

THE EFFECT OF THE RECEIPT OF A SCHOLARSHIP
ON ACADEMIC ACHIEVEMENT, PERSISTENCE TOWARD GRADUATION,
AND RATE OF PROGRESS

by 500

JAMES ALVA UPHAM

B. S., Kansas State University, 1943

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

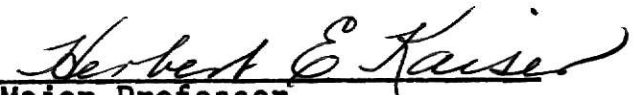
MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1969

Approved by:


Major Professor

LD
2668
R4
1969
U6
C12

ii

ACKNOWLEDGMENTS

Sincere appreciation is hereby expressed for aid and encouragement given by the late Harold Kennedy, former Director of the Aids, Awards, and Veterans' Services Office. Appreciation is also given to Dr. Herbert Kaiser for advice and counsel, to Dr. Donald Hoyt for aid with statistical interpretation, and to my wife, Betty, for assistance in editing and typing the manuscript.

TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM AND DEFINITIONS OF TERMS USED . . .	1
The Problem	1
Statement of the problem	1
Hypotheses	1
Importance of the study	2
Definition of Terms	3
Scholarships	3
Academic achievement	3
Drop-out	3
Rate of progress	3
Like students	3
ACT composite score	3
High school grade point average	4
State of Kansas Scholarship	4
II. REVIEW OF LITERATURE	5
Academic Achievement	6
Persistence toward Graduation	8
III. METHOD AND DISCUSSION OF RESULTS	11
Method	11
Discussion of Results	14
Academic achievement	14
Persistence toward graduation	18

CHAPTER	PAGE
Rate of progress	23
Possibilities for future study	23
IV. SUMMARY	26
LIST OF REFERENCES	30

CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

Financial aid for college students is becoming increasingly important because of a concerted effort by the leaders of our society to help the disadvantaged through raising their educational and cultural level. Scholarships, being gift aid, are a vital part of financial aid packages for the disadvantaged since without a considerable portion of their aid in gift form, their debt load could become unacceptably burdensome before graduation. Therefore, a study of possible motivational effects of receipt of a scholarship on the recipient seemed apropos.

I. THE PROBLEM

Statement of the problem. The purpose of the study was to determine if the receipt of a scholarship had a significant effect on academic achievement, persistence toward graduation, and rate of progress of the recipient as compared to like students who did not receive scholarships.

Hypotheses. The following hypotheses were tested.

1. There is no significant difference between the grade point average of a scholarship recipient and that of a like student who did not receive a scholarship.

2. There is no significant difference in number of hours completed each academic year between a scholarship recipient and a like student who did not receive a scholarship.

3. There is no significant difference between persistence toward graduation of a scholarship recipient and that of a like student who did not receive a scholarship.

The hypotheses will be accepted at the 5 per cent confidence level.

Importance of the study. It is generally accepted that scholarship aid has motivational value in inducing prospective students to continue their education. There is less agreement on the motivational effect of scholarships on students after they have begun their higher education. If a scholarship does motivate a student to higher academic performance and greater persistence toward completion of requirements for a degree, this fact would be of great value when visiting with prospective scholarship donors and in counseling prospective students. With spiraling costs in education and rising interest rates from lending institutions, it is vital that gift aid such as scholarships and grants in aid be available to students in increasing amounts. In fact, without increased

gift aid the present attempt to bring the disadvantaged element of our people into the mainstream of society by raising their educational level may well be jeopardized.

II. DEFINITION OF TERMS

Scholarships. Awards of gift money based on academic talent and financial need.

Academic achievement. Each student's cumulative grade point average at the end of each year covered by the study.

Drop-out. A student who has discontinued his formal education before graduation.

Rate of progress. Cumulative number of hours officially completed at the end of each academic year.

Like students. Students of the same sex, enrolled in the same college and class, whose American College Testing Company score is within plus or minus one of each other, and whose high school grade point average is within plus or minus .250 for high school subjects covered by the American College Testing (ACT) test.

ACT composite score. The calculated score which is the mean of the raw scores received in English,

mathematics, social science, and natural science on the American College Test (ACT).

High school grade point average. The mean of the grades for high school subjects of English, mathematics, social science, and natural science as reported by students to the American College Testing Company (ACT) at the time the ACT test was taken.

State of Kansas Scholarship. A scholarship program established and financed by the Kansas Legislature in the spring of 1963. It is open to all Kansas high school graduates each year. Recipients are, in general, the two hundred neediest students from among eight hundred who had the highest academic scores on a qualifying test.

CHAPTER II

REVIEW OF LITERATURE

Early reading on the general subject of scholarships lead to the conviction that performance patterns are established rather early in life and that it was unlikely that receipt of a scholarship would exert an influence strong enough to change such established patterns. Holland and Nichols¹ stated that evidence suggests that high school achievement and achievement in college are a function of a common achievement syndrome or disposition and that past performance predicts future performance. However, since they also say that a student's achievement is positively associated with his interests, goals, and self-conceptions, it may be postulated that the honor associated with receipt of a scholarship might raise a student's self-conception to a degree that would be reflected in increased performance.

¹John L. Holland and Robert C. Nichols, "Prediction of Academic and Extracurricular Achievement in College," Journal of Educational Psychology, 55:55-65, February, 1964.

A study that combined the motivational effect of scholarships in the areas of academic achievement, drop-out rate or persistence, and rate of progress could not be located. However, several studies in two of the areas listed above were found.

I. ACADEMIC ACHIEVEMENT

The most complete and definitive study in the area of scholarship motivation toward academic achievement was done by Clark, Wright and Parker² at Brigham Young University. They revised the procedure that had been followed in awarding scholarships to provide increased motivation toward a higher grade point average. To accomplish this they awarded scholarships on a quarterly basis, renewable each quarter to those students who maintained a 2.50 (3.00 = A) grade point average. Scholarship recipients were matched with a control group on the basis of high school grades and American College Entrance Test scores to test the following hypothesis: no significant difference exists between the mean grade point average of the students who are recipients of

²S. G. Clark, E. W. Wright, and C. A. Parker, "Do Renewable Scholarships Promote Higher Grades?" Personnel and Guidance Journal, 35:302-306, January, 1957.

scholarships and the mean grade point average of non-scholarship students. Results showed that scholarship recipients had significantly higher grades at the .001 confidence level than did the control group. Clark, Wright, and Parker concluded that this study seems to indicate that sufficient additional extrinsic motivation can be produced in scholarship students through the rewarding effect of a renewable type scholarship to produce a significant change in effort which results in significantly higher college grades. Studies with non-renewable scholarships had less conclusive results. Williamson and Feder at the University of Denver in a matched pair study concluded: "The differences in achievement between scholarship and matched non-scholarship groups are not statistically significant. However, all the differences favor the scholarship group."³ For thirteen years Heidman⁴ followed the progress of all freshman scholarship winners at the University of Wisconsin. He found that the scholastic record of scholarship winners in terms of grade point average was 33.1 per cent better than the average of

³B. Lois Williamson and Daniel B. Feder, "Scholarship Winners--How They Rate on Campus and in Class," Personnel and Guidance Journal, 31:238, January, 1953.

⁴Kenneth H. Heidman, "Collegiate Success of High School Scholarship Winners," Agricultural Education Magazine, 21:254-55, May, 1949.

the university student body. It is acknowledged, however, that the scholarship winners were a select group and almost certainly had higher natural ability than the university average. Eaton⁵ at the University of Indiana and Holmes⁶ at Syracuse in similar studies reached similar conclusions.

II. PERSISTENCE TOWARD GRADUATION

The research data in the area of persistence toward graduation as measured by comparing the drop-out rate of the scholarship recipients with non-scholarship students was meager. An interesting study by Parker and Clark⁷ indicated that receipt of a scholarship exerted little motivational power in causing a prospective student to enter a particular university. Over 82 per cent of the scholarship students attending Brigham Young University during the period of the study stated that

⁵Merrill T. Eaton, "A Study of the Achievement of Freshmen Students Holding County Scholarships," Bulletin of University of Indiana School of Education, 18:44-54, September, 1942.

⁶Charles H. Holmes, "Are Scholarship Holders Making the Grade?" College and University, 39:301-308, Spring, 1964.

⁷C. A. Parker and S. G. Clark, "Do Scholarships Influence College Attendance?" Journal of Higher Education, 27:147-50, March, 1956.

they would have entered Brigham Young University even if they had not been offered a scholarship. The present study, however, was concerned only with the possible influence of scholarships in motivating recipients to stay in school until completion of an undergraduate degree. Williamson and Feder,⁸ in the study mentioned earlier, attempted to determine the differential extent, if any, to which scholarship students continued in college to the point of graduation. Their findings, in a matched pair study, was summed up with the following statement, "Although the mortality of scholarship and non-scholarship students followed the same general pattern, a higher percentage of scholarship students achieved baccalaureate degrees than did non-scholarship students."⁹ Heidman¹⁰ found at the University of Wisconsin that 77 per cent of all scholarship winners over the thirteen years covered by the study received a degree compared to only 29.6 per cent of all entering freshmen during the same period. Holmes,¹¹ in a contradictory finding, concluded after

⁸Williamson and Feder, op. cit., p. 239.

⁹Ibid.

¹⁰Heidman, loc. cit.

¹¹Holmes, loc. cit.

a two-year study at Syracuse University that attrition rate among all scholarship holders was slightly higher than that of non-scholarship students.

In the third area of study, that relating to the effect of receipt of a scholarship on the student's rate of progress, the writer, after an exhaustive search, could find no pertinent literature.

CHAPTER III

METHOD AND DISCUSSION OF RESULTS

I. METHOD

The study was begun by compiling a total sample of all entering freshmen at Kansas State University who were recipients of a State of Kansas Scholarship for academic years 1963-1964, 1964-1965, and 1965-1966. These students were matched with non-scholarship students who were of the same sex, who were enrolled in the same college and class, whose ACT composite test score was within plus or minus one of each other, and whose high school grade point average was within plus or minus .250 of each other in the subjects covered by the ACT test. After all possible matches were made, there were forty-two matched pairs in the 1963-1964 class, forty-eight matched pairs in the 1964-1965 class, and forty-five matched pairs in the 1965-1966 class.

Work sheets were prepared and the cumulative grade point average and number of hours completed, as shown on university records, were entered for each student at the end of each academic year. For each student who did not complete an academic year or who did not begin the subsequent year, a check was made at the Kansas State University

Admissions Office to determine if he had terminated his education or had transferred to another institution. If one member of a matched pair left Kansas State University, the pair was dropped from consideration as to grade point average and hours completed, but data was continued on the other member so that persistence toward graduation could be analyzed for the full period of the study. For those pairs in which both members completed an academic year, the difference in grade point average between the scholarship recipient and the matching student was noted. Then the mean grade point average of all scholarship recipients and the mean grade point average of all matching students were determined for each of their four years of school. The difference in grade point average between the scholarship and non-scholarship students was then compared for significance through use of the t-test. The formula¹² used for calculating the t value for matched groups was as follows:

$$t = \frac{\frac{\sum D}{N - 1}}{\sqrt{\frac{N \cdot \sum D^2 - (\sum D)^2}{N - 1}}}$$

In a similar fashion, the cumulative hours completed each year were totaled for those pairs for which

¹²George A. Ferguson, Statistical Analysis in Psychology and Education (New York: McGraw-Hill, 1966, p. 170.

both members remained in school. Since the difference in hours completed by scholarship recipients and non-scholarship students was quite small and since there was no discernible tendency of either group to complete more hours, it was decided that a test of significance would be meaningless.

A different procedure was followed in organizing results in the area of persistence toward graduation. All students who did not complete an academic year were noted and the date of termination determined. Records in the Office of Aids, Awards, and Veterans' Services and in the Office of Admissions and Records were searched to discover the reason for withdrawal. Those students who terminated their education at Kansas State University for any reason other than transfer to another educational institution were classed as drop-outs. Those who had transcripts of grades and other records sent to another institution were listed as transfer students. The students who remained had completed the four years of the study and were marked "completed".

A count was made of the number of scholarship recipients who dropped out and those who transferred from Kansas State University during each of the four years of undergraduate study. This was done for all three classes which were being considered in this study. The same

procedure was followed for non-scholarship students. A chi square test was then run to see if the difference between scholarship and non-scholarship students was significant at the .05 level.

II. DISCUSSION OF RESULTS

Scholarship recipients were matched as closely as considered practical with non-scholarship students. However, the need factor in the selection of State of Kansas Scholarship recipients may have resulted in a biased sample. Need was a determining factor in selecting recipients but was not considered for the matching students due to lack of information. This could have resulted in the scholarship recipient being from a lower socio-economic level than the student with whom he was matched. That in turn may or may not have affected basic educational motivation.

Academic achievement. Table I was prepared to illustrate the differences in grade point average between scholarship recipients and matching students. For the 1963-1964 class, the grade point average of non-scholarship students was uniformly higher than that of scholarship recipients. For the other two classes, the scholarship recipients were, with one exception, consistently higher. When tested for significance with the t-test, it was found

A COMPARISON OF ACADEMIC ACHIEVEMENT OF SCHOLARSHIP
RECIPIENTS AND MATCHED NON-SCHOLARSHIP STUDENTS

1963 - 1964 Class				
	Fresh.Yr.	Soph.Yr.	Junior Yr.	Senior Yr.
No. Matched Pairs	41	30	24	21
Scholarship Recipients Mean GPA	2.594	2.741	2.752	2.825
Non-scholarship Student Mean GPA	<u>2.658</u>	<u>2.755</u>	<u>2.828</u>	<u>2.978</u>
Difference in GPA	-.063	-.014	-.066	-.153
t =	.47	.13	.59	1.37
t _{.05} =	2.02	2.05	2.07	2.09
1964 - 1965 Class				
	Fresh.Yr.	Soph.Yr.	Junior Yr.	Senior Yr.
No. Matched Pairs	48	35	29	28
Scholarship Recipients Mean GPA	2.930	2.990	3.020	3.080
Non-scholarship Student Mean GPA	<u>2.877</u>	<u>2.913</u>	<u>3.000</u>	<u>3.100</u>
Difference in GPA	.053	.077	.020	-.020
t =	.46	.70	.20	.60
t _{.05} =	2.01	2.03	2.05	2.05
1965 - 1966 Class				
	Fresh.Yr.	Soph.Yr.	Junior Yr.	Senior Yr.
No. Matched Pairs	45	35	31	25
Scholarship Recipients Mean GPA	3.054	3.115	3.030	3.142
Non-scholarship Student Mean GPA	<u>2.963</u>	<u>2.868</u>	<u>2.853</u>	<u>2.973</u>
Difference in GPA	.091	.247	.177	.169
t =	1.40	2.15	1.58	1.26
t _{.05} =	2.01	2.03	2.04	2.06

that the 1965-1966 recipients had, at the end of their sophomore year, grade point averages that were significantly higher at the .05 level than the students with whom they were matched. All other differences were not significant at the .05 level.

There is a possible explanation for the seeming contradiction in results between the class of 1963-1964 and the two subsequent classes. State of Kansas Scholarships were authorized by the Kansas Legislature late in the spring of 1963. It was thus well into the summer before the program was established. By that time school terms for Kansas high schools had ended and most high school seniors had graduated without being aware of the new scholarship program. In order to find recipients for the new scholarships, high school administrators were contacted and asked to submit names of worthy students. Thus the students were chosen and the scholarships awarded with very little recognition or publicity given. This conceivably could have resulted in a feeling on the part of the recipients that these particular scholarships were in some way inferior to the well-publicized scholarships awarded to their classmates earlier in the year. If such a reaction did occur, it would explain in part the negative results shown for the 1963-1964 class. By the time the 1964-1965 awards were made, the program had become recognized and the

recipients accepted a State of Kansas Scholarship as an honor. With the 1965-1966 class, this program may have achieved sufficient prestige to motivate the majority of the recipients to greater effort which was reflected in increased grade point averages.

The foregoing speculation is supported by the actual results. It will be noted that each succeeding class rated higher scholastically both in level of grade point average and in comparison with the matching non-scholarship students. For example, the yearly grade point average for scholarship recipients in the 1963-1964 class ranged from 2.592 to 2.825, and recipients were lower than matching students in each of the four years. In comparison, the 1965-1966 class ranged from 3.030 to 3.115 in grade point average, and the recipients achieved higher averages in each of the four years. The 1964-1965 class results fell between the other two.

There is another pattern in the results that point to some motivational power toward academic achievement in scholarships. The terms of the State of Kansas Scholarship provide for the renewal of the scholarship for an additional year if the student has earned satisfactory grades and still has financial need. This points to the possibility of an additional motivational impulse following the renewal of the scholarship for the sophomore year. Actual results seem to

support this conjecture. Table II gives a graphic comparison of the difference between grade point average of recipients and matching students. It will be noted that with every class the recipients rated highest in comparison with the non-scholarship students at the end of the sophomore year. Then, since, this scholarship could not be renewed beyond the sophomore year, the motivational effect seems to have become less pronounced and the grade point average increasingly poor when compared to the students with whom they were matched.

Persistence toward graduation. The tabulation of persistence toward graduation results give a different picture. In all three classes, more scholarship students completed the four years of the study. An examination of Table III reveals that 15 scholarship recipients dropped out of school before graduation as compared to 24 non-scholarship students. In contrast, it is seen from Table IV that 25 scholarship students transferred to other colleges while only 20 non-scholarship students transferred. It might be noted that this particular scholarship contained no motivational pressure to remain at Kansas State University for the sophomore year since it is honored at any accredited college or university in Kansas.

TABLE II

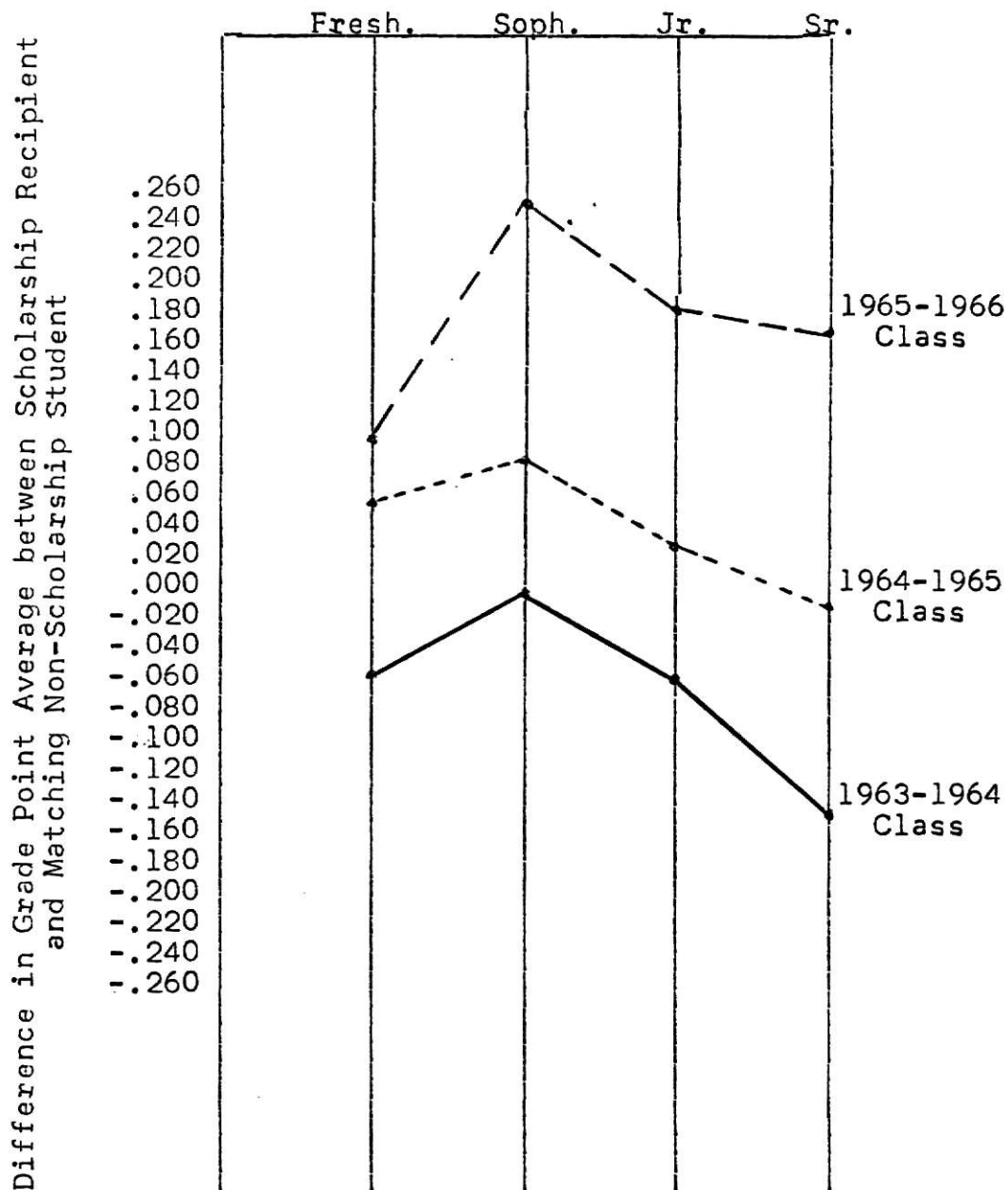


TABLE III

NUMBER OF STUDENTS WHO DROPPED OUT OF KANSAS STATE
UNIVERSITY DURING EACH YEAR OF THE STUDY

1963 - 1964 Class					
	Freshman	Sophomore	Junior	Senior	Total
Scholarship	0	0	2	0	2
Non-Scholarship	0	2	3	2	7
1964 - 1965 Class					
	Freshman	Sophomore	Junior	Senior	Total
Scholarship	0	4	2	1	7
Non-Scholarship	1	3	3	3	10
1965 - 1966 Class					
	Freshman	Sophomore	Junior	Senior	Total
Scholarship	0	3	2	1	6
Non-Scholarship	1	2	1	3	7
TOTAL					
Scholarship	0	7	6	2	15
Non-Scholarship	2	7	7	8	24

TABLE IV

NUMBER OF STUDENTS WHO TRANSFERRED FROM KANSAS STATE UNIVERSITY
TO OTHER COLLEGES DURING EACH YEAR OF THE STUDY

1963 - 1964 Class					
	Freshman	Sophomore	Junior	Senior	Total
Scholarship	1	5	3	3	12
Non-Scholarship	1	4	2	1	8
1964 - 1965 Class					
	Freshman	Sophomore	Junior	Senior	Total
Scholarship	1	3	2	1	7
Non-Scholarship	0	2	3	0	5
1965 - 1966 Class					
	Freshman	Sophomore	Junior	Senior	Total
Scholarship	0	3	2	1	6
Non-Scholarship	2	1	1	3	7
TOTALS					
Scholarship	2	11	7	5	25
Non-Scholarship	3	7	6	4	20

The above data was tested by the chi square test to determine if it could be reasonably assumed that the observed differences were greater than could be anticipated on the basis of chance factors. Results for the 1963-1964 class are shown.

TABLE V
PERSISTENCE TOWARD GRADUATION
1963 - 1964 CLASS

	Scholarship		Non-Scholarship		Total
	Expected	Observed	Expected	Observed	Observed
No. of Drop-outs	4.5	2	4.5	7	9
No. of Transfers	10.0	12	10.0	8	20
No. Who Persisted	69.5	70	69.5	69	139
Total	84	84	84	84	168

The chi square value of 3.586 was not significant and the null hypothesis was accepted. That is, no relationship between persistence and receiving a scholarship was established. Since the 1963-1964 class showed a larger difference between scholarship and non-scholarship students than either of the other classes, the null hypothesis was also accepted for the other two classes.

Rate of progress. The "hours completed" section of the study was included for several reasons. One was to see if the fact that a State of Kansas Scholar was required to pass at least twelve hours as a freshman in order to be eligible for renewal for his sophomore year induced him to carry a heavier load in his freshman year. Another reason for including this section was to be certain that grade point averages were not influenced by a tendency of one group or the other to complete more hours. Information presented in Table VI indicates that there was very little difference between the two groups. Such differences that do occur show no detectable pattern which favors one or the other so this section of the study was considered complete without statistical analysis.

Possibilities for future study. Plans are under consideration to continue this study in an attempt to answer several questions that have arisen. It should be enlightening to add the 1966-1967 class to the study as soon as they complete their four-year term of study. If comparative advantage in grade point average of the scholarship recipients continues to increase, the new class could have a superiority that would be significant each year, and the speculations listed earlier would then have additional statistical support.

A COMPARISON OF MEAN HOURS COMPLETED BY SCHOLARSHIP
RECIPIENTS AND NON-SCHOLARSHIP STUDENTS DURING
EACH YEAR OF THE STUDY

1963 - 1964 Class				
	Freshman	Sophomore	Junior	Senior
Scholarship	32.6	63.1	93.5	125.3
Non-Scholarship	<u>34.5</u>	<u>63.3</u>	<u>93.1</u>	<u>121.5</u>
	-1.9	-.2	.4	3.8
1964 - 1965 Class				
	Freshman	Sophomore	Junior	Senior
Scholarship	32.3	65.2	97.3	127.4
Non-Scholarship	<u>32.3</u>	<u>64.5</u>	<u>96.0</u>	<u>127.9</u>
	00.0	.7	1.3	- .5
1965 - 1966 Class				
	Freshman	Sophomore	Junior	Senior
Scholarship	33.4	65.5	96.2	128.3
Non-Scholarship	<u>33.3</u>	<u>65.0</u>	<u>96.2</u>	<u>127.6</u>
	.1	.5	00.0	000.7

Another question that warrants investigation is the seemingly high percentage of the students in the study who did not remain at Kansas State University until completion of degree requirements. As a group, these were superior students; yet, 86 of the 270 students who began failed to receive their degrees at this university. This is an attrition rate in excess of 30 per cent and seems high for students with proven capacity and high secondary school performance.

Finally, it would be interesting to re-examine the present data to see if there is a difference in motivational effect between male and female recipients. The thought occurs that girls might appreciate scholarships more than boys since their opportunities for other honors may be less frequent.

CHAPTER IV

SUMMARY

The purpose of the study was to determine if the receipt of a scholarship had a significant effect on academic achievement, persistence toward graduation, and rate of progress of the recipient as compared to a like student who did not receive a scholarship. A like student for matching purposes was a student of the same sex, enrolled in the same college and class, whose American College Test score was within plus or minus one of each other and whose high school grade point average was within plus or minus .250.

This study is of importance in providing information to aid high school counselors and administrators when advising students and to help university financial aid officers both in preparing aid packages for students and in attracting additional money to fund new or larger scholarships for the future.

Most of the limited literature available indicated that scholarship recipients had higher scholastic achievement and greater persistence toward graduation than non-recipients. The difference, however, was generally not statistically significant. There was no information on the effect of scholarships on rate of progress.

For this study, a total sample of students who had received State of Kansas Scholarships for the years 1963-1964, 1964-1965, and 1965-1966 was compiled. As many of these recipients as possible were matched with like students who had received no scholarships. Total hours completed, cumulative grade point average, drop-outs, and transfers were tabulated at the end of second semester each year. Differences between scholarship and non-scholarship students were compared and tested for significance.

It was found that, at the end of each of their four years of study, the 1963-1964 scholarship recipients had lower grade point averages than the matching non-scholarship students. The 1964-1965 recipients, however, were superior in grade point average to the matching students in each year except the senior year. None of the differences with these two classes were statistically significant at the .05 level. With the 1965-1966 class, the grade average of the recipients was consistently higher, and the difference was found to be statistically significant at the .05 level at the end the sophomore year. More of the scholarship recipients in each class completed all four years of the study and thus showed greater persistence toward graduation than the non-scholarship students. The difference, however,

was not statistically significant.

There are several trends in the results that merit special mention. Scholarship recipients in each class studied achieved higher grade point averages than the preceding class. The recipients also did better in comparison with the matching non-scholarship students with each succeeding class. This advantage was approaching statistical significance with the 1965-1966 class. Another trend was the tendency of scholarship recipients to rate highest scholastically in comparison with matched students at the end of the sophomore year. This could have been due to a motivational boost from the renewal of the scholarship for the sophomore year.

In the area of persistence toward graduation, it was found that more scholarship than non-scholarship students in each class completed the four years of the study. Again the difference was not statistically significant.

Plans are under consideration to continue the study for another year to see if the trend continues toward an increasing academic advantage for scholarship recipients over the students with whom they are matched. Other plans are being formulated to investigate the reasons for a seemingly excessive attrition rate for students of this caliber. Finally, it would be interesting to check on

sex differences in motivational power of scholarships. It is conceivable that girls might exhibit a greater appreciation of the honor of having received a scholarship by a higher scholastic performance since there may not be as large an opportunity for recognition for girls in high school sports and other areas. •

LIST OF REFERENCES

- Clark, S. G., E. W. Wright, and C. A. Parker. "Do Renewable Scholarships Promote Higher Grades?" Personnel and Guidance Journal, 35:302-306, January, 1957.
- Eaton, Merrill T. "A Study of the Achievement of Freshmen Students Holding County Scholarships," Bulletin of University of Indiana School of Education, 18:44-54, September, 1942.
- Ferguson, George A. Statistical Analysis in Psychology and Education (New York: McGraw-Hill, 1966), p. 170.
- Heidman, Kenneth H. "Collegiate Success of High School Scholarship Winners," Agricultural Education Magazine, 21:254-55, May, 1949.
- Holland, John L., and Robert C. Nichols. "Prediction of Academic and Extracurricular Achievement in College," Journal of Educational Psychology, 55:55-65, February, 1964.
- Holmes, Charles H. "Are Scholarship Holders Making the Grade?" College and University, 39:301-08, Spring, 1964.
- Parker, C. A., and S. G. Clark. "Do Scholarships Influence College Attendance?" Journal of Higher Education, 27:147-50, March, 1956.
- State Department of Public Instruction. Bulletin of Information, State of Kansas Scholarship Program, Topeka, Kansas, 1967.
- Williamson, B. Lois, and Daniel B. Feder. "Scholarship Winners--How They Rate on Campus and in Class," Personnel and Guidance Journal, 31:236-40, January, 1953.

THE EFFECT OF THE RECEIPT OF A SCHOLARSHIP
ON ACADEMIC ACHIEVEMENT, PERSISTENCE TOWARD
GRADUATION, AND RATE OF PROGRESS

by

JAMES ALVA UPHAM

B. S. Kansas State University 1943

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1969

THE EFFECT OF THE RECEIPT OF A SCHOLARSHIP
ON ACADEMIC ACHIEVEMENT, PERSISTENCE TOWARD GRADUATION,
AND RATE OF PROGRESS

The purpose of the study was to determine if the receipt of a scholarship had a significant effect on academic achievement, persistence toward graduation, and rate of progress of the recipient as compared to a like student who did not receive a scholarship. A like student for matching purposes was a student of the same sex, enrolled in the same college and class, whose American College Test score was within plus or minus one of each other and whose high school grade point average was within plus or minus .250.

This study is of importance in providing information to aid high school counselors and administrators when advising students and to help university financial aid officers both in preparing aid packages for students and in attracting additional money to fund new or larger scholarships for the future.

Most of the limited literature available indicated that scholarship recipients had higher scholastic achievement and greater persistence toward graduation than non-recipients. The difference, however, was generally not statistically significant. There was no information on the effect of scholarships on rate of progress.

For this study, a total sample of students who had received State of Kansas Scholarships for the years 1963-1964, 1964-1965, and 1965-1966 was compiled. These recipients were matched with like students who had received no scholarship. Total hours completed, cumulative grade point average, drop-outs, and transfers were tabulated at the end of second semester each year. Differences between scholarship and non-scholarship students were compared and tested for significance.

Scholarship recipients averaged higher both in grade point average and persistence toward graduation than non-scholarship students but the difference, with one exception, was not statistically significant. There was no trend or advantage for either group in the area of rate of progress.

Although differences, in general, were not significant statistically, several trends were worthy of note. Scholarship recipients in each class studied achieved higher grade point averages than the preceding class. The recipients also did better in comparison with the matching non-scholarship students with each succeeding class. This advantage was approaching, and in one case reached, statistical significance with the 1965-1966 class. Another trend was the tendency of scholarship recipients to rate highest scholastically in comparison

with matched students at the end of the sophomore year.

In the area of persistence toward graduation, it was found that more scholarship than non-scholarship students in each class completed the four years of the study. Again the difference was not statistically significant.

Plans are under consideration to continue the study for another year to see if the trend continues toward an increasing academic advantage for scholarship recipients over the students with whom they are matched. Other plans are being formulated to investigate the reasons for a seemingly excessive attrition rate for students of this caliber. Finally, it would be interesting to check on sex differences in motivational power of scholarships. It is conceivable that girls might exhibit a greater appreciation of the honor of having received a scholarship by a higher scholastic performance since there may not be as large an opportunity for recognition for girls in high school sports and other areas.