## A COMPARISON ON

## ACADEMIC PERFORMANCE

# OF BRANCH CAMPUS TRANSFER AND NATIVE MAIN CAMPUS STUDENTS

# AT THE OHIO STATE UNIVERSITY

## A Thesis

## Presented in Partial Fulfillment of the Requirements for the Degree Master of Arts

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Approved by

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## ACKNOWLEDGMENTS

In addition to acknowledging the encouragement and support of family and friends, the author wishes to express appreciation to Donna Nagely and Dean Richard Zimmerman for their assistance during this study. Special appreciation is extended to Dr. Paul MacMinn without whose guidance this study could not have been formulated and completed.

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## Chapter I

## INTRODUCTION

A great deal of literature and discussion has revolved around the issue of the junior college experience. As more and more of these two-year institutions have been established in the past several decades, the need for evaluation and research has become apparent.

A major premise upon which the junior college movement has been based is that a greater number of students can be provided with an opportunity for higher education. Medsker (1960) refers to the junior college as a "democratizing agency" by virtue of the fact that it often provides opportunity and motivation for students to begin some kind of educational experience beyond the high school level that might otherwise not have been obtainable. Because the junior college can offer a lower cost education near the students' own home community, it can meet the needs of many students who for various financial or personal reasons cannot initially enroll in a four-year institution. In addition, it is often contended that the junior college can provide a smaller, less pressurized academic and social environment for its students. In theory this would allow the student to establish himself and achieve academically without having to face the financial and social burdens of the four year college or university. If the student selected to continue his education beyond the two years offered at the junior college, it would seem that this period of adjustment would provide for an easy transition into the four-year institution and thus increase the likelihood of success.

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In accordance with the above assumptions, a wide variety of colleges and universities throughout the country have established twoyear campuses that are physically separated from their main campuses. These campuses are essentially very similar to junior colleges in that they provide an opportunity for more students to begin pursuing their baccalaureate degrees who might otherwise not be able to attend the main campus. The Ohio State University established such a system of branch campuses in 1958. By creating a number of small campuses located throughout the state of Ohio, the university was able to provide an inexpensive, easily accessible source of higher education for many of its students. Two year programs were established at these branches that closely resembled the programs offered on the main campus in Columbus. Freed from room and board fees and the social pressures of residence on campus, it was thought that students could begin work toward their degrees at the branch campuses and then transfer to a four-year institution to complete that degree. Because of the accessibility of the Columbus campus and the convenience of not having to transfer academic credits, it was expected that most of the students would come directly to the main campus at the end of their sophomore year.

By 1966, four branch campuses had been established and were functioning at capacity. Students were enrolled on a commuting basis at each of the following campuses; Newark, Mansfield, Marion, and Lima. (The Lakewood Branch was discontinued in 1966.) While no exact statistics were kept regarding the number of students who moved to the main campus to complete their degrees, it could be seen that many were

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enrolling as resident students in Columbus after one or two years at the branch.

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Questions have been raised regarding the success of junior college transfer students, and these same questions might be directed toward branch campus transfers as well. Faced with the two variables of oncampus residence and increased size, it would seem as though students transferring from the branches might find adjustment to the main campus somewhat difficult. In addition to the non-academic variables just mentioned, the student might find the academic experience very different on the main campus as compared to the branch campus. Every effort has been made on the part of the university to create an educational experience on the branch that is comparable to that received on the main campus. With few exceptions, courses and curriculum are identical in design, assigned texts are similar, and even the same faculty often teach their courses at both the main and a branch campus. In spite of these attempts however, inherent differences exist between small and large campuses and these affect the total academic experience provided to students. Class size, classroom and laboratory facilities, degree of student-faculty interaction, and the size of the library all are factors that could create differences. In order to be successful academically on the main campus, the branch campus transfer student must adjust to these factors. Since the major criteria of success on any college campus is grade point averages, this would mean that the transfer students would have to obtain sufficient grade point averages to meet the standards and competition of the main campus.

In addition to the concern for the adjustment of the branch campus student to the main campus, many feel that factors such as ability levels and degree of motivation influence the success of the branch transfer. They would argue that the branches tend to attract lower ability students who are not adequately motivated to persist toward a degree. Combining these factors, many would hypothesize that students who transfer from a branch campus to a main campus would not achieve at a level equal to the native main campus students.

A lack of research in this area on the Ohio State University's campus leaves many wondering whether or not the branch campus students who do transfer to the Columbus campus are able to meet the standards and achieve academically on a level equal to those students who bsgin their academic careers on the main campus. The concerns outlined above have a great deal of significance for the branch campuses in terms of evaluating their role in the total university structure. If the branch campuses are indeed performing the role that they set out to perform, they should be providing students with an opportunity to achieve academically on an equal basis as those students on the main campus.

This study has been designed to answer the basic question; does the branch campus transfer student who comes to the main campus perform on an equal level with the student who began his academic work on the main campus? Performance will be defined in terms of grade point averages and a sample of students from both the branch campuses and the main campus will be compared on this basis. As an outgrowth of the primary concern, information regarding attrition rates and ability levels of these students will be compared.

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-5-In addition to the objectives stated above, it is hoped that this Study will provide a general picture of the transfer process that takes place between the Ohio State Branches and the main campus. The number of students transferring and the stages at which they transfer will be explored.

In summary, the major concern with which this study will deal is that of the academic performance of branch campus students who transfer to the main campus of The Ohio State University. Primary emphasis will thus be placed upon an analysis of the grade point averages achieved by both branch and native students on the main campus. In an effort to clarify the nature of the branch campus students who do transfer to the main campus the following three areas will also be examined:

- 1. The pattern of the transfer process,
- 2. the ability levels of the branch campus students who transfer to the main campus, and
- 3. the degree to which branch campus transfer students persist toward their academic degrees, i.e. their attrition rates.

## Chapter II

#### REVIEW OF THE LITERATURE

While an abundance of research exists that concerns the junior college transfer student, relatively little has been directed specifically toward the branch campus transfer process. It thus becomes necessary to determine whether or not research pertaining to the junior college student is relevant when considering branch campus students. The majority of authors who have written about the junior college see little discrepancy between the two. Blocher, Plummer and Richardson (1965) define the junior college as, "a public or private two year college whose primary emphasis is upon college-transfer courses and programs." (p.23) Medsker (1960) uses the term junior college to: "denote the wide range of two year schools rather than just those institutions that happen to be called junior colleges." (p.16) Thus branch or extention campuses can be considered junior colleges in his definition. If these definitions can be considered valid, research that concerns junior college transfer students can be applied to branch campus transfers as well.

Since the major concern of this study will be to look at the academic performance of branch campus students after they transfer to the main campus, a review of the research will concentrate primarily upon studies that have to do with the academic success of junior college students who transfer to four-year institutions. Included in these studies are additional findings regarding attrition rates and variables that affect the transfer students' academic performance. Because

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-?these factors pertain to the secondary goals of this study, they will also be examined.

Many studies have compared transfer students with native students in terms of grade point averages. The conclusions reached by these studies tend to fall along a continuam, ranging from those that find no significant difference, to those that find transfer students performing at a level below native students.

In a group of studies conducted in the early 1930's, it was shown that students who transferred from junior colleges performed at a level equal to, if not better than, native students. Studies conducted by Watt and Teuton (1930), Grossman (1934), Congden (1932), and Allen (1930), all found that students who transferred from twoyear colleges to four-year institutions achieved academically at a level equal to students who were native to those campuses.

Several authors (DeRidder, 1951; Hills, 1965; Medsker, 1960) have taken note of the fact that these early studies tend to conclude that junior college transfer students achieve as well as native students. DeRidder (1951) found in his review of the literature that this trend tended to reverse itself after 1950 and studies then began to find significant differences in levels of performance. It might be hypothesized that this change in the outcome of the studies reflects both a change in the nature of the junior colleges as well as a change in the nature of the junior college students.

Martotana and Williams (1954) compared a group of students who transferred to the State College of Washington with a group of native Washington students. When they controlled for the following six variables: sex, major curriculum area, size of high school, year in college, scores on the American College Examination (ACE), and high school rank, they found no significant difference in academic performance. Of the variables that they controlled for, the time of transfer (year in college) was significantly related to academic success. Those students who performed below the median level were those who had transferred after two years, while those who performed at or above the median had transferred after only one year.

In a similar study done at the University of Georgia, Irvine (1966) found comparable results. While there was no significant difference between the performance of transfer and native students, he found a positive correlation between the amount of time spent on the main campus and the level of academic achievement. The sooner the student came to the main campus, the better he tended to do. In addition he found a slight difference between the performance of men and women - the men performing at a lower level than the women.

The above two studies seem to indicate that junior college students perform as well as native students after they transfer to a four-year institution. It should be noted that both of these studies controlled for the ability levels of the students as well as for other variables that they found significantly related to academic performance. The following group of studies agrees with the conclusion that two-year transfer students perform at a level equal to native fouryear students, but indicates that the transfer student tends to experience some degree of difficulty immediately following his transfer. While the final performance records are comparable, these studies

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-9indicate a grade point drop at the end of the transfer students' first term on the four-year campus. This phenomenon has often been referred to as "transfer shock."

Hoyt (1960) studied junior college transfers to Kansas State University. He found that the transfer students' grade point average went down during the term immediately following their transfer. This decrease in grades placed the group of transfers below the main campus median grade point average for that term, but by the end of the junior year there was no significant difference between the two groups. Hoyt accounted for this fact in terms of the "transfer shock" concept.

In a study of branch campus transfer students at Pennsylvania State University, Lindsay and Hamel (1967) found that the transfer students performed at a level equal to that of the native students when both groups were controlled for ability levels. They did find, however, a significant drop in the branch campus students grades at the end of their first term on the main campus. This drop resulted in a significant difference between the two groups for that specific term; however, this difference disappeared by the end of the next grading period.

In a review of recent studies that were compiled for a longitudinal study by the Research Center at Berkley, California, Medsker (1960) concluded that most transfer students from junior colleges experiencesd an initial drop in their grades when they reached a four-year college or university. While this drop was not usually over 0.3 grade points, it did tend to place the transfers below the level of native students for that semester. He reported that on the whole this difference tended to disappear by the senior year.

While the concept of "transfer shock" has become widely accepted,

several studies indicate that junior college transfers do not recover sufficiently after their first term to perform at a level equal to that of native students. The following three studies revealed a significant difference between the academic performance of transfer students and native students.

In a nation-wide study of the junior college transfer student Knoell and Medsker (1964) reported a significant drop in the grade point averages of junior college transfers in their first term of transfer. This drop did not tend to disappear enough, however, to compensate for a lower performance level than that of the native students. The transfer students remained slightly below the native students throughout their period of study at the four-year institution. It must be noted in considering this study that no control was made for the ability levels of the two groups that were compared. The possible ramifications of this omission will be considered at a later point in this chapter.

Nail (1958) conducted a study at the University of Colorado in which he compared a group of transfer students with a matched group of native students. He found that there was a significant difference in the grade point averages that favored the native students. While the difference decreased from 0.49 grade points at the beginning of the junior year to 0.10 grade points by the time of graduation, the dis crepancy was significant throughout. In addition to the difference found between the two main groups, he found that the college into which the junior college student transferred was significant. While the transfer students as a group tended to perform below the level of the

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native students, those that transferred into the College Of Engineering acheived a mean grade point average that exceeded the native students.

Holmes (1961) compared junior college transfers with transfers from four-year institutions that came to the College of Liberal Arts at Syracuse University. He controlled for several variables, including high school rank, and compared both of these groups with native liberal arts students. He found that the junior college transfers performed below the level of both the other groups. The percentage of students falling below the minimum grade point average of 1.0 was significantly higher for the junior college students than for either of the other two groups.

In any discussion of the relative academic achievement of junior college transfer students when compared with native four-year college students, the question of ability levels must be taken into consideration. While the above group of studies seem to indicate that junior college students do not perform as well as native students when they reach the four-year campus, it is important to note whether or not they controlled adequately for ability levels. One of the major concerns that people share about the junior college is that it tends to attract students who exhibit lower ability levels than do four-year institutions. If the junior college does indeed attract such students, this factor may account for differences in performance.

Medsker (1960) discusses this factor in his book, <u>The Junior</u> <u>College: Progress and Prospective</u>. In reviewing several studies concerning the academic aptitude of junior college students, he concludes that:

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"The available facts indicate that the average academic aptitude of students entering two-year colleges is somewhat below that of those who enter four-year colleges." (p.30)

He goes on to note however, that there is a wide range of abilities among two-year college students and that many exhibit abilities superior to students that enter four-year institutions.

Seashore (1958) found that the academic abilities of junior college students as measured by the College Qualifying Test (CQT) showed that they compared at the 25th percentile score with college freshmen in four-year institutions.

In a similar study Siebel (1966) compared junior college students with four-year students in terms of scores on the Preliminary Scholastic Aptitude Test (PSAT). He found that four-year students scored a mean raw score of forty-six, while junior college students scored at a mean of thirty-eight.

In a study conducted at the Pennsylvania State University (Lindsay, Marks, and Hamel: 1966) that compared two-year branch campus transfer students with students at the main campus, a difference was found in predicted grade point averages. The native students had a significantly higher predicted average than did the transfer students. Since the predicted grade point averages were computed from a combination of ability test scores and rank in high school class, this difference tends to indicate a difference in the ability levels of the two groups.

In summary, the existing literature seems to point out a difference in the ability levels of junior college students and students who attend four-year institutions. These findings are significant if one is to study the academic success of transfer students in comparison to

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native students. It would seem that the level of ability of the students must be controlled if one is to gain a realistic picture of the academic success of the transfer student as compared with the native student.

In addition to finding differences in the ability levels of twoyear transfer students and native students, several studies have found differences between the attrition rates of these two groups. Since attrition tends to indicate level of motivation as well as academic ability, it is interesting to note these findings.

Knoell and Medsker (1964) found a difference in attrition rates in their nation-wide study of the junior college transfer. They report that the combined group of native four-year students maintained an average attrition rate of 5%, while the transfer group maintained a rate of 8%.

A similar finding was also reported in the study conducted by Lindsay, Hamel, and Marks (1966) at the Pennsylvania State University. They compared branch campus transfer students with native main campus students and found a significant difference between the attrition rates of both groups. The transfer group had a higher rate of attrition than did the native group.

In summarizing the available research on the junior college transfer student, several conclusions seem warranted. While the studies of academic success disclose varied findings, there seems to be a tendency to conclude that little or no difference exists between the performance of transfer students and native students when certain variables are controlled. While the general performance level seems to be equal,

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junior college transfers tend to experience academic difficulty during the first semester following their transfer. This phenomenon has come to be termed "transfer shock." Of the variables needing control, the ability level of the students seems crucial. Studies have shown that two-year colleges attract lower ability students. If this variable is not taken into consideration when comparing the academic performance of the transfer student with that of native students, studies have found significant differences in grade point averages. In addition to the variable of ability level, the research tends to show that other factors are significantly related to performance. Among these variables are sex, time of transfer, and college enrollment.

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# Chapter III

# METHODOLOGY

The primary concern of this study was to determine the academic performance of branch campus students who transferred to the main campus of The Ohio State University. In addition to this major concern, three additional areas were to be examined:

1. The pattern of the branch-to main campus transfer process,

2. The ability levels of the branch campus students who transfer to the main campus, and

3. The attrition rates of the branch campus transfer students. The experimental design employed to determine the academic performance of the branch campus students facilitated the examination of these latter concerns. In the following discussion the methodology used to determine the academic success of branch campus students will be described. Special attention will be directed to those aspects of the procedures that allowed examination of the three secondary concerns. Design

In order to determine the academic performance of the branch campus transfer student, an experimental design was employed that allowed comparison between branch campus transfers and native main campus students. In this design the academic experience, i.e. branch campus vs, main campus, was considered the independent variable. Those students who attended the branch campuses and then transferred to the main campus in order to complete their degrees were considered the experimental group; those students who attended the main campus for

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their entire academic careers were considered the control group.

The academic performance of these two groups was the variable under examination; thus it was considered the dependent variable. Since the grade point average is the only available means of measuring academic performance, this was used as a basis for comparison and analysis.

After reviewing the available research on the transfer student, several variables were found to be significantly related to academic performance. Among these were: 1) the sex of the student, 2) the college or curriculum into which the student transferred, and 3) the measured academic ability of the student. In order to insure that the academic experience was the primary variable affecting the academic success of the students under examination, an attempt was made to control for these variables in the study. The methods that were used to achieve this control will be discussed at a later point in this chapter. Subjects

Before commencing this study it was necessary to identify a group of students who had begun their academic work on the branch campuses ard then transferred to the main campus to complete that work. In order to account for the possibility of transfer shock for these students' academic performance once they reached the main campus, it was felt that their grade point averages should be observed over a period of time. One academic year was considered sufficient for such observation. This necessitated the selection of a group for whom three quarters of academic work had already been completed on the main campus. Since these data were available for the academic year 1966-67,

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this was the time period selected for examination.

One might assume that the identification of a group of branch campus students who had transferred to the main campus could easily be made by referring to student records. Upon examination of the existing records however, it was found that this information was not available. Because the university did not consider the move from a branch campus to the main campus an actual "transfer", notation was not made on the students' records. As a result, the procedure required to identify the experimental group proved to be somewhat complex.

In order to identify a group of students who transferred from one of the branch campuses to the main campus at the beginning of the autumn quarter 1966, it was necessary to refer back to the previous spring quarter and identify those students who were enrolled on the branch campuses. By looking through a list of branch campus students for that quarter and comparing this list to the list of students enrolled on the main campus for the following autumn quarter, it was possible to identify students who had transferred.

A list of students enrolled in either of the four branch campuses (i.e. Lima, Mansfield, Marion, and Newark) during the spring quarter 1966 was initially examined. All those students who had been enrolled on that campus for at least three quarters were selected ac potential transfers. Students who had completed less than three quarters of academic work were not included on this list. It was felt that these students would not have had sufficient experience in the branch campus environment to be considered transfers.

The list of potential transfers was then checked against the list

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of students who had enrolled on the main campus for the autumn quarter 1966. Those students whose names appeared on both lists had transferred from the branch campus to the main campus. The procedure used to identify branch campus students who had transferred to the main campus allowed comparisons to be made regarding the numbers of students who came to the main campus from the various branches. Since the examination of the transfer process was stated as one of the secondary goals of this study, this data is presented in Table 1.

#### TABLE 1

	Number and Percent of Trans	fers from the Branch	
	Campuses to the Main Campus	at the Beginning of	
	Autumn Quarte	er 1966	
	Number of Potential*	Number of Students	
	Transfers Enrolled	Transferred to the	
Campus	Spring 1966	Main Campus	搅 Transferred
Lima	242	55	22.5
Mansfield	251	63	25.1
Marion	130	59	45.5
Newark	116	31	26.7
Tota	le 730	208	28.2
1004.		200	~~~~

\*potential transfers were defined as those students enrolled on the branch campus for three or more quarters.

The group identified in the above manner consisted of students whose class rank ranged from II to III and who had completed anywhere from three to nine quarters at the branch. In an attempt to control for the possible effect of time of transfer for the group, it was felt that all the students should have had an equal number of quarters at the branch before they transferred to the main campus. In order to identify the most frequent pattern of transfer, the group was broken down according to the number of quarters that they had spent on the branch. Table #2 presents this breakdown.

#### TABLE 2

	Campuses Before	Transferring to the Main Ca	mpus
Number of Completed	Quarters at Branch	Number of Transfers	% of Total Transfers
3		25	12.0
4		5	2.4
5		5	2.4
6		137	65.8
7		11	5.3
8		6	2.9
9		19	9.2

## Number of Quarters Students Completed at the Branch Campuses Before Transferring to the Main Campus

It can been seen upon examination of this table that about twothirds of the group transferred to the main campus after having completed six quarters at a branch campus. This seems to indicate that this was the most common pattern of transfer, and so this group was selected as the experimental group.

When the above procedure had been completed, the experimental group consisted of 137 students. The students in this group had all completed six quarters at a branch campus by the end of spring quarter 1966 and had then enrolled on the main campus at the beginning of autumn quarter 1966.

After selecting the experimental group, an equal number of native main campus students were selected as the control group. A list of those students enrolled on the main campus during autumn quarter 1966 was used as an initial point for selection. All students who had completed six quarters of academic work and who had a class rank of II or III were considered possible subjects. A random sample was then taken

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from this total group and 145 students were selected. Of this total, eight students were deleted because they were found to have transferred to The Ohio State University from another institution at some point during their first two years. The final control group consisted of 137 students who had completed six quarters on the main campus by the end of spring quarter 1966.

The final sample selected for examination in this study totaled 274 students. Half of this sample had attended a branch campus for six quarters, the other half had attended the main campus for six quarters. The total group was enrolled on the main campus at the beginning of autumn quarter 1966.

## Procedure

Following the selection of a total sample of 274 students, additional data were collected to allow for control for the following three variables; 1) sex, 2) college curriculum, and 3) measured academic ability.

The sex of each student and the college that he was enrolled in at the beginning of the autumn quarter 1966 were noted from the student fee lists for that year. The branch campus group contained 76 males and 61 females; the main campus group contained 77 males and 60 females. Table #3 presents a summary of the data regarding college enrollment for the two groups.

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TABLE	3
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Campus Trans	fer Students	and Native Mai	n Campus Stu	dents
	Main Car	npus Group	Branch C	ampus Group
r -	Number of		Number of	
College	Students	% of Total	Students	🔏 of Total
Agriculture	7	5.1	7	5.1
Arts & Science	25	18.2	34	24.8
Engineering	37	27.0	9	6.6
Education	43	32.1	60	43.8
Commerce	13	8.9	16	11.9
Biological Sc.	1	•7	2	1.4
Optometry	1	•7	2	1.4
Home Economics	5	3.7	3	2.2
Social Work	2	1.4	2	1.4
Nursing & Allied Medical Sc.	3	2.2	2	1.4

College Enrollment of a Selected Group of Branch

In order to control for the ability level of these students, data were collected regarding their scores on the American College Test (ACT) and their rank by thirds in their high school graduating class. Previous research had shown that the combination of these two variables produces the most reliable prediction formula for academic success. Thus it was felt that by controlling for these two factors, the ability level of the sample of students could be made comparable. Raw ACT composit scores and the rank by thirds in the high school graduating class were used for this purpose. Since these data represented one of the secondary concerns of this study, means and standard deviations were computed for each of these two variables. These data will be presented in the following chapter.

Grade point averages were then recorded for each student at three different points in time: 1) the end of autumn quarter 1966, 2) the

-22end of winter quarter 1967, and 3) the end of spring quarter 1967. For each of these quarters, the number of academic credit hours that a studdent had completed and the total number of quality points that he had received for those hours were noted. Since the major purpose of this study was to compare academic performance when both groups reached the same environment, i.e. the main campus, previous performance was considered irrelevant. Accumulative grade point averages earned prior to autumn quarter 1966 were therefore not included for analysis. Not considering the cumulative grade point average prior to the 1966 autumn quarter eliminated the possible differences between the two groups that might have occurred because of variations in course offerings between the main and branch campuses. The data that were collected allowed comparisons to be made for each quarter during the 1966-67 academic year, as well as a cumulative grade point comparison for the total three quarters.

## Treatment of the Data

The null hypothesis being tested in this study was formulated as follows:

Even when control is made for the following three variables: 1) sex, 2) college curriculum, and 3) measured ability level, the academic performance of students who transfer to the main campus from the branch campuses will not equal the academic performance of native main campus students.

To test this hypothesis an analysis of the grade point averages earned by both groups of students was made. In order to insure that the academic experience was the only independent variable influencing the academic performance, control was made for the three variables stated in the hypothesis. Because of the difficulty involved in controlling for these variables by direct methods such as matching, statistical control was employed.

Winer (1962) defines statistical control as "control achieved by measuring one or more concomitant variables in addition to the variate of primary interest." (p. 578) The statistical means of control used in this study was an analysis of covariance. The three variables mentioned above were treated as concomitant variables, while the primary variable under examination was the grade point average. Before employing the analysis of covariance, the assumptions of homogeneity of variance and regression were satisfied. The analysis of covariance was administered to the data at three different time periods and also upon the cumulative grade point averages for the year. F-tests were applied at each point to determine significance.

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RESULTS AND DISCUSSION

Results

This study was primarily undertaken to test the following hypothesis:

Even when control is made for the following three variables: 1) sex, 2) college curriculum, and 3) measured ability level, the academic performance of students who transfer to the main campus from the branch campuses will hot equal the academic performance of native main campus students.

Two groups (branch campus transfer students and native main campus students) were compared in order to determine whether or not a significant difference occurred between their levels of academic performance. An analysis of covariance was employed to control statistically for the above three variables stated in the hypothesis. Data in the form of grade point averages were statistically treated at three different points in time: 1) autumn quarter 1966, 2) winter quarter 1967, and 3) spring quarter 1967. An accumulative grade point average for the total three quarters was also treated. The analysis of covariance allowed an F-test for significance of difference to be performed; inspection of the data was then required to determine the direction of the difference. Tables 4 through 7 present the results of the analysis of covariance.. Sub-tables labeled 4a through 7a are used to show the mean and adjusted mean grade point averages for each quarter.

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Analy	TA ysis of ( Autumn ( N	ABLE 4 Covariance Ta Quarter 1966 = 270*	able,		
Source	df	SS	ms	F	
Academic Experience	1	4.441	4.441	9.189**	le yf e
Error	265	128.072	.483		

\*Four of the original subjects included in the Branch Campus Transfer group were rejected in the analysis because of insufficient data.

		Table 4a
	Mean and Adju Averages.	isted Mean Grade Point Autumn Quarter 1966
	Mean	Adjusted Mean
Main	2.661	2.655
Branch	2.392	2,396

# TABLE 5

••

Analysis of Covariance Table, Winter Quarter 1967 N = 249

Source	df	ss	ms	· F
Academic Experience	1	2.276	2.276	6.851**
Error	244	81.062	•332	

Table 5a Mean and Adjusted Mean Grade Point Averages, Winter Quarter 1967

	Mean	Adjusted Mean
Main	2.750	2.749
Branch	2.554	2.533

TABLE	6
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Analysis of Covariance Táble, Spring Quarter 1967 N = 240					
Source	df	SS	tr MS	F	
Academic Experience	1	1.691	1.691	3.315	
Error	235	114.84	•510		

Table 6a Mean and Adjusted Mean Grāde Point Averages, Spring Quarter 1967

	Mean	Adjusted Mean
Main	2.743	2.739
Branch	2.566	2.571

# TABLE 7

Analysis of Covariance Table, Academic Year 1966-67 N = 238				
Source	df	SS	ms	F
Academic Experience	1	3.297	3.297	13.687**
Error	233	56.126	.241	

Table 7a					
Mean	and	Adjusted	Mean	Grade	Point
Aver	ages	Academi	ic Yea	ar 1966	5-67

	Mean	Adjusted Mean
Main	2.777	2.773
Branch	2.530	2.544

Tables 4, 5 and 7 show that significant differences were found in the grade point averages earned by branch campus transfer students and native main campus students during the autumn and winter quarters and for the academic year as a whole. In each case, the native main campus group performed at a level higher than did the branch campus transfer group. While a visible difference in mean grade point averages can be seen in Table 6, the difference for the spring quarter was not found statistically significant.

In order to illustrate the pattern that the grade point averages tended to assume over time, figure #1 was constructed.

#### FIGURE 1



Figure #1 shows that while differences do occur between the grade point averages earned by the branch campus transfer students and the native main campus students, these differences tend to decrease over time. A difference of 0.259 grade points was found for the autumn quarter 1966. By the spring quarter 1967 however, this difference

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had decreased to 0.168 grade points.

In addition to the analysis of grade point averages that is presented, this study provided descriptive data that are relevant to an examination of branch campus students when they are compared to native main campus students. It was possible to extract values used in the analysis of covariance and compute means and standard deviations. These values represented the amount of variance due to the variables under control and therefore can be used to describe the two groups compared in this study. Table 8 provides a summary of this data.

#### TABLE 8

N = 238				
Variable	Main		Branch	
	Mean	St. Dev.	Mean	St. Dev.
sex	•545	• 500	• 560	•498
ACT comp. scores	26.431	10.429	24.181	12.735
high school rank	1.626	1.866	1.483	1.240
college	2.488	1.874	2.733	1.726

Means and Standard Deviations for the Variables Controlled in the Analysis of Covariance: Native Main Campus vs. Branch Campus Transfer Groups N = 238

The values presented in Table 8 represent a summary of the data collected throughout the three quarters that were studied. It was found however, that both groups decreased in size as the academic year progressed. The native main campus group dropped from an initial 137 students to 126 students by the end of the spring quarter. This represented an attrition rate of 8.8%. From the original group of 134 that were included for analysis in the branch campus group, 117 remained by

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the end of spring quarter 1967. This represented an attrition rate of 12.7%.

Because of the attrition that occurred in the two groups during the academic year, the values in Table 8 did not remain stable for each point of analysis. For each time that an analysis of covariance was applied to the sample, the values assigned to the controlling variables changed as a result of students withdrawing from the university. The variable that showed the greatest amount of variance was the ACT composit scores. The following table presents a summary of the changes in the mean scores throughout the academic year.

#### TABLE 9

Quarterly Mean ACT Composit Scores:			
	Native Main Campus vs. Branch Campu	s Transfer Groups	
	Mean ACT Score	Mean ACT Score	
Quarter	r Main Campus Group	Branch Transfer Group	
Autumn	27.635	23.56	
Winter	26.93	23.95	
Spring	26.37	24.16	

An inverse relationship seems to emerge upon examination of this table. The ACT composit scores for the branch campus transfer group tends to increase with time, while the mean ACT composit scores for the native main campus group decreases with time. Figure #2 provides an illustration of this relationship.

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FIGURE 2

Comparison of Mean ACT Composit Scores Over Time: Branch Campus Transfer Students vs. Native Main Campus Students Mean ACT



#### Discussion

The primary aspect of the branch campus transfer process under examination in this study was the academic success of the transfer student when he reached the main campus. By comparing the grade point averages earned by a group of branch campus transfers with the grade point averages earned by a group of native main campus students, this study shows that the branch campus transfer students tend to perform at a level below that achieved by the main campus students. An analysis of covariance reveals significant differences in the grade point averages for three out of the four points in time that were examined. As a result of the significance found, the null hypothesis stated at the outset of this study cannot be rejected. Before one can make generalizations concerning these results however, the pattern of the difference must be noted.

While a real difference exists between the academic performance

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and the second second at the later of the second of branch campus transfer students and native main campus students, the and the second states and the second pattern that this difference assumes over time is important to consider. By looking at Figure 1, it can be seen that although a wide difference exists during the first quarter after transfer, this difference tends to decrease with time. By the end of the spring quarter. the difference no longer remains statistically significant. While the cumulative grade point averages for the total academic year are significantly higher for the native students, one might predict that this difference would become less by the end of the following year. These results seem to support the concept of "transfer shock" that has been found in similar studies of junior college students. The initial gap in the grade point averages earned by the two groups could be indicative of an adjustment period that transfer students experience when they first come to the main campus. Faced with the increased size and complexity of the main campus and the new experience of on-campus residence, the branch campus transfer student may find adjustment difficult. The lower level of academic performance exhibited by the branch transfer group could be a reflection of this difficulty. The gradual improvement in the grade point averages for this group seems to indicate that this initial difficulty decreases with time.

In addition to the difference found between the academic performance of branch campus transfer students and native main campus students, this study revealed differences in both the attrition rates and ability levels measured by the ACT composit score and high school rank of these two groups.

The attrition rate found for the group of branch campus transfer

students was 12.7% as compared to the attrition rate of 8.8% for the native main campus students. The difference between these two rates tends to support the notion that two-year transfer students do not persist toward their degrees at a level equal to that of four-year native students. While no real conclusions can be drawn from this finding, it might tend to reflect a difference in the degree of motivation that exists between the two groups. If one can assume that an equal number of students from both groups withdraw from the university because of academic difficulties, the difference that exists in the attrition rates might reflect a difference in motivation.

In light of the above findings, it would seem as though branch campus transfer students closely resemble junior college transfer students. The fact that they tend to experience "transfer shock" immediately following transfer and that they tend to have higher attrition rates and lower ability levels than native main campus students, support the existing research concerning junior college transfer students.

It is interesting to note the difference found in the measured academic ability levels of the two groups of students that were examined. The findings of this study tend to support previous research that has found that less able students attend branch or two-year colleges before going on to four-year institutions. It further illustrates the importance of controlling for this variable in any study of the transfer student when they are being compared to native four-year students.

An interesting relationship becomes apparent when one combines the data on ACT composit scores with the grade point averages. It can be

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seen that as the grade point averages for the main campus students improved over time, the mean ACT scores for this group decreased. The branch campus transfer group also exhibited a gradual improvement in grade point averages. This improvement however, was accompanied by an increase in the mean ACT scores. This would tend to indicate that the less able students (as measured by the ACT scores) in the transfer group withdrew during the course of the academic year, leaving the more able students to continue toward their degrees. This pattern seems to be both reasonable and predictable. The same pattern does not hold for the group of native main campus students. The decrease in their mean ACT scores seems to indicate that the more able students withdrew during the academic year, leaving the poorer students to continue. The significance of this relationship is difficult to assess; however, it is interesting to note.

The data collected on the high school ranks of the students included in this study are somewhat confusing to assess. Table 8 shows that the two variables initially used to measure academic ability are somewhat unrelated. While the ACT scores for the main campus group exceed those of the branch campus group, the mean high school ranks are lower. (1.626 as compared to 1.424) Previous research has found that the high school rank usually provides a reliable predictor of academic success. The fact that the high school rank was not significantly related to the ACT scores in this study appears somewhat contradictory. Two factors seem apparent that might account for these differences. Neither the size of the high school graduating class nor the caliber of the school were examined in this study. It might be hypothesized

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-34that these additional variables could have a great deal of effect upon the accuracy of the high school rank as a predictor of academic success. If they had been taken into account in this study, the high school rank might have yielded more relevant data.

# Chapter V

#### SUMMARY AND CONCLUSIONS

#### Summary

The primary purpose of this study was to examine the academic performance of students who transfer from the branch campuses of The Ohio State University to the main campus. As an outgrowth of this primary purpose, three secondary goals were established:

- 1. to provide information concerning the nature of the branch-to-main campus transfer process,
- 2. to determine the ability levels of branch campus students who transfer to the main campus, and
- 3. to examine the attrition rates of branch campus transfer students.

In order to determine the level of academic performance of the branch campus students when they reach the main campus, two groups were selected for comparison. The experimental group consisted of students who had attended a branch campus for six quarters and had then transferred to the main campus at the beginning of the autumn quarter 1966. The control group consisted of an equal number of students who had completed six quarters of academic work on the main campus and were enrolled for the autumn quarter 1966. These two groups were then examined for three quarters during the academic year 1966-67. Analysis of the mean grade point averages earned by both groups was made at the end of each quarter and at the end of the year. Statistical control was made for possible confounding variables in order to insure that the

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academic experience (main vs. branch) was the primary factor affecting the performance of the two groups. The variables placed under control were: 1) sex, 2) college curriculum, and 3) measured academic ability level. Statistical control was achieved through the use of an analysis of covariance and significance was determined by applying F-tests of difference.

The procedures used to determine the academic performance of the branch campus student, facilitated the examination of the secondary goals of the study. The nature of the transfer process was revealed through the selection of the sample, ability levels were compared in the statistical treatment of the data, and attrition rates were disclosed at each point of analysis.

#### Conclusions

Within the limitations of this study several conclusions regarding the Ohio State University branch campus students who transfer to the main campus seem warranted.

In terms of academic performance, the branch campus transfer students tend to perform below the level that native main campus students perform. Even when control is made for variables that tend to affect academic achievement, differences occur in the mean grade point averages earned by both groups.

The degree of the difference that occurs in academic performance between branch campus transfer students and native main campus students tends to decrease over time. The greatest discrepancy found in this study occurred at the end of the first quarter following the branch campus students' transfer to the main campus. The least discrepancy

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was found at the end of the third quarter; the transfer students having achieved a mean grade point average that more closely approximated that earned by the native main campus students. This pattern of difference tends to support the concept of "transfer shock."

In spite of the tendency for the branch campus transfer students to improve their grade point averages following the initial quarter after transfer, they tend to be handicapped by the lower level of their earlier performance. Their cumulative grade point averages remain significantly lower than native students at the end of one year.

Branch campus students who transfer to the main campus tend to have lower measured ability levels than do native main campus students.

Attrition rates for branch campus students who transfer to the main campus tend to exceed the rates of native main campus students.

Branch campus students who transfer to the main campus of the Ohio State University share many of the same characteristics with students who transfer to four-year institutions from junior colleges.

The majority of students who transfer from the branch campuses to the main campus tend to do so after having completed six academic quarters at the branch campus. The numbers transferring from the different branch campuses at the end of six quarters varies from branch to branch. While the major portion of transfer students tend to enter either the College of Education or the College of Arts and Sciences, all college curriculums on the main campus tend to receive branch campus transfers.

#### Limitations

There are two limitations inherent in the design of this study

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that should be noted when considering the above conclusions.

The first limitation concerns the selection of the variables that were controlled in the study. In any study of the academic achievement of students, arbitrary decisions must be made regarding those variables that will be placed under control. The decision to select the variables in this study was made on the basis of previous research findings and availability of data. As a result, many variables that might have had a significant affect upon the branch campus transfer students' academic performance may have been neglected.

The second limitation that should be mentioned concerns the method used for examination of the branch campus transfer group. Rather than look at each one of the four branch campuses separately when comparing transfer students to native students, the total group of students from the branch campuses were treated collectively. In doing this an assumption of homogeneity was made regarding the four branch campuses. In actuality, such an assumption might be proven false, and differences inherent in these campuses could have been overlooked in the results of this study.

## Implications

This study was conducted in an effort to gain a clearer picture of the branch campus-main campus system that exists on The Ohio State University. Many have raised questions concerning this system, and yet little research has been conducted. While this study has helped to answer a few of these questions, it has posed a great deal more. The following list presents areas that warrant further examination.

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- The characteristics of students who attend the branch campuses. How do branch campus students compare with main campus students in terms of; a) academic ability,
  b) motivation, c) personality characteristics, d) family background, e) reasons for attending college, f) career interests, etc.
- 2. The patterns of academic experience that the branch campus students tend to follow. Of those that do not transfer to the main campus, how many continue to pursue degrees elsewhere? If students do transfer to other four-year institutions, whore do they go? If students do not continue their education, where do they go?
- 3. The success of the branch campus transfer students after one year on the main campus. Do these students actually catch up with the native students? How many of those that transfer actually receive a degree? How long does it take for them to complete their degrees?
- 4. The perceptions that branch campus transfer students have of both the branch campus and the main campus.
- 5. The adequacy of the preparation that the branch campuses give to their students. Are the academic experiences on these campuses equal to those on the main campus?

In addition to an implication for further research this study tends to indicate a need on the part of the university to look more closely at the students who come to the main campus from the branch campuses. This study has shown that these students tend to experience

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some kind of difficulty when they begin their academic work on the main campus. Whether this difficulty is a result of inadequate preparation while on the branch campuses or the "transfer shock" of coming to the main campus, attention seems in order.

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