	43	38
Academic Status	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
-good	112	80.6	38	41.8
-warning	10	7.2	5	5.5
-probation	17	12.2	29	31.8
-dismissal	0	0	19	20.9

Table 2 reveals little difference between males and females on their mean GPA after transferring to OSU. Of those who were retained, females earned a higher GPA than males. In contrast, among students who dropped out, females had a lower GPA than male students. Students from community colleges for both groups performed comparable to or even slightly better than those from four-year colleges. Students from technical colleges had the lowest GPA on average for students who were retained and students who dropped out.

Table 2: Mean GPA at The Ohio State University by Gender and Type of Institutions

Variables	Retained Students	Dropped-out Students
Gender (n=232):		
-female	2.89	1.93
-male	2.67	2.10
Type of Institutions (n=211):		
-community colleges	2.85	2.24
-technical colleges	2.64	1.80
-four-year colleges and universities	2.80	2.01

Research Question Two-What was the graduation rate and dropout rate of transfer students?

Enrollment status of the population was collected from the Office of the University Registrar in fall quarter, 1996. Data in Table 3 reveal that 53.4% of the students graduated, 40.1% dropped out, and 6.5% were currently enrolled students. The retention rate for the population was 59.9%.

Table 3. Enrollment Status of Transfer Students (n=232)

Enrollment Status	n	%
Currently enrolled	15	6.5
Dropped out	93	40.1
Graduated	124	53.4
Total	232	100

Table 4. Retention Rates By Type of Previous Institutions

Students	Community College		Technical College		Four-year College	
	n	%	n	%	n	%
Retained	27	52.9	25	58.1	76	65
Dropped out	24	47.1	18	41.9	41	35
Total	51	100	43	100	117	100

Retention rates and drop out rates were compared among students who transferred from three different types of institutions. As shown in Table 4, students from four-year colleges and

universities had a higher likelihood of remaining in the college. However, students from community colleges dropped out somewhat more often than students from technical colleges and four-year colleges. Dropout rates for students who transferred from community colleges, technical colleges, and four-year colleges and universities were 47.1%, 41.9% and 35% respectively.

Table 5. Retention Rates By Gender

Gender	Retained Students		Dropped-out Students	
	n	%	n	%
Male	91	65.5	47	50.5
Female	48	34.5	46	49.5
Total	139	100	93	100

Table 5 shows that male and female ratios among retained students were somewhat different. Among the students who were retained, there were more males (91; 65.4%) than females (48; 34.5%). In the group of students who dropped out, there was about the same number of males (n= 47; 50.5%) as females (n= 46; 49.5%).

Research Question Three-What were the differences between students who remained in the college and those who dropped out in terms of educational goals, academic satisfaction, interaction with the institution, and study habits?

Of the 69 respondents, more students who were retained aspired to obtain a Master's degree (34.5%) and more students who dropped-out aspired to earn a B.S. degree (70%). Table 6 shows that the average academic satisfaction for students who were retained was 4.27; it was 4.51 for the 10 students who had dropped out but responded to the questionnaire. Interestingly students who dropped out and responded to this survey tended to be a slightly more satisfied with the college. Students who dropped out perceived that they had slightly less interaction with the college than those who were retained. The average interaction score for students who dropped

out was 3.72 (range was 1.48 to 5.33 in a scale of 1 to 6); the mean score for respondents who were retained was 3.91 (range was 2.24 to 5.05 in a scale of 1 to 6). The two groups of students had similar study habits (mean of 3.66 for the respondents who were retained and 3.56 for the eight respondents who dropped out in a scale of 1 to 6), but respondents who were retained had a slightly higher mean score than those who dropped out.

Table 6. Educational Goals, Academic Satisfaction, Interaction with Institution, and Study Habits of Transfer Students

Variables	Retained Students (n=58)		Dropped-out Students(n=10)	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Educational goals:				
-non-degree study	2	3.5	0	0
-B.S. degree	25	43.1	7	70
-Master's degree	20	34.5	1	10
-PhD degree	10	17.2	2	20
-unsure	1	1.7	0	0
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Academic satisfaction*	4.27	.65	4.51	.64
Interaction with institution*	3.91	.64	3.72	1.00
Study habits*	3.66	.57	3.56	.61

* 6=very strongly agree; 5=strongly agree; 4=agree; 3=disagree; 2=strongly disagree; 1=very strongly disagree.

Research Question Four-What was the relationship between retention of transfer students and their GPA's at previous institution and after transfer?

To answer this question, correlational analyses were employed. Davis' (1971) description of association was used to measure strength of relationships. Data revealed that transfer students' GPA's at both previous institutions and OSU were significantly related to their retention at OSU at an alpha level of .05. OSU GPA had a moderate relationship ($r=.46$) with retention (See Table 8). Students with higher OSU GPA's were more likely to stay at the college until graduation. GPA at previous institutions had a significant ($p<.05$) low association with retention ($r=.22$).

Table 7. Associations Between Selected Variables and OSU GPA

Variables	Statistics	Coefficient	Description
GPA at previous institution(s) (n=211)	Pearson r	.51*	substantial
Hours at previous institution(s) (n=204)	Pearson r	.16*	low
Type of previous institution(s) (n=231)	Eta	.20	low
Number of previous institution(s) (n=210)	Pearson r	.03	negligible
Age (n=232)	Pearson r	.01	negligible
Gender(n=232)	Point-biserial	.04	negligible
Educational goals(n=68)	Spearman-rank	.32*	moderate
Academic satisfaction (n=69)	Pearson r	.03	negligible
Interaction with the institution (n=69)	Pearson r	.08	negligible
Study habits(n=69)	Pearson r	.12	low

* Significant relationship between two variables was observed at alpha =.05 level

Table 8. Associations Between Selected Variables and Retention

Variables	Statistics	Coefficient	Description
GPA at previous institution(s) (n=211)	Point-biserial	.22*	low
GPA at OSU (n=232)	Point-biserial	.46*	moderate
Hours at previous institution(s) (n=204)	Point-biserial	.09	negligible
Type of previous institution(s) (n=231)	Cramer's V	.14	low
Number of previous institution(s) (n=210)	Point-biserial	- .01	negligible
Age (n=232)	Point-biserial	- .19*	low
Gender(n=232)	Phi	.15*	low
Educational goals(n=68)	Cramer's V	.23	low
Academic satisfaction (n=69)	Point-biserial	- .13	low
Interaction with the institution (n=69)	Point-biserial	.10	low
Study habits(n=69)	Point-biserial	.06	negligible

* Significant relationship between two variables was observed at alpha =.05 level

Research Question Five-How did transfer students' type of previously attended institutions of higher education, hours earned at previous institution(s), number of previous institution(s) attended, gender, age, educational goals, academic satisfaction, interaction with the institution, and study habits influence their GPA after transfer and retention?

Data in Table 7 and 8 show that hours at previous institution(s) by students and their educational goals were significantly related to their OSU GPA at an alpha level of .05. Educational goals were found to have a significant ($p < .05$) moderate association with OSU GPA ($r = .32$). The higher the degree students aspired to seek, the higher GPA they earned. There was also a significant ($p < .05$) low relationship between hours at previous institutions and OSU

GPA ($r = .16$). The more hours transfer students earned at previous institution(s), the higher GPA they were likely to earn at OSU. Type of previous institutions, number of previous institutions attended, age, gender, academic satisfaction, interaction with the institution, and study habits were not related to transfer students' OSU GPA.

Gender was found to have a significant low relationship with retention ($r = .15$). Male students tended to stay in school more than their female counterparts (in this case, female was coded as "0" and male was coded as "1"). Transfer students age had a significant ($p < .05$) negative low association with retention ($r = -.19$), revealing younger students were more likely to be retained. Other associations were found due to chance.

Conclusions

The following conclusions are formed based on the findings of this study:

1. Generally transfer students have attended one four-year institution prior to transferring and earned a GPA of 2.72. Typically they earned 85 hours at the previous institution(s). About 59% of transfer students are males. The average age of the population is 22. Parents are the primary influencers of students decision of transfer. The majority of the transfer students have agricultural and farm experience.
2. Academic deficiency is one of the major reasons why transfer students depart from higher education.
3. Transfer students are almost as successful in completing their college degree as students who matriculate directly into the college.
4. The college seems to be meeting the academic needs of transfer students who were retained and those who dropped out similarly as measured by students perceived academic satisfaction and interaction with the institution.

5. Considering the average scores for academic satisfaction and interaction with the institution of transfer students, the college should further improve its performance as judged by transfer students.
6. It appears that GPA after transfer is the single most important measure associated with transfer student retention.
7. Of all the characteristics examined, it appears that GPA upon transfer is the best indicator of expected academic performance after transfer.
8. The academic performance and retention of transfer students does not differ according to the type of institution(s) of higher education (community colleges, technical colleges, and four-year colleges and universities) from which students transferred.
9. The number of previously attended institutions is not a factor in determining transfer students academic performance and retention after transfer.
10. Interaction with the institution, academic satisfaction and study habits are not the factors related to transfer student academic performance and retention.

Implications

This research revealed important information for administrators, faculty and student personnel related to transfer student's academic performance and retention. These findings have implications on retention strategies which addressing transfer students' needs. It is recommended that to improve retention rates of transfer students, the following practices should be implemented:

1. Tailor programming and intervention strategies for transfer students

The college staff should review student demographic information and academic records at their previous institutions after they have been admitted in order to do a better job of tailoring

programming and intervention strategies to sub-groups of transfer students. Special attention should be given to transfer students with lower GPA's at their previous institution(s) to help them to make better academic transition in the university.

2. Enhance the orientation class for transfer students

The college should offer an orientation course for all entering transfer students. The orientation class can help students understand what is expected of them in order to complete their college degree programs and where to find assistance when it becomes necessary to do so. It is recommended that upper class transfer students, faculty, and staff be invited to meet with new transfer students in the orientation class in order to increase new students interaction with the institution. Advanced students who transfer to the college should mentor new transfer students.

3. Assist transfer students in their transition

The college should develop transition assistance programs to assist students in overcoming the many social and academic difficulties that arise for transfer students as they make the transition into a new institution. Formal or informal seminars can be designed to stress academic and social issues. Faculty, staff and upper class transfer students should make informal personal contact with new transfer students to help them build academic and social communities.

4. Enhance the interaction of transfer students with the institution

The college should strive to increase the extent of transfer student contact with other members of the institution and with the various communities that make up its daily life. The faculty members are key links to the intellectual life of the institution. To encourage such interactions, individual faculty and staff should become advisers or mentors to beginning transfer students. Other programs such as informally organized seminars, or dinners with faculty on or off campus could also serve as the same purpose. Contact among students in informal

settings may be particularly important in integrating the new transfer students into the fabric of student culture.

5. Monitor academic performance

The college staff should monitor transfer students academic performance closely after they transfer into the college. Special attention and support should be provided for students with lower GPA's and fewer earned hours upon transferring. The same is true for female transfer students. Attention should also be given to transfer students with grade point averages below 2.00 after their transferring. It is recommended that this monitoring be implemented once each quarter and an early warning should be issued to the students before it is too late to help them.

6. Follow up dropped-out students

It is recommended that attempts be made to follow up students who drop out. Personal interviews, phone calls or other personal contacts should be conducted immediately with students who withdraw from the college. This may allow the college to determine reasons for transfer students giving up their college career. Results can be used to evaluate and improve the retention programs for future transfer students. At the same time, the college should encourage them to re-enroll in the college or another institution.

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