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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

A COMPARISON OF THE ACHIEVEMENT AND DROPOUT RATES OF A SELECTED GROUP OF FRESHMEN AT THE UNIVERSITY OF OKLAHOMA

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

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BY

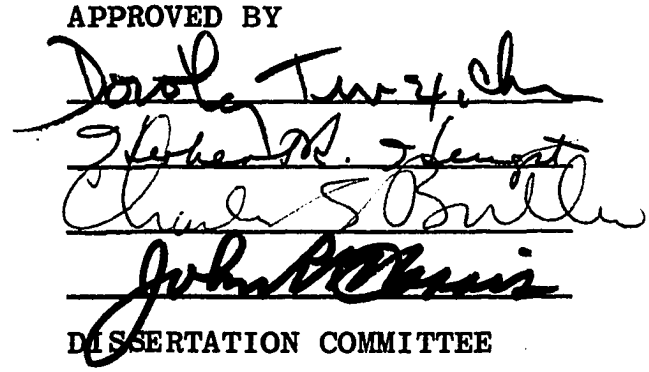
ANTHONY VAN BLUITT

Norman, Oklahoma

1973

A COMPARISON OF THE ACHIEVEMENT AND DROPOUT RATES
OF A SELECTED GROUP OF FRESHMEN
AT THE UNIVERSITY OF OKLAHOMA

APPROVED BY



DISSERTATION COMMITTEE

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

According to an unpublished study conducted by the University of Oklahoma Counseling Center in the years from 1962 to 1966, 35.2 percent of entering freshmen do not return to the University for their sophomore year, and only 22 percent of those entering actually graduate from the University within four years.[1] Of course, many may transfer to other institutions, but generally those who do not return as sophomores never return to college at all. The large percentage who never graduate give college admission officers the greatest cause for concern, since they represent the failures and shortcomings of the colleges' selection and retention procedures. The significance of these dropout figures increases when an individual considers that college populations have doubled in the past fifteen years, reaching approximately 6,900,000 in 1970, with a projected

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[1]University of Oklahoma. "Report No. 5, FIRST SEMESTER ACADEMIC PERFORMANCE" (University Guidance Service and University College, University of Oklahoma 1962 Freshmen Study). A Multilithed Report by the University of Oklahoma, 1962, in the University Guidance Service Collection of the University Archives in the Western History Collections of the University of Oklahoma Library.

enrollment of 10,200,000 by 1980.[2]

Most colleges and universities have given at least a cursory glance at their dropout problems. Not only can each dropout be regarded as somewhat of a failure for that institution's selection and retention policies, but the time, money and effort wasted in schooling dropouts is phenomenal.[3] Iffert concluded that college could reduce attrition rates simply by raising admission requirements with respect to the student's academic achievement record in secondary school.

On the other hand, Holland suggested that other factors should be considered in admission policies in addition to the student's academic potential.[4] He states:

> To rely on academic potential as the chief method of selection is in fact, then, an ineffective method for the selection or encouragement of a variety of student talents. Academic and non-academic accomplishments are independent divisions of human endeavor.

From an opposing point of view, Carlson and Wegner suggest that a concerted effort be made to lower attrition

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[2]Fred Crossland, "Politics and Policies in College Admission," Phi Delta Kappan, XLVI (March, 1965) pp. 299-303.

[3]R. E. Iffert, "Retention and Withdrawal of College Students," U.S. Dept. of H.E.W. Bulletin, No. 1 (Washington: U.S. Printing Office, 1957.

[4]John L. Holland, "Some New Dimensions of Service and Research in College Admissions," Phi Delta Kappan, ILVI (March, 1965), p. 322-24.

rates rather than raise admission standards.[5] They concluded that college administrators know very little about effective techniques which prevent students from becoming dropouts. They further suggested that institutions of higher education should reevaluate their own programs of teaching and their philosophies governing admissions and retention.

McConnell and Heist have shown that diversification of admission policies allows high school graduates of all levels of ability to gain admission to some institution.[6] At the same time, they indicated that some type of supportive services was needed to assist high-risk students through post secondary education.

For the most part, these studies seem to be suggesting two things; (1) Colleges and universities are beginning to reevaluate their recruiting and admission policies, especially as they pertain to minority group students. (2) Government supported programs of educational assistance seem to be the most logical solution to the problem of educating high-risk minority group students.

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[5]J. Spencer Carlson and K. W. Wegner, "The Poor Shall Always Be With Us: College Dropouts", Phi Delta Kappan, XLVI (March, 1965), p. 325-27.

[6]T. R. McConnell and Paul Heist, "The Diverse College Student Population," The American College, edited by Nevitt Sanford (New York: John Wiley and Sons, 1962), p. 232.

Statement of the Problem

The introductory material has presented several problems which have been encountered in attempting to educate minority and/or high-risk college students. While all of the problems mentioned in the preceding sections may be important to the overall educational process, the present study was limited in its scope and intensity by the following questions:

1. Is there a difference in the Grade-Point Averages (GPA's) of the Threshold '71 freshmen and the non-Threshold freshmen who had comparable composite ACT scores and who attended the University of Oklahoma during the same period of time (academic year 1971-72)?
2. Is there a difference in the dropout rates of freshmen Threshold '71 students and the dropout rates reported by the non-Threshold freshmen who were attending the University of Oklahoma during the same period of time?
3. Is there a difference in the Grade-Point Averages reported by the Threshold '71 students and the GPA's reported by the Threshold '70 students for comparable periods of time?
4. Is there a difference in the dropout rates of freshmen enrolled in the Threshold '71 Program and the dropout rates experienced by the Threshold '70 Program participants?

Statement of the Purposes/Objectives

The purpose or purposes implied and stated in this investigation may be satisfactorily relegated to three different time orientations--the ultimate or long range purposes, the intermediate or short range purposes, and the immediate purposes. Each of these statements of purpose is presented in the following sections.

Ultimate/Long Range Purpose of the Study

The ultimate or long range purpose of the study was to offer empirical evidence which would make a significant contribution to the methods and techniques to be used by post-secondary educational institutions in offering educational opportunities for high-risk students from minority groups who are receiving assistance from special services programs.

Intermediate/Short Range Purpose of the Study

The intermediate or short range purpose of the study was to offer empirical evidence which would show that certain educational programs such as the Threshold (Special Services) Program can and do make a significant contribution to the post-secondary educational experiences of high-risk students from minority groups. More specifically, the researcher was attempting to provide empirical evidence which would indicate that the high-risk minority students can and do perform satisfactorily in colleges and universities if they are given proper assistance and/or

encouragement by special educational programs such as the Threshold Program.

Immediate Purposes of the Study

The immediate and specific purposes of the present study were to show empirical evidence which would indicate that the Grade-Point Averages (GPA's) dropout rates, and biographical data reported by the Threshold '71 freshmen students enrolled at the University of Oklahoma were not significantly different than the GPA's and dropout rates reported by the Threshold '70 participants (during the preceding year) and a group of non-Threshold freshmen students who were enrolled in college for same or comparable periods of time and who had been matched with the Threshold '71 group on sex and ACT scores.

The Threshold Program at the University of Oklahoma was implemented in the Fall of 1970 and has received continuous, though limited funding since that time. The present study was an attempt to determine its effectiveness as measured by its ability to retain and facilitate the academic progress of its participants as compared to a non-Threshold population of students.

The researcher further attempted to show that the GPA's and dropout rates reported by the Threshold '71 freshmen were better than those reported by the Threshold '70 freshmen who attended the University of Oklahoma for a comparable period of time during the preceding academic year (1970-71).

CHAPTER II

REVIEW OF LITERATURE

Studies Related to the Mental Ability and Academic Achievement of Minority and High-Risk Students

Perhaps the classic article concerning the mental ability of minority groups was written by Jensen.[1] Based on evidence presented in his 1969 article and findings of two previous articles, Jensen concluded that since Blacks had developed into a superior physical specimen there was no reason to believe that Whites had not developed into a superior mental specimen.[2,3] The article went to great length to point out certain "superior" physical qualities of the Blacks and certain "superior" mental qualities of the Whites.

In an earlier study Bloom reported that environmental conditions can cause at least twenty (20) points variation in measurable IQ indices.[4] He further suggested that the

---

[1] Arthur R. Jensen, "How Much Can We Boost IQ and Scholastic Achievement?" Harvard Educational Review, Sp. 1969, 39 (2), p. 1-117

[2] A. R. Jensen, "Learning Abilities in Mexican-American and Anglo-American Children." California Journal of Educational Research, 1961, 12, p. 147-159.

[3] A. R. Jensen, "Social Class, Race and Genetics: Implications for Education." American Educational Research Journal, 1968, 5, p. 1-39.

[4] B. S. Bloom, "Testing Cognitive Ability and Achievement." N. L. Gage, (ed.), Handbook of Research on Teaching, 1963.

characteristic being measured by the IQ test can be altered the most by environmental influences at the time the particular characteristic is changing most rapidly. He states:

> A conservative estimate of the effect of extreme environments on intelligence is about 20 I.Q. points. This could mean the difference between a life in an institution for the feeble-minded or a productive life in society. It could mean the difference between a professional career and an occupation which is at the semi-skilled or unskilled level.

Bloom concluded the article by suggesting that steps be taken to alleviate extreme environmental deficiencies in the individual's development as soon as possible.

Studies concerning the academic achievement of minority and high-risk students are too numerous to mention. Some of the more classic studies have been conducted under loosely-structured conditions with equally unscientific interpretations. Such factors as the participants' developmental levels, age, sex, socioeconomic status, physical health, attitude, and past experiences have been only partially controlled. The end results of such studies have been questionable in some cases and doubtful in others. At the same time, the advent of a new generation of accountability experts, has caused federally-funded programs to assume a new dimension of measurement. These neo-behavioral scientists along with more sophisticated statistical techniques, such as the analysis of variance, analysis of covariance, and multivariated procedures have made significant inroads in the control of such extraneous variables as the participants'

ages, sex, socioeconomic levels, and aptitude.

Studies Related to Recruitment, Admission, and Retention Policies

The second major approach to the dropout problem among high-risk minority students has been to consider the mental abilities, achievement levels, psychological/sociological characteristics, and biographical data of high-risk dropouts to be the same as those of the non-dropouts. Considering this assumption to be a sine quo non of high risk minority students, the institution then proceeds to concentrate on the recruitment, admission, and retention of each individual. Several of the efforts currently being made are presented in the following section of the literature review.

Basically, the problems associated with the recruitment, admission, and retention of high-risk minority students have been approached from two different points of view. One group of administrators has sought the answer to the dropout problem by studying the mental ability, academic achievement, psychological/sociological characteristics and biographical data of the high-risk minority students who have dropped out of colleges and universities. The second approach to the dropout problem makes several assumptions about the high-risk minority students involved and proceeds to implement programs which place varying degrees of emphasis on their recruitment, admission (enrollment), and retention. Both of these approaches are expanded in the following sections of the literature review.

McKelpin gives a progress report of the Education Improvement Project (EIP) of the Southern Association of Colleges and Schools.[5] The EIP serves as the assisting organization for two programs designed to improve educational experiences for the high-risk college freshman. The two programs are the College Education Achievement Project (CEAP), which focuses primarily on improving educational practices for high-risk Black freshmen, and the Higher Education Achievement Project (HEAP), which focuses on improving educational practices by technical and financial assistance to high-risk students from all minority or poverty groups.

In 1968 the Claremont Colleges of Claremont, California, developed and implemented a program of compensatory education for forty (40) college freshmen starting in the Fall of 1968. The participants entered a three-week orientation program which tailored their course load to their particular interests and abilities. The program also offered individualized counseling, tutoring, and full financial support. No grades were recorded on the student's transcript until the end of the second academic year. At that time the student could decide which grades he wanted recorded on his permanent transcript and whether he wished to continue with the program. The "success" of the individual participant was

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[5]Joseph P. McKeplin, "Improving Educational Practice for Marginal College Freshmen." 1971, (ERIC MICROFICHE ED050684)

determined by numerical values attached to several predetermined factors. Academic achievement was evaluated by using a first- and second-semester control-group design.[6]

The Santa Barbara City College sponsored a program which could be considered an extension of the Neighborhood Youth Corps Program sponsored by the Office of Economic Opportunity.[7] The program participants were students who have scored below the fifteenth percentile on the School and College Ability Test (SCAT), had low self concepts, and who had very low interest toward the traditional occupational area. The first group of students showed a two-semester grade-point average of 2.86 which was slightly higher than the regular college enrollment. The administrators of the program concluded that the disadvantaged and high-risk students can be recruited and retained if they are given the proper financial and tutorial assistance.

Wilson examined the current program efforts of UCLA to meet the needs of minority and high-risk students.[8] The major impetus for the UCLA programs came from the needs of

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[6]Dennis W. Spuck, "Description of a Compensatory College Educational Program for the Disadvantaged and Its Associated Research and Evaluation Program." 1969, (ERIC MICROFICHE ED042827)

[7]"The Summer Readiness Program: Neighborhood Youth Corps at Santa Barbara City College." Sept. 1970, (ERIC MICROFICHE ED042441)

[8]Charles Z. Wilson, "Recruitment, Academic Support, Fiancial Aid, and Some Interrelated Considerations." 1969, (ERIC MICROFICHE ED042441)

Blacks and Spanish-Americans. Recruitment of these minority students, traditionally barred from regular college admission, was accomplished with the help of minority students who went into the community to provide a peer-group setting in which to tell the story of the university. The program boasted a ten-to-one student-teacher ratio and an individual program of studies designed to let participants proceed at their own pace. UCLA provided financial assistance to the students, student aids, and recruiters. Program officials reported a dire need for recruiters who could establish an intensive and genuine relationship with potential students.

Several of the junior colleges in California have adopted a similar program for recruiting, retaining, and following-up disadvantaged and high-risk students.[9] Although the programs vary somewhat from one institution to the next, they all show some commonality. The scope of the programs shows students being used to recruit the disadvantaged and high-risk students at the elementary, junior high, high school, and community levels. Student-to-Student programs in the area of retention include the following: Recruitment/ Retention programs which not only enlist students but also strive to retain them by providing work in basic skills, tutoring, counseling, financial aids, curriculum advising,

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[9]John Paul Hernandez, "Student to Student: How California Junior College Students Help Their Fellow Disadvantaged College Students." 1968, (ERIC MICROFICHE ED031215A)

and extracurricular activities. The follow-up programs are primarily focused on the students who have taken jobs and those who have dropped out of school. Most colleges have concluded that the programs serve a very basic need and will be continued and expanded whenever possible. Of all colleges surveyed, lack of qualified personnel was the most common complaint.

The University of Wisconsin offered an extensive array of programs and services for minority groups through its three extension divisions. The three extension divisions are human resources development, economic and environmental development, and liberal and professional education.[10] Through these programs, Negroes, Puerto Ricans, Indians, Mexicans and Spanish-Americans have been reached. The faculty members who work in the University extension community programs division were intensively involved at the local level in problem analysis and problem solving efforts related to minority groups. The yearly report prepared at the end of the 1971 fiscal year showed a total of ninety (90) such programs being operated through the extension division of the University of Wisconsin. Professors and students alike were encouraged to participate in the program on a one-to-one basis.

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[10]The University of Wisconsin Press, 1970, "University Extension Services to Minority Groups." 1967, (MICOFICHE ED027833A)

A 1968 survey of 162 colleges and universities showed that 86 (53 percent) have an organized program to enroll high-risk students.[11] The type of student being sought by these institutions varies somewhat, but most students being sought are from a disadvantaged, minority group background and do not have the traditional preparatory and personal experiences to qualify for admission to institutions of higher education.[12] Questionnaire responses indicated the nature, extent, variety of approaches, and recruitment procedures of the high-risk programs. Egerton reported that federal government, state, local, and foundation funds have financed many of the special efforts to find and recruit able but disadvantaged high school students, but there has been almost no support for developing programs in higher education for these students. The report is concluded with recommendations for developing special programs and suggested curricula for high-risk students. Copies of Egerton's report have since been made available to educational institutions as well as individuals. Many of the recommendations made by Egerton were used as guidelines in developing government supported educational programs for high-risk students from minority groups.

[11]John Egerton, "Higher Educationa for 'High Risk' Students." 1968, (MICOFICHE ED023745A)

[12]John Egerton, "High Risk." 1968, (MICROFICHE, ED 020985)

Some attempts have been made to provide high-risk students with information about colleges which have programs for students who fail to qualify for admission through regular channels. The College Entrance Examination Board (CEEB) has prepared a directory of over 800 colleges and universities which provide special help to high-risk students from minority and low-income families. The first section of this document relates to information useful to high school students who are interested in going to college, such as the reasons for going or not going, applying for admission, and financial aid. This section also includes titles of other related books. The second section of the book lists colleges by state that have a high proportion of minority group enrollment. The third section of the book lists the 829 colleges and universities by state and gives some pertinent information about the availability of special services and programs for high-risk minority-group or disadvantaged students. The last section of the book, the bulk of the report, presents a brief description, by state, of the special services programs available at each of the 829 colleges and universities. The CEEB has made this information available to any institution or individual for a nominal fee.[13]

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[13]Edwin L. Klingelhofer, "Do Race and Economics Decide Who Gets What?" 1971, (MICROFICHE ED047644)

From a broader perspective, O'Neil contends that there are other barriers to equal access in higher education. In particular, he cites such factors as finances, selective admissions policies, race, and geography.[14] O'Neil states:

> Though some intensive efforts have been made to recruit minority students, the situation is not much better now than it was 20 years ago. The American higher educational system has grown rapidly but the demands on education have increased even faster. Most institutions have become more selective, and this has produced sharp stratification between levels. (Levels of social stratification of students) Much of the increase in minority group enrollment is accounted for in community colleges, the minority share among freshmen being much higher than among upperclassmen . . . there is some uncertainty whether recent trends really reflect net enrollment change or simply describe the reallocation of a static student population, i.e. more Blacks in previously all-White schools and more Whites in previously all-Black schools. Geography is becoming a barrier with private, prestigious institutions seeking national distribution of student populations, and the public schools limiting out-of-state enrollment. Financial considerations may force the private institutions to accept the in-state student with a state scholarship over the out-of-state student who needs financial support from the college.

O'Neil concludes that the considerations mentioned above have a more decided effect upon a student's selection or rejection by a college than his personal qualifications furnished by the secondary schools.

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[14]Robert M. O'Neil, "Beyond the Threshold: Changing Patterns of Access to High Education." October 1970, (MICROFICHE ED046346)

Several significant programs designed to raise the performance level of disadvantaged college youth are also under way. These can serve as models for personnel workers. For example, in an experimental program at Queensboro College, New York City, over one hundred youngsters were selected for admission on the basis of the "hunch" of a principal or counselor that they had potential, despite mediocre high school records. Each youngster was given counseling, guidance, and remedial instruction. When, but only when, the individual was ready would he be placed into the regular curriculum.[15*] In Detroit, Wayne State University recruited a number of economically deprived, but academically qualified students. A special remedial, guidance, and counseling program back-stopped their first year of classes. The results of the first year's program indicated that the special students had made significant gains in their achievement levels.

There has been public criticism that these financial aid programs are not reaching their intended recipients and that even when a poverty level student--especially a Black student--receives aid, his chances for persistence in college are slim.

Because of the limited amount of research on the relationship of persistence and student financial aid, Selby

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[15*]Results of a personal visit by the author in May, 1972.

conducted a study to determine what relationships exist among race, the amount of financial aid awarded to students, and persistence in college.[16]

Black students were matched with White students on the following variables: (a) sex, (b) academic aptitude (SCAT), and (c) high school class rank. High-school-class rank percentile was used as the final criterion to determine the best corresponding White student for each Black student. Thus, the final 30 matched pairs consisted of the 30 students from each group who best fit the designated variables. The students in each pair were matched within 5 SCAT (raw score) points and within 15 percentile points for high school class rank. Matched pairs also came from similar socioeconomic backgrounds.

The data reported by Selby showed that no significant relationships existed between persistence in college and amount of financial aid received for any racial subgroup or the total group of students. The results further showed that no difference existed between Blacks and Whites in terms of their persistence in college.

Recently, interest has been generated in providing educational opportunities for minority students who, because

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[16]James E. Selby, "Realtionships Existing Among Race, Student Financial Aid, and Persistence in College." Journal of College Student Personnel, 1973, 14, p. 38-40.

of lack of opportunity or adequate preparation, have not previously sought to enter or been admitted to college programs.

It has been very difficult to predict the performance of minority students according to previous research studies.[17] Thomas and Stanley indicated that although high school grades were consistently the best predictors of college grades for White students, these grades often did not predict the possibilitites of academic success for Black students.

In a representative national sample of students entering American colleges and universities. Bayer and Boruch[18] described the characteristics of Black and White freshmen and found many differences in personal and background characteristics. Blacks were more likely to be older students from low-income urban families, and they had below average aptitude test scores and higher educational aspirations than their White peers. Bowers[19] stated that different prediction equations were needed for Special-

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[17]Thomas, C.L. and Stanley, J.C. "Effectiveness of High Grades for Predicting College Grades of Black Students: A Review and Discussion." Journal of Educational Measurement, 1969, 6, p. 203-215.

[18]Bayer, A.E. and Boruch, R.F. "Black and White Freshmen Entering Four-Year Colleges." Educational Record, 1969, 50, p. 371-386.

[19]Bowers, J. "The Comparison of GPA Regression Equations for Reguarly Admitted and Disadvantaged Freshmen at the University of Illinois." Journal of Educational Measurement 1970, 7, p. 219-225.

Education-Opportunitites-Programs students than for regularly admitted freshmen.

Egeland, Hunt, and Hardt investigated college enrollment data for 6,000 Upward Bound students and found that 68 percent of the students who had participated in a pre-college enrichment program enrolled in college compared to a matched non-Upward Bound sample in which only 48 percent enrolled. The Upward Bound college students had higher scores than a non-college group on tests which measured flexibility, self-evaluated intelligence, and the student's concept of the importance of college graduation.[20]

Paschal and William[21] discussed the results of a summer Upward Bound Program for minority students. The students took pre- and posttests on measures of attitudes, self-concept, and dogmatism. Only on one motivation subscale did score gains approach significance.

Shaffer summarized the findings of most research studies in the following statement:

> In summary, the factors which seemed to contribute most toward successful achievement in college for these disadvantaged minority students were an orientation toward and motivation for academic pursuits, an acceptance of their educational goals

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[20]Egeland, B., Hunt, D.E., and Hardt, R.H. "College Enrollment of Upward Bound Students as a Function of Attitude and Motivation." Journal of Educational Psychology, 1970, 61, p. 375-379.

[21]Paschal, B.J. and Williams, R.H. "Some Effects of Participation in a Summer Upward Bound Program on the Self-Concept of Disadvantaged Adolescent." Journal of Negro Education, 1970, 39, p. 34-43.

> and their professors, positive attitudes and techniques for studying, and scholastic aptitude, particularly verbal ability. In addition, the satisfactory completion of the summer preparatory program contributed to the students' subsequent academic success in the first two years of college.[22]

In her study, Shaffer sought to determine if standardized tests are predictive of college academic success for Equal Opportunity Program (EOP) students. It was indicated that some biographic measures of disadvantaged students are predictive of their college success. The study also stated that a positive relationship existed between the formal education of the disadvantaged student's mother and his college GPA. The data also showed that disadvantaged students who use college tutorial services normally complete more college units than those students who do not have tutors.

The study indicated that a preparatory curriculum should be established for subjects which the disadvantaged students lack: English, reading, writing, basic math, and possibly the natural sciences.

The campus buildings might include a tutorial center that specializes in assistance of the verbal skills and provides assistance in academic as well as financial and personal counseling. Each freshman disadvantaged student might be required to attend the center a certain number of hours

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[22]Phyllis E. Shaffer, "Academic Progress of Disadvantaged Minority Students: A Two-Year Study." Journal of College Student Personnel, 1973, 14, p. 41-45.

per week until he completes his first year in college. At that time, his progress could be re-evaluated and the necessity of further tutorial assistance determined.

Another study by Peterson indicated that it was very difficult for disadvantaged students to make a smooth transition from ghetto to the liberal arts college environment.[23]

Primarily, the studies related to government-funded programs mentioned in the preceding sections have not been well evaluated and consequently have been brought under close scrutiny by the Nixon administration. It is anticipated, however, that such assessments can and will improve the quality of educational efforts if new programs are based on measurable behavioral objectives.

Until recent years major emphasis in federally funded programs has been toward disadvantaged students below the college level. However, recent legislation has opened up new areas for federal assistance to college age students.

THE THRESHOLD PROGRAM AT THE UNIVERSITY OF OKLAHOMA

The University of Oklahoma along with 120 colleges and universities has taken the initial step in providing special services for high-risk minority group students. These 121 colleges and universities are currently providing extensive guidance and counseling for "Special Services Students."

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[23]Carl D. Peterson, "The Development and Achievement of Equal Opportunity Program Students." Journal of College Student Personnel, 1973, 14, p. 34-37.

The special services program for high-risk students at the University of Oklahoma is called Threshold. Admission to Threshold is contingent upon a student's eligibility for admission to the University of Oklahoma for both the fall and spring semester. Each student must meet at least one of the following criteria:

1. ACT score of 16 or above;
2. Over all G.P.A. of 2.5 or above;
3. Rank in the upper one half of his graduating class.

Admission priorities are given to applicants who meet the minimum admission standards, and who are from low-income backgrounds. The Threshold Program is an academic program designed especially to assist students from low-income backgrounds who are trying to obtain a post-secondary education. The success of two previous summer programs and a recent grant from the U. S. Office of Education has extended the program for a third academic year. This expansion ensures extensive educational guidance, counseling, tutoring, and supportive academic services for approximately 300 students.

Effective guidance and counseling, coupled with instruction by well-trained professors and tutors enhance the academic and social success of Special Services Program Students at the University of Oklahoma.

The Threshold staff consists of seven full-time employees; a director, a secretary, and five counselors; one of the counselors serves as the tutorial coordinator. The

additional counselors serve in the following capacities:

1. Conducting large- and small-group discussions concerning matters which are relevant to the academic and social growth of participants.

2. Providing academic advisement for participants.

3. Assisting participants in securing financial aid for housing, tuition, books and other needed materials and services.

4. Securing jobs for students.

5. Counseling students with personal and emotional problems.

6. Making referrals to specialists when students' problems exceed the expertise of Threshold counselors.

7. Assisting the participants in developing and implementing educational and life goals.

8. Informing parents of the academic and social progress at the University of Oklahoma.

9. Making referrals to the tutorial coordinator for special and individual tutoring.

10. Providing encouragement and direction for the disappointed and discouraged students.

An important aspect of the project is the tutorial program. The main objective of the tutoring service is to improve academic achievement and to provide the special services student with tools with which he can identify how learning can be useful to him. In achieving this objective,

the tutor uses various academic and non-academic methods and techniques which aid the student in discovering ways to enjoy learning. During the orientation of tutors one of the main points emphasized is that there is no one way to tutor. The tutor must be innovative and sensitive to the needs of the tutee, especially those of minority groups. Secondly, the tutor creates an atmosphere for learning as far removed from the formal-traditional methods used in higher education as possible. Through in-service training the tutors are able to role-play situations which portray the backgrounds of the special services students. This is done in an attempt to sensitize the student/tutor to the fact that the problems facing the students whom they will be tutoring, in most instances, originate with the community at large. After the program has begun, the tutorial coordinator meets periodically with the tutors in small groups to discuss any problems they have encountered and to answer questions about the program.

The faculty chosen for the special service students is one committed to working with people--not Blacks, Whites, Reds, or Browns. The staff must be willing to change their behaviors as they strive to effect behavioral changes in the so-called low-income, minimally prepared, high-risk student. In other words, those institutions which accept the responsibility for educating the Special Service Student must be ready to modify existing curricula in order to provide

relevant educational experiences for the student. They must think "innovative relevancy."

Following the establishment of a good relationship with the Financial Aids Department at the University of Oklahoma, many inroads have been made by the Department to provide financial support to all Special Services Students. As a result, virtually all Threshold participants are receiving financial assistance of some sort from at least one of the following sources:

1. BIA - Bureau of Indian Affairs Scholarships
2. NDSL - National Direct Student Loan
3. LWFL - Lew Wentz Foundation Loan
4. EOG - Educational Opportunity Grant
5. GBL - Guaranteed Bank Loan
6. W/S - Work-Study Program

Many of the participants have also received additional scholarships.

When a minority group student is cast into a predominantly White educational system (be it by choice or force) he finds himself at a crossroad. He enters a White-oriented world daily and is exposed to a new subculture which previously was not foremost in his daily interactions. (The minority student coming from a predominantly segregated environment goes through a transition, a major period of adjustment.) Frequent interaction with his White peers shapes, alters, and formulates new attitudes. Misconceptions

and prejudices instilled in the student from early training often distort the student's self-concept. Interaction with others can either justify these distortions or prove them to be untrue.

Definitions of Terms

Several terms were used in the conduct of the study which will need to be defined in order to avoid multiple interpretations. The definitions and explanations extended are not intended to be a final and absolute definition of the individual terms. They are, however, an explanation and/or definition of the way the terms were used in the present study. The major terms which demand a definition are as follows:

Threshold Program: An innovative educational program developed, implemented, and funded by Federal monies. The program was designed to assist high-risk minority group students (See definitions three and four) in gaining entry to post-secondary educational institutions. The Threshold Program alluded to in this study is the Threshold Program which is experiencing its third consecutive year of operation since its inception on the campus of the University of Oklahoma at Norman.

Threshold Students: High-risk minority groups students who are currently enrolled in the University of Oklahoma Threshold Program or who have previously been

enrolled in the program during its tenure on the OU campus.

High-Risk Students: Those students who participated in the study who were from low-income families according to the Health, Education and Welfare quidelines established for Special Services Programs.

Minority Group Students: Students who participated in the study who were from one of the following ethnic backgrounds; Black, Indian, or Spanish-American.

Disadvantaged Students: Those students who participated in the study who were currently or had been previously enrolled in the Threshold Program at OU, and, therefore, were declared economically disadvantaged because of the family gross income. (See Figure 2.1)

Non-Threshold Students: Those students who participated in the study who were classified as regularly enrolled freshmen at the University of Oklahoma and who had composite ACT scores comparable to the Threshold students who were participating in the study.

FIGURE 2.1

SOCIOECONOMIC GUIDELINES ESTABLISHED FOR ADMISSION TO THE SPECIAL SERVICES PROGRAM (THRESHOLD) AT THE UNIVERSITY OF OKLAHOMA

Number of Family Members	Maximum Income Allowable for Non-Farm Residents[1]	Maximum Income[3] Allowable for Farm Residents[2] (Rural)
One	$2,092	$1,778
Two	2,619	2,225
Three	3,113	2,635
Four	3,976	3,387
Five	4,684	4,002
Six	5,263	4,491
Seven	6,486	5,521
Eight	7,086	5,921
Nine	7,686	6,321
Ten	8,286	6,721

[1]Add $600 for each additional family member

[2]Add $400 for each additional family member

[3]Low-income criteria are based on the adjusted gross family income.

Note: A participant may also be considered disadvantaged if he or she;

(1) lives in federally supported low-income housing

(2) is from a family on a state or federally funded welfare program

Hypotheses Tested in the Study

In order to make definitive statements about the results reported by the different groups of student participants, four (4) hypotheses were tested at the .05 level of significance.

Ho_1 There is no significant difference between the Grade-Point Averages (GPA) reported by the freshmen Threshold '71 students and the GPA's reported by the non-Threshold freshmen students who were attending the University of Oklahoma during the same period of time.

Ho_2 There is no significant difference between the dropout rates reported by the freshmen Threshold '71 students and the dropout rates reported by the non-Threshold freshmen students who were attending the University of Oklahoma at the same time.

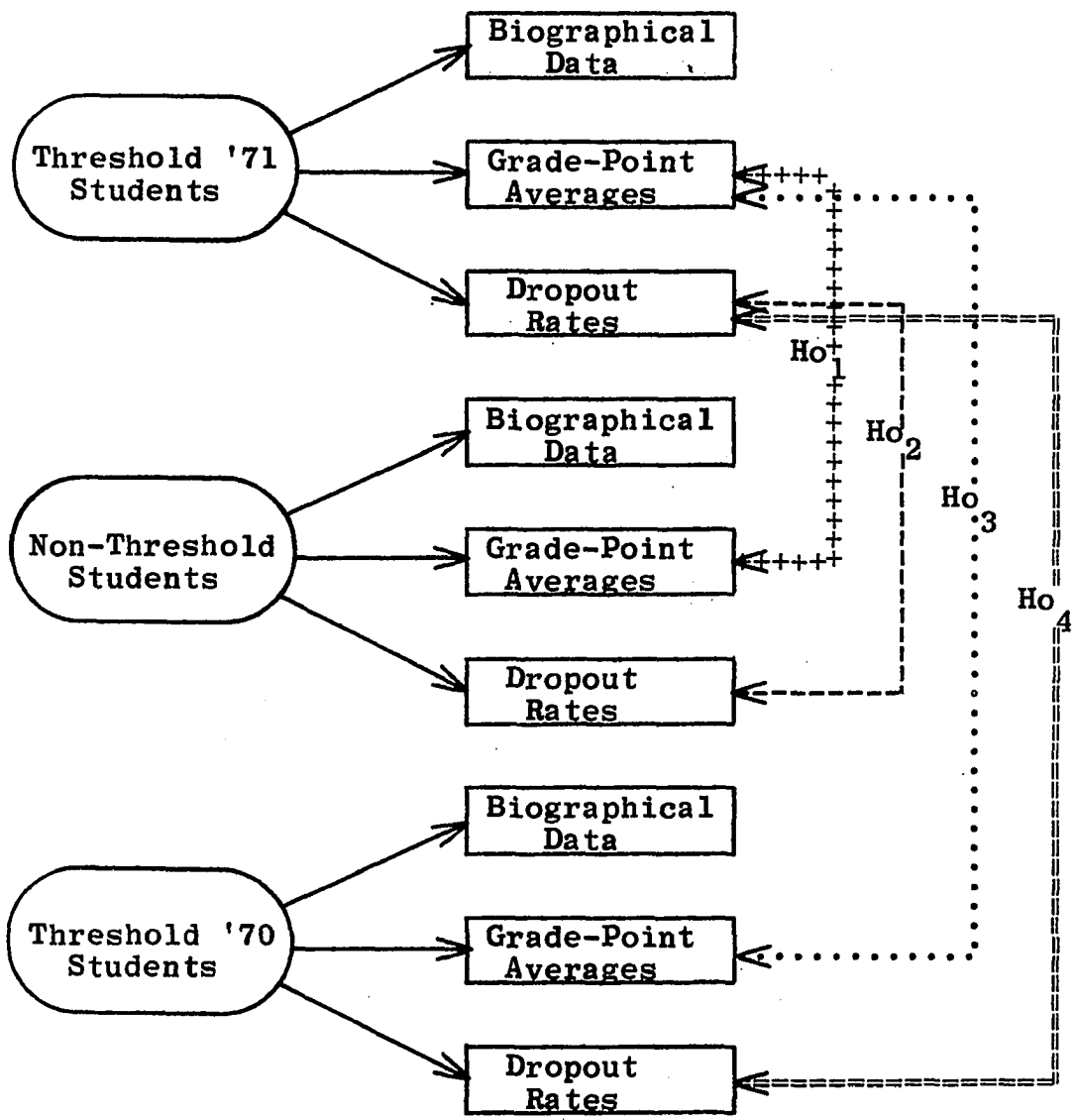
Ho_3 There is no significant difference between the GPA's reported by the freshmen Threshold '71 students and the GPA's reported by the freshmen Threshold '70 students for a similar period of time during the previous academic year (1970-71).

Ho_4 There is no significant difference between the dropout rates reported by the freshmen Threshold '71 students and the dropout rates reported by the freshmen Threshold '70 students for similar periods of time.

In order to test these four hypotheses it was necessary to collect three types of data from the study participants; (1) Biographical data, (2) first- and second-semester grade-point averages, and (3) Statistics concerning the dropout rates of each group. An illustration of the data collected and the comparisons made is presented in Figure 2.2

FIGURE 2.2

ILLUSTRATION OF COMPARISONS MADE IN TESTING THE HYPOTHESES*



*Four hypotheses were tested for significance at the .05 level of confidence. The results are presented in Chapter IV.

Limitations of the Study

It was necessary to set certain limitations on this study in order for it to become feasible. The most important of these limitations involved the samples of subjects who participated and the variables which were studied. These limitations may be enumerated as follows:

1. The sample of Threshold '71 student participants was limited to those fifty-eight (58) full-time (12 or more hours) Threshold students who were enrolled in OU's Threshold Program during the 1971-72 academic year.
2. The sample of Threshold '70 student participants was limited to fifty-six (56) full-time (12 or more hours) Threshold students who were enrolled in the Threshold Program during the 1970-71 academic year. These students were considered to be regularly enrolled freshmen at the University of Oklahoma.
3. The sample of non-Threshold students was limited to fifty-eight (58) full-time (12 or more hours) students who had been stratified, randomly selected, from the population of regularly enrolled freshmen at the University of Oklahoma and matched with the Threshold '71 students on composite ACT scores and sex.
4. The number of variables studied in the study was

limited to those shown on the data-collection instrument in Appendix A and to the variables.

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UNIVERSITY MICROFILMS.

CHAPTER III

METHODS AND PROCEDURES

Data were collected from fifty-eight Threshold '71 freshmen, fifty-six Threshold '70 freshmen, and fifty-eight non-Threshold freshmen enrolled at the University of Oklahoma for the 1971-72 academic year in order to compare the dropout rates, biographical data, and first- and second-semester Grade-Point Averages (GPA's) of the three groups. A sample of fifty-eight (58) regularly enrolled freshmen students matched with 58 Threshold '71 students on composite ACT scores, and sex were drawn and their overall GPA's for the first and second semester, biographical data, and dropout rates were compared with the GPA's, biographical data, and dropout rates of the Threshold '71 students. The GPA's, biographical data, and dropout rates of the Threshold '70 students were also compared with these same measures taken for the Threshold '71 students.

The Threshold Program at the University of Oklahoma was implemented in the Fall of 1970 and has received continuous, though limited funding since that time. The present study was an attempt to determine its effectiveness as measured by its ability to retain and facilitate the academic progress of its participants as compared to a non-Threshold population of students.

The methods and procedures used in conducting the study were divided into three areas; the pre-evaluation procedures, the data-collection procedures, and the data-analysis procedures. Each of these areas of the methodology is discussed in the following sections of the final report. The individual areas are, in turn, sub-divided into tasks or procedures and discussed at length in the following passages.

PRE-EVALUATION PROCEDURES

The pre-evaluation procedures consisted of all those tasks which it was necessary to complete before the actual data collection began. These tasks included such operations as the choice of a research design, choice of student population, choice of variables to be studied in the investigation, development of data collection instruments, and the choice of statistical analysis procedures.

Choice of Research Design

The first pre-evaluation procedure was to choose the proper research design for the conduct of the evaluation desired. The words "research design" are intended to mean the plan, structure, and strategy of investigation conceived to obtain answers to research questions and to control external sources of variation. The Plan is the overall scheme or program of the evaluation problem; the Structure is the more specific structure or paradigm of the operation of the variables being studied; and the

Strategy as used here is even more specific than the structure--it is the actual method to be used in the gathering and analysis of the data.

A research design serves two basic purposes: (1) it provides answers to research questions posed by the investigator; and (2) it controls external sources (variables) of variation. In other words, it is through the design of a study that research is made effective and interpretable.[1] Kerlinger makes the following statement in regard to research and evaluation designs:

> . . . How does design accomplish this? Research designs set up the framework for 'adequate' tests of the relations among variables. The design tells us, in a sense, what observations (measurements) to make, how to make them, and how to analyze the quantitative representations (data) of the observations. Strictly speaking, design does not 'tell' us precisely what to do, but rather suggests the directions of observation-making and analysis, how many observations should be made and which variables (independent) are active variables and which are assigned. We can then act to manipulate (control) the active variables and to dichotomize or trichotomize or otherwise categorize the assigned variables. A design tells us what type of statistical analysis to use. Finally, an adequate (proper for the particular situation) design outlines possible conclusions to be drawn from the statistical analysis. (Parentheses material added)

The research design chosen for the present evaluation was a survey-type study supplemented by additional data from other sources. A paradigm of this design is presented in Figure 3.1.

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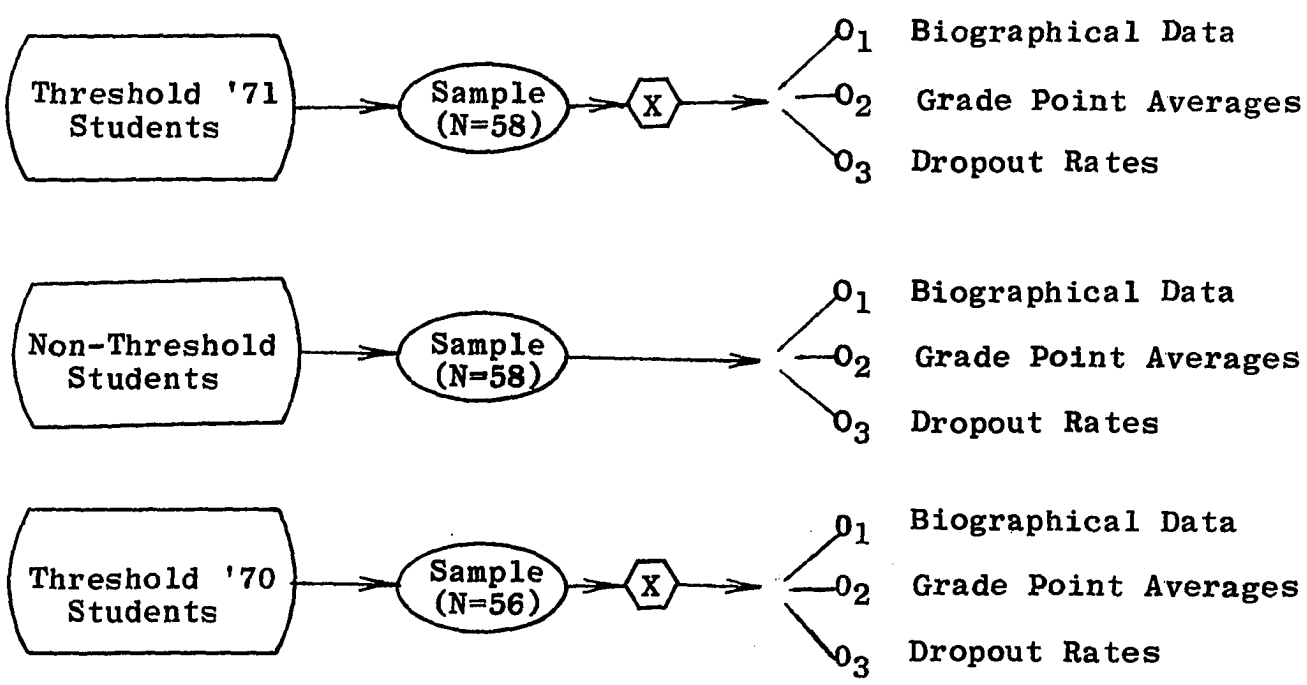
[1] Fred N. Kerlinger, The Foundations of Behavioral Research, New York: Holt, Rinehart, & Winston, 1964, p. 276.

Figure 3.1

PARADIGM OF RESEARCH DESIGN*



Explanation of Symbols:

O_n = Observation made; test given; data collected

X = Experimental treatment--in this case the experimental treatment was the Threshold Program

*Reference: D. T. Campbell, and J. C. Stanley, Experimental and Quasi-Experimental Designs for Research, New York: McGraw-Hill Book Company, 1963, pp. 17-18.

Choice of Student Population and Samples

Three groups of subjects were used in making the initial comparison for testing the hypotheses stated in Chapter I. These three groups were composed of the following: (1) Fifty-eight Threshold '71 students, (2) Fifty-six Threshold '70 students, (3) Fifty-eight non-Threshold students who were regularly enrolled freshmen at the University of Oklahoma (See definition of terms in Chapter II). The non-Threshold students were stratified-randomly chosen from those freshmen who were enrolled in a full-time class load during the 1971-72 academic year. The Threshold '71 student group was composed of the fifty-eight students who began the program in the Fall of the 1971-72 academic year. The Threshold'70 student group was composed of the fifty-six Threshold students who were the first enrollees of the special services program at its initial inception on the University of Oklahoma campus.

Choice of Variables Studied

The next step in the pre-experimental procedures was to choose the experimental variables which were studied and measured in the study. This selection came about as a result of the literature survey made, since it was necessary to control all variables that are "known" to be related to the dependent measures being taken. [2,3] The literature search

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[2]Kerlinger, Ibid.

[3]George A. Ferguson, Statistical Analysis in Psychology and Education, (New York: McGraw-Hill Book Company, 2d ed. 1966), pp. 270-280.

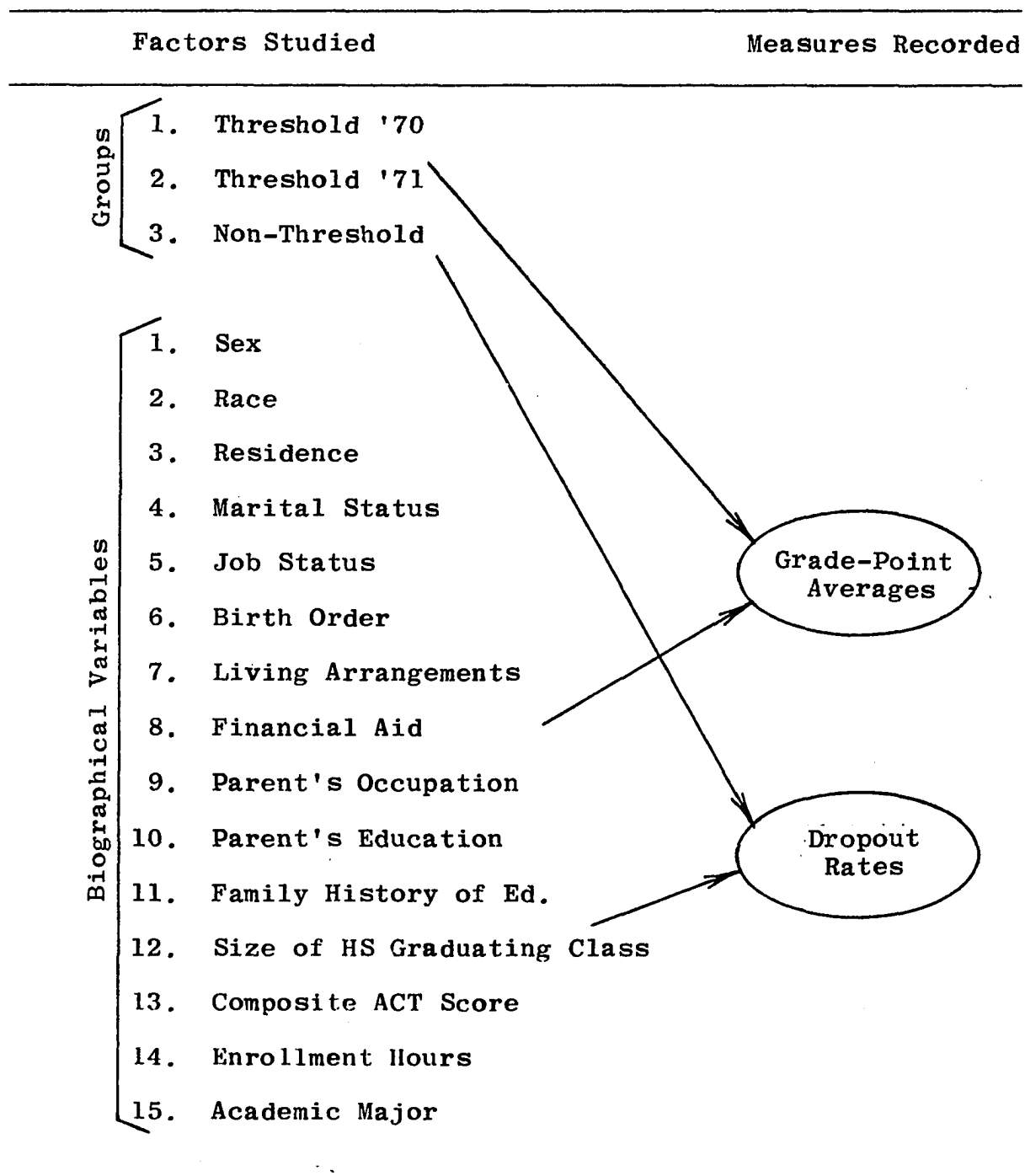
revealed several variables which have been shown in past research efforts to be related to the success of minority-group high-risk students in post secondary education. The three most important of these variables have been shown to be the student's grade-point average, ACT scores, and achievement scores from standardized tests. However, several other bits of biographical information were collected in the study. These are shown in Figure 3.2.

Development of Data Collection Instrument

It was necessary to develop a data collection instrument in order to obtain measures of the variables shown in Figure 3.2. This instrument, The Confidential Survey Questionnaire shown in Appendix A, was developed for the study. Prior to this time the instrument had been field tested on a variety of subjects. The researcher used the instrument as shown with one exception--the term "Caucasian" was added to question number eight (8) concerning the participant's ethnic background. The amount of information collected from the students was restricted to the questions shown in order to encourage a higher percentage of participation.

FIGURE 3.2

ILLUSTRATION OF FACTORS STUDIED



Choice of Testing Statistic

A Student's t-test[4] was used to test two of the four hypotheses. A t-test was computed between the mean differences noted for the changes observed between the first- and second-semester GPA's reported for each group. Each student of each group showed three measures; (1) a Grade-Point Average (GPA) for the hours taken during the first semester of the freshman year, (2) a GPA for the hours taken during the second semester of the same year, and (3) the mathematical difference between the first- and second-semester GPA's. The basic unit of measure in this study was the third measure, the GPA difference scores computed for each of the students within the three groups.

Hypotheses number two and four were tested by using a z-test for proportions or percentages.[5] These two hypotheses were actually a comparison of the dropout percentages experienced by the Threshold '70, Threshold '71 and non-Threshold groups.

Additional statistical tests were used in analyzing the biographical data collected from the questionnaire. For the most part, the data were nominal level and had

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[4]Student, "Errors of Routine Analysis." Biometrika. 1927, 19, p. 151-164.

[5]Roger E. Kirk, Experimental Design: Procedures for the Behavioral Sciences. Belmont, Calif.: Brooks/Cole Publishing Company, 1968.

to be analyzed with a chi square (X^2) statistic. However, none of the questionnaire data was used in testing the four hypotheses.

Preliminary Correspondence to Student Participants

In order to insure a maximum return of the survey questionnaires, it was necessary to make an initial contact with the students chosen to participate in the study. A letter had been developed for this purpose (Appendix B). It was necessary to mail this correspondence to the 58 Threshold '71 students, the 58 non-Threshold students, and the 56 Threshold '70 students. As soon as the preliminary correspondence had been mailed to the three groups of participants, the researcher considered the first major part of the methods and procedures to be completed. The next area of the procedures was the actual collection of the data from the three groups of students.

DATA COLLECTION PROCEDURES

The second major area of the methods and procedures was the actual collection of the data from the three groups of student participants. These data were collected in two ways, by having the students fill out questionnaires and by searching the records and reports submitted on the Threshold participants and OU freshmen. The methods used in collecting data from each of the groups is considered in the following passages.

Collection of Data from Threshold '70 Students

Much of the data needed from the students were obtained from the past records maintained by the University of Oklahoma and the Threshold Project administration. Specifically, some of the data needed on Threshold '70 students were summarized in an unpublished doctoral dissertation.[6] First- and second-semester GPA's were recorded for the Threshold '70 students as a result of their participation in the Program during the 1970-71 academic year. However, some students had left the program for one reason or another and it was necessary to mail questionnaires to these participants. The drop-out rates of these same participants were also computed for the same period of time.

Collection of Data from Threshold '71 Students

The 58 students in the Threshold '71 sample were asked to complete the Confidential Survey Questionnaire shown in Appendix A. The responses of those who had been dropped from the program were considered to be crucial to the outcome of the study and the researcher obtained a 100 percent return from questionnaires mailed to students. While awaiting the return of mailed questionnaires and during the time when the survey questionnaires were being administered to the remainder of

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[6]Travis Mullins, "A Comparison of the Achievement Rates of Three Races of College Students Enrolled in a Special Services Program at the University of Oklahoma",(Unpublished Doctoral Dissertation; University of Oklahoma, Norman p. 1-89.

the Threshold '71 students, the students' overall GPA for their first semester and second semester enrollment at the University of Oklahoma were obtained from individual student records. The students' ACT scores were obtained from these records although it was necessary to contact other colleges and universities if the students had enrolled in another college or university prior to their enrollment at the University of Oklahoma.

Collection of Data from the Non-Threshold Students

Similar procedures were used in collecting data from the non-Threshold students as those used with the Threshold '71 students. The researcher did not have the intimate contact with the 58 non-Threshold students that he did with the 58 Threshold students, however. For this reason, the collection of the data on the Confidential Survey Questionnaire required all questionnaires to be mailed to the non-Threshold participants. At the same time, the students who were still enrolled in college and who had been randomly chosen for participation in the study on the basis of their sex and ACT socres were contacted personally if it was at all possible. The student's ACT scores and overall GPA for the first and second semesters were obtained from their personnel records during the time they were completing the survey questionnaires. If any student chosen for the non-Threshold sample failed to complete the instruments or did not have the necessary information

for completing the biographical data section of the instrument, he was dropped from the study sample. The data collected from the three groups were compiled in the third and final area of the experimental procedures.

DATA-ANALYSIS PROCEDURES

The third and final area of the methods and procedures was the data-analysis procedures. The data-analysis procedures included all those tasks which were completed after the data had been collected from the three groups of participants and before the results of the statistical calculations had been determined. The majority of these tasks were concerned with the coding and processing of the data using electronic data-processing equipment.

FORMAT OF FINAL DOCUMENT

The dissertation resulting from this study is presented in a five-chapter format. The chapter titles and the essence of each are as follows: (1) Introduction and Statement of the Problem; (2) Review of Related Literature and Theoretical Framework; statement of the purpose, hypotheses, definitions, limitations, and assumptions; (3) Methodology and Procedures: the actual procedures followed in collecting and analyzing the data from the three different groups of students; (4) Results of Data Analysis: the actual results of the calculations made on the data collected. These results are presented

in tabular form in chapter IV. The results of the analysis are presented in the form of a profile for the Threshold participants. (5) Summary, Conclusions, and Implications for Further Research: This chapter includes a brief summary of the entire study, the obvious conclusions to be drawn from the results presented, and the suggestions made by the researcher concerning future studies that are similar in nature. The final chapter is concluded with several generalized remarks.

CHAPTER IV

RESULTS OF DATA ANALYSIS

First- and second-semester grade point averages and dropout rates of non-Threshold freshmen enrolled at the University of Oklahoma for the 1971-72 academic year were compared to the first- and second-semester GPA's and dropout rates of freshmen students who had been enrolled in the Threshold '70 Program and the first- and second-semester GPA's and dropout rates of the freshmen students who were enrolled in the Threshold '71 Program. The Threshold Program is a federally-funded program designed to assist low-income students after they have enrolled in college by providing guidance and counseling services, tutorial assistance, part-time job opportunities, etc.

The purpose of the study was to compare the academic achievement and dropout rates of high-risk students with the academic achievement and dropout rates of regularly enrolled students who had been matched with the Threshold '71 students on composite ACT score and sex.

Academic progress was determined by computing the mean grade-point averages for at least twelve (12) hours of classwork per semester. A second measure, student dropout rates, was also recorded for all three groups. These two measures were used to test the four stated hypotheses. However,

participants were also asked to complete a Confidential Questionnaire such as the one presented in the Appendices. The data from these questionnaires are presented in the ancillary findings of this chapter.

Finally, the results of testing the hypotheses and the ancillary findings are synthesized in the final section of the results.

Comparisons were made among the three groups in order to test four hypotheses. Two hypotheses were related to academic achievement and two were related to dropout rates. The results of testing these four hypotheses are presented in this chapter along with several ancillary findings pertaining to biographical information collected from each group of participants.

The ancillary (secondary) findings are divided into four separate areas: (1) personal data, (2) biographical data, (3) educational data, and (4) occupational and educational history of the student's family.

Results of Testing the Hypotheses

The results of testing the stated hypotheses are presented in the following sections. The data presented within the text represent only the descriptive statistics needed to perform the analysis made in testing the particular hypothesis. All raw data are presented in the appendices, however.

Results of Testing Hypothesis Number One

Null hypothesis number one was tested as follows:

Ho_1 There is no statistically significant difference between the Grade-Point Averages (GPA) reported by the freshmen Threshold '71 students and the GPA's reported by the non-Threshold freshmen students who were attending the University of Oklahoma during the same period of time.

The first hypothesis was tested by performing a student's t-test between the mean GPA value computed for the Threshold '71 students and the mean GPA value computed for the non-Threshold students. The mean first-semester GPA, mean second-semester GPA, the mean cumulative GPA, and the t-values are presented in Table 4.1. The actual raw data reported for each group are presented in the appendices along with the mean ($\bar{X}$) and standard deviation (S) of each measure taken.

The results presented in Table 4.1 show that one of the grade-point comparisons made was statistically significant but the other two were not. A comparison of the first-semester GPA's computed for the Threshold '71 and non-Threshold groups showed a significant difference between the two ($t=2.188$; $df=113$, $p < .05$). These results indicate that the Threshold '71 students had a significantly higher grade-point average at the end of the first semester than the non-Threshold students had for that same period of time.

On the other hand, a comparison of the second-semester GPA's for these same two groups indicated that there was no

TABLE 4.1

A COMPARISON OF THE GRADE-POINT AVERAGES RECORDED FOR THRESHOLD '71 STUDENTS AND NON-THRESHOLD STUDENTS

Grade-Point Averages	Threshold '71 Group	Non-Threshold Group	t-Values	Sign. Level
First-Semester GPA	2.249 (N=57)	1.972 (N=58)	2.188	$<.05$
Second Semester GPA	2.038 (N=57)	2.128 (N=51)*	0.650	$>.05$
Cumulative GPA	2.144 (N=57)	2.120 (N=51)*	-0.220	$>.05$

*Seven (7) of the non-Threshold students dropped out at the end of the first semester and reduced the number of participants in that group to fifty-one (51).

significant difference between the means of the two groups ($t = 0.650$; $df=106$, $p > .05$). These results should be interpreted with caution since they do <u>not</u> imply that the non-Threshold group had raised their scores to a level comparable to the Threshold '71 group during the second semester. Even though the non-Threshold participants ended the first semester with GPA's which were significantly lower than the Threshold '71 students' and showed no significant difference with the Threshold '71 students at the end of the second-semester, these results can be explained in part by the fact that seven (7) of the non-Threshold students dropped out of college after the first semester. A perusal of the records of these seven dropouts showed that they were near the bottom of the group academically. The elimination of seven of

the poorer (academically) students from the non-Threshold group was the actual reason for their higher grade-point average at the end of the second semester [GPA of non-Threshold group for first semester (n=58) $\bar{X}$=1.972; for second semester (N=51) $\bar{X}$= 2.128].

The Threshold '71 group showed that one student dropped out of college who was enrolled during the two semester period of the study. The differences between the groups' dropout percentages are compared in the next hypothesis.

A comparison of the cumulative grade-point averages of the Threshold '71 and non-Threshold groups failed to show a significant difference ($t=-0.220$; $df=106$, $p > .05$). While the non-Threshold group showed a slightly lower cumulative grade-point average ($\bar{X}$=2.120) than the Threshold '71 group ($\bar{X}$=2.144). It should be remembered that the non-Threshold mean does not include the seven students who failed to return the second semester.

Results of Testing Hypothesis Number Two

The exact null hypothesis tested in hypothesis number two was as follows:

> Ho_2 There is no statistically significant difference between the dropout rates reported by the freshmen Threshold '71 students and the dropout rates reported by the non-Threshold freshmen students who were attending the University of Oklahoma during the same period of time.

The second null hypothesis was tested by performing a z-test between the dropout percentages shown for the Threshold '71 students and the dropout percentages computed for the non-Threshold group. However, the number of dropouts reported

TABLE 4.2

A COMPARISON OF THE DROPOUT RATES OF THE THRESHOLD '71 STUDENTS AND THE NON-THRESHOLD STUDENTS

Group	Number of Students	Number of Dropouts	Percentage of Dropouts	z-Value
Threshold '71	58	1	1.724	
				z=2.143
Non-Threshold	58	7	12.069	
$z = 2.1430$; $p < .0162$				

(N=7) does not include those who transferred to other educational institutions.

The results presented in Table 4.2 show that the dropout percentages computed for the two groups were significantly different ($z = 2.143$; $p < .0162$). This result allowed the researcher to reject the null hypothesis number two and conclude that there was a significantly higher percentage of the non-Threshold freshman students who dropped out of college during the 1971-72 academic year (12.069 percent) than there were of the Threshold '71 students who dropped out of the Program during that same period of time (1.724 percent). The number of students in each sample, the number of dropouts, and the z-value are presented in Table 4.2.

Results of Testing Hypothesis Number Three

Null hypothesis number three was tested as follows:

Ho_3 There is no statistically significant difference between the Grade-Point Averages (GPA) reported by the freshmen Threshold '71 students and the GPA's reported by the Threshold '70 freshmen students who were attending the University of Oklahoma during comparable periods of time for successive academic years, 1970-71 and 1971-72.

The third hypothesis was tested by performing a student's t-test between the cumulative GPA's computed for the Threshold '70 students and the cumulative GPA's computed for the Threshold '71 students. The mean first-semester GPA, mean second-semester GPA, mean cumulative GPA, and the t-values are presented in Table 4.3. The actual raw data reported for each group of participants are presented in the appendices along with the means ($\overline{X}$) and standard deviations (S) of each measure taken.

The results presented in Table 4.3 show that one of the grade-point comparisons made was statistically significant but the other two were not. A comparison of the first-semester GPA's computed for the Threshold '70 and Threshold '71 groups showed a significant difference between the two ($t = 2.249$; $df=111$, $p < .05$). These results indicate that the Threshold '71 students had a significantly higher grade-point average at the end of the first semester than the Threshold '70 students were able to accomplish for that same period of time the preceding year (1970-71).

On the other hand, a comparison of the second-semester

TABLE 4.3

A COMPARISON OF THE GRADE-POINT AVERAGES RECORDED FOR THRESHOLD '70 STUDENTS AND THRESHOLD '71 STUDENTS

Grade-Point Averages	Threshold '70 Group	Threshold '71 Group	t-Values	Sign. Level
First-Semester GPA	1.939 (N=46)	2.249 (N=57)	2.2698	$<.05$
Second Semester GPA	2.134 (N=42)*	2.038 (N=57)	0.6420	$>.05$
Cumulative GPA	2.039 (N=42)*	2.144 (N=57)	-0.8571	$>.05$

*Four (4) of the Threshold '70 students dropped out of college at the end of the first semester and reduced the number of participants in that group to forty-two (42).

GPA's for these same two groups indicated that there was no significant difference between the means of the two groups ($t = 0.6420$; $df=97$, $p > .05$). The results of comparing the second-semester and cumulative GPA's of the Threshold '71 and Threshold '70 groups must receive an almost identical interpretation as that given to the results obtained from comparing the second-semester and cumulative GPA's of the non-Threshold and Threshold '71 groups. Again, these results do not imply that the Threshold '70 group had raised their grades to a level comparable to the Threshold '71 group during the second semester after having had significantly lower first-semester GPA's than the Threshold '71 group. Table 4.3 indicates that four (4) of the Threshold '70 students dropped

out of the Threshold Program after only one semester of college work. These four students were not included in the calculation of the second semester means. [The GPA of Threshold '70 students for first semester (N=46) $\overline{X}$ = 1.939; GPA of Threshold '70 students for second semester (N=42) $\overline{X}$=2.134].

A comparison of the cumulative grade-point averages of the Threshold '70 and Threshold '71 groups failed to show a significant difference ($t = -0.8571$; $df=97$, $p > .05$). The Threshold '71 group showed a slightly higher cumulative GPA ($\overline{X}$ = 2.144) than that computed for the Threshold '70 group ($\overline{X}$ = 2.039).

The Threshold '70 group had four (4) students who dropped out of the program after only one semester of college work while the Threshold '71 group managed to maintain its entire membership of fifty-seven (57) enrollees. A comparison of the percentage of dropouts experienced by each group is considered in hypothesis number four.

Results of Testing Hypothesis Number Four

The exact null hypothesis tested in hypothesis number four was as follows:

> Ho_4 There is no statistically significant difference between the dropout rates reported for the Threshold '70 students during the 1970-71 academic year and the dropout rates reported for the Threshold '71 students during the 1971-72 academic year at the University of Oklahoma.

The fourth null hypothesis was tested by performing a z-test between the dropout percentage shown for the Threshold '71 students and the dropout percentage computed for the

TABLE 4.4

A COMPARISON OF THE DROPOUT RATES OF THE THRESHOLD '70 STUDENTS AND THE THRESHOLD '71 STUDENTS

Group	Number of Students	Number of Dropouts	Percentage of Dropouts	z-Value
Threshold '70	56	14	25.00	
				z=3.858
Threshold '71	58	1	1.724	
$z = 3.858$, $p < .0001$				

Threshold '70 students. The number of students considered in each sample, the number of dropouts, the percentage of dropouts, and the z-value are presented in Table 4.4.

The results presented in Table 4.4 show that the dropout percentages computed for the two groups were significantly different ($z=3.858$; $p < .0001$). This result allowed the researcher to reject the null proposition of hypothesis number four and conclude that there was a significantly higher percentage of the Threshold '70 freshmen students who dropped out of college during the 1970-71 academic year (25.00 percent) than there were of Threshold '71 students who dropped out during a comparable period of time (1.724 percent) during the 1971-72 academic year.

Summary of Hypothesis Testing

The results of testing the four hypotheses showed that the Threshold '71 students had a significantly higher cumulative grade point average after one semester of college work than either the Threshold '70 group or the non-Threshold group. A comparison of the first-semester grade-point averages of the Threshold '71 students and the non-Threshold students in hypothesis number one showed that the Threshold '71 groups' GPA's were significantly higher than those reported for the non-Threshold participants ($t = 2.188$; $df=113, p < .05$).

In addition, a comparison of the first-semester GPA's of the two Threshold groups in hypothesis number three showed that the Threshold '71 students had earned a significantly higher grade-point average for their first semester of college work than the grade-point averages reported for the Threshold '70 participants for their first semester of college work ($t = 2.249$; $df=111$, $p < .05$).

At the same time, it was determined that a significantly greater number of the non-Threshold students and the Threshold '70 students had dropped out college during or immediately after their first semester of college work than the number of Threshold '71 students who dropped out of college for the same or a comparable period of time. The non-Threshold group showed a dropout percentage of 12.069 percent while the Threshold '71 group showed a dropout percentage of only 1.724 percent. A z-test between these two percentages showed that they were statistically different

($z = 2.143$; $p < .0162$).

The Threshold '70 group had experienced a dropout rate of 25.00 percent. When this figure was compared to the 1.724 percent experienced by the Threshold '71 group, the results showed that the number of dropouts from the Threshold '70 program was significantly greater than the number of students who dropped out of the Threshold '71 Program ($z = 3.858$; $p < .0001$).

These results indicated that the Threshold students have been able to perform as well academically as non-Threshold students at the University of Oklahoma who have been matched with the Threshold students on ACT scores and sex.

While the Threshold Program experienced a high percentage of dropouts during the 1970-71 academic year, this situation seems to have corrected itself and the dropout percentage dropped from 25.00 percent for the 1970-71 academic year to 1.724 percent for the 1971-72 academic year.

One point should be made concerning the difference in the number of dropouts experinced by the Threshold '70 and '71 groups. At least part of the difference would be attributed to the racial composition of the two groups. Dropouts among American Indians have traditionally run high in the data reported by most post-secondary educational institutions. This trend was substantiated by the dropout rates experienced by the Threshold '70 Program. Sixteen Indian students enrolled in the program and ten (10) dropped out either during or after the first semester. This number constitutes

over 70 percent of the total number of 14 dropouts. On the other hand, the Threshold '71 group had only eight (8) Indian students (See Table 4.5) but none dropped out of the program.

SECONDARY FINDINGS

Data collected from the confidential questionnaires were not used in testing the hypotheses, but were used to make a more thorough explanation of the results presented in Tables 4.1 through 4.4. The questionnaire data are presented in the four following sections: (1) Personal Data--race, sex, marital status, and birth order; (2) Biographical Data--living arrangements, hours worked (if any), financial aid arrangements, and whether the student has an automobile on campus or not; (3) Educational Data--major in college, the year the student graduated from high school, number of students in their high school graduating class, and ACT scores; (4) Occupational and Educational History of the Student's Family--occupation of father and mother, educational level of father and mother, and the number of brothers and sisters who have attended colleges or universities. Each of these sections of questionnaire data is presented in this part of the results. Each section is presented with the appropriate tables and descriptive statistics. A summary of the secondary findings is presented at the end of the last section and the questionnaire data are related to the hypothesis findings in the final chapter.

Personal Data of the Three Participating Groups

The first area of comparison of the questionnaire data was the area of Personal Data. This included the race, sex, marital status and birth order of the three groups. The data reported by each of the groups is presented in Tables 4.5 through 4.8.

The personal data presented in Tables 4.5 through 4.8 indicate two significant differences between the non-Threshold students and the Threshold students--race and marital status. An inspection of Table 4.5 will show that the two Threshold groups are composed almost entirely of Blacks and American Indians while the non-Threshold group is composed primarily of Whites. The differences between the numbers shown for each group were significant ($X^2 = 132.24$, df=4; $p < .001$). This difference in racial composition is an important factor since it is primarily responsible for the differences noted throughout the rest of the questionnaire data.

One other difference was noted in the personal data section. This was the difference in the numbers of the groups who were married. Table 4.7 shows that a significantly larger number of the non-Threshold students were married than the Threshold students ($X^2 = 9.966$, df=4; $p < .05$). This was probably a result of the non-Threshold students age--they were slightly older than the Threshold students.

TABLE 4.5

A COMPARISON OF THE RACIAL COMPOSITION OF THE THREE PARTICIPATING GROUPS

Ethnic Group	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Black	33	49	4
American Indian	16	8	1
Caucasian	2	1	53
Oriential	0	0	0
Spanish American	5	0	0
Other	0	0	0
Totals	56	58	58

$X^2 = 132.24$; df=6 $p < .001$

TABLE 4.6

A COMPARISON OF THE MALE-FEMALE RATIO OF THE THREE PARTICIPATING GROUPS

Group	Sex	
	Male	Female
Threshold '70	26	30
Threshold '71	34	24
Non-Threshold	34	24
Totals	94	78

$X^2 = 3.643$; df=2; $p > .05$

TABLE 4.7

A COMPARISON OF THE MARITAL STATUS OF THE THREE PARTICIPATING GROUPS

Marital Status	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Single	54	57	52
Married	1	0	6
Divorced	1	1	0
Totals	56	58	58

$X^2 = 9.9655$; df=4; $p < .05$

TABLE 4.8

A COMPARISON OF THE BIRTH-ORDER DATA FOR THE THREE GROUPS OF PARTICIPANTS

BIRTH ORDER	Groups		
	Threshold '70	Threshold '71	Non-Threshold
First Born	15	16	19
Second Born	11	14	24
Third Born	11	14	9
Fourth Born	6	6	4
Fifth Born	4	5	1
Sixth Born	5	1	1
Seventh Born	3	1	0
Eighth Born	0	0	0
Ninth Born	0	0	0
Tenth Born	1	1	0
Totals	56	58	58

Biographical Data of the Three Participating Groups

The biographical data presented in Tables 4.9 through 4.12 indicate three significant differences among the three groups. These differences were between the numbers of Threshold and non-Threshold students who lived in campus housing [There were significantly more Threshold than non-Threshold students who lived in campus housing (X^2 = 12.29, df=1; $p < .05$)]; (2) between the number of hours worked by the Threshold and non-Threshold students who were employed (Threshold '70; $\bar{X}$ = 15.85; Threshold '71; $\bar{X}$ = 17.84; Non-Threshold; $\bar{X}$ = 22.07) [However, it should be noted that the percentage of students who were working was slightly more than fifty percent (50.02 percent)]; (3) between the numbers of Threshold and non-Threshold students who were receiving financial aid from the University [There were significantly more Threshold students receiving financial aid (X^2 = 75.30; df=4; $p < .001$)]; and (4) between the numbers of Threshold and non-Threshold students who had cars on campus [There were significantly more cars on campus which were owned by the non-Threshold students than by the Threshold students (X^2 = 41.14; df=4; $p < .001$)]. These were the only significant differences noted among the biographical data reported by the three participating groups.

TABLE 4.9
A COMPARISON OF THOSE WHO LIVED IN CAMPUS HOUSING FOR THE THREE PARTICIPATING GROUPS

Response	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Yes	48	57	54
No	1	0	3
No Response	7	1	1
Totals	56	58	58

$X^2 = 12.29$; df=4; $p < .05$

TABLE 4.10
A COMPARISON OF THE HOURS WORKED BY THE THREE PARTICIPATING GROUPS

Hours Employed	Groups		
	Threshold '70	Threshold '71	Non-Threshold
00	0	2	0
1-10	0	2	2
11-20	24	25	15
21-30	2	2	9
31-40	0	0	4
Greater than 40	0	0	0
No Response or did not work	30	27	28
Totals	56	58	58
Mean	$\bar{X} = 15.85$	$\bar{X} = 17.84$	$\bar{X} = 22.07$
Standard Deviation	$S = 2.935$	$S = 6.773$	$S = 8.897$

TABLE 4.11
A COMPARISON OF THOSE WHO RECEIVED FINANCIAL AID OF THE THREE PARTICIPATING GROUPS

Received Financial Aid	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Yes	42	50	9
No	3	2	45
No Response	11	6	4
Totals	56	58	58

$X^2 = 76.30$; df=4; $p < .001$

TABLE 4.12
A COMPARISON OF THOSE WHO HAD A CAR ON CAMPUS OF THE THREE PARTICIPATING GROUPS

Car On Campus	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Yes	5	10	34
No	49	44	23
No Response	2	4	1
Totals	56	58	58

$X^2 = 41.15$; df=4; $p < .001$

Educational Data of the Three Participating Groups

The educational data reported by the three groups of participants are presented in Tables 4.13 through 4.16. No statistical differences were found among any of the group comparisons.

A comparison of the academic majors listed for the group participants shows that the Threshold students were fairly well distributed across the whole gamut of academic areas. While their choices appear to be somewhat different than those listed by the non-Threshold students, the differences among the numbers enrolled in each of the academic areas was not significant beyond the .05 level.

The numbers in the different groups' high school graduating classes were comparable even though the non-Threshold students showed slightly larger classes. The differences among the mean ACT scores were not significant at the .05 level, but this was anticipated since the researcher had purposely matched the ACT scores of the three groups of participants prior to the beginning of the experiment.

TABLE 4.13

A COMPARISON OF THE ACADEMIC MAJORS
THE THREE PARTICIPATING GROUPS

Academic Majors	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Accounting	2	3	1
Architecture	0	1	1
Art	1	0	1
Biochemistry	0	0	2
Biological Sciences	0	6	0
Biology	0	0	1
Business Administration	3	4	3
Business Education	4	8	0
Chemistry	0	0	1
Drama	0	1	1
Economics	1	0	1
Elementary Education	3	4	1
Engineering	1	2	1
English	1	1	3
Fashion Design	0	0	1
Fronch	1	0	1
Geography	0	0	1
History	2	4	4
Home Economics	1	2	1
Humanties	0	0	1
Journalism	1	2	0
Law Enforcement	1	1	1
Library Science	1	0	2
Marketing	0	1	0
Mathematics	4	3	2
Microbiology	0	0	1
Music	1	1	1
Pharmacy	1	2	1
Physical Education	0	1	1
Physical Therapy	1	0	4
Political Science	1	0	4
Psychology	2	2	3
Radio/Television	1	0	0
Science Education	1	0	0
Social Science	3	0	1
Social Work	1	0	3
Sociology	3	1	0
Spanish	0	0	1
Special Education	1	4	0
Speech	3	1	0
Undecided	8	3	7
Zoology	1	0	0
Totals	55	58	58

TABLE 4.14
A COMPARISON OF THE YEAR GRADUATED FROM HIGH SCHOOL OF THE THREE PARTICIPATING GROUPS

Year Graduated From High School	Groups		
	Threshold '70	Threshold '71	Non-Threshold
1965	0	1	1
1966	0	0	1
1967	1	0	0
1968	2	1	0
1969	0	0	1
1970	48	0	2
1971	0	55	53
Other	1	0	0
No Response	4	1	0
Totals	56	58	58

TABLE 4.15

A COMPARISON OF THE NUMBER IN HIGH SCHOOL CLASS FOR THE THREE GROUPS OF PARTICIPANTS

Number in High School Class	Groups		
	Threshold '70	Threshold '71	Non-Threshold
0 - 100	13	10	2
101 - 200	8	4	1
201 - 300	9	11	25
301 - 400	19	18	25
401 - 500	3	5	3
501 - 600	1	2	2
601 - 700	0	2	0
No Response	3	6	0
Totals	56	58	58
Mean	$\bar{X}$ = 242	$\bar{X}$ = 284	$\bar{X}$ = 309
Standard Deviation	S = 137	S = 152	S = 83

TABLE 4.16
A COMPARISON OF THE ACT SCORES OF THE THREE PARTICIPATING GROUPS

ACT SCORES	Groups		
	Threshold '70	Threshold '71	Non-Threshold
7	0	1	1
8	0	0	0
9	1	3	4
10	4	1	1
11	2	6	6
12	4	6	5
13	6	6	5
14	10	5	5
15	7	3	3
16	5	12	10
17	1	3	4
18	5	3	3
19	3	2	1
20	4	3	3
21	3	1	2
22	1	2	4
23	0	1	1
24	0	0	0
25	0	0	0
26	0	0	0
Totals	56	58	58
Mean	$\bar{X}$ = 15.20	$\bar{X}$ = 14.58	$\bar{X}$ = 15.12
Standard Deviation	S = 3.29	S = 3.55	S = 4.07

Occupational and Educational History of Students' Families

The final section of the confidential questionnaire was designed to determine the occupational level of the participants' parents as well as their educational level. Additional questions were also asked to determine the number of brothers and/or sisters who had attended colleges or universities. A comparison of the numbers reported by the three groups showed that most were significantly different. At the same time, these differences can be attributed primarily to the predominantly Caucasian nature of the non-Threshold group.

A significantly greater number of the non-Threshold students' fathers and mothers held professional and skilled positions than were held by the Threshold students' parents. This same finding was noted concerning the educational levels of the participants' fathers and mothers (Tables 4.19 and 4.20). On the other hand, there was no statistically significant difference among the numbers of brothers and sisters who had attended colleges and universities from the Threshold and non-Threshold groups.

TABLE 4.17

A COMPARISON OF THE PATERNAL OCCUPATIONS OF THE THREE PARTICIPATING GROUPS

Father's Occupation	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Professional	0	0	17
Skilled	21	20	28
Unskilled Labor	14	16	7
Retired	1	4	3
Deceased	3	3	2
Unemployed	10	9	0
Welfare	7	6	1
Totals	56	58	58

$X^2 = 35.72$; df=4; $p < .001$

TABLE 4.18

A COMPARISON OF THE MATERNAL OCCUPATIONS OF THE THREE PARTICIPATING GROUPS

Mother's Occupation	Groups		
	Threshold '70	Threshold '71	Non-Threshold
Professional	0	1	1
Skilled	17	14	30
Unskilled Labor	18	11	4
Housewife	10	16	21
Retired	3	0	1
Unemployed	5	12	0
Welfare	3	4	1
Totals	56	58	58

$X^2 = 2.71$; df=1; $p > .05$

TABLE 4.19

A COMPARISON OF THE PATERNAL EDUCATIONAL LEVELS OF THE THREE PARTICIPATING GROUPS

Father's Education	Groups		
	Threshold '70	Threshold '71	Non-Threshold
2 years	0	1	0
3 "	0	0	0
4 "	0	1	0
5 "	0	1	0
6 "	0	2	0
7 "	0	2	0
8 "	2	3	2
9 "	4	1	0
10 "	7	2	0
11 "	7	2	2
12 "	21	24	13
13 "	5	4	2
14 "	1	3	4
15 "	0	0	1
16 "	1	4	18
17 "	0	0	5
18 "	0	0	5
19 "	0	0	3
20 "	0	0	0
21 "	0	0	0
22 "	0	0	1
23 "	0	0	1
24 "	0	0	1
No Response	8	8	0
Totals	56	58	58
Mean	$\bar{X}$ = 11.38	$\bar{X}$ = 11.16	$\bar{X}$ = 15.17
Standard Deviation	S = 1.525	S = 3.019	S = 3.196

TABLE 4.20

A COMPARISON OF THE MATERNAL EDUCATIONAL LEVELS OF THE THREE PARTICIPATING GROUPS

Mother's Education	Groups		
	Threshold '70	Threshold '71	Non-Threshold
4 years	0	1	0
5 "	0	2	0
6 "	1	0	1
7 "	2	2	0
8 "	2	5	1
9 "	7	3	0
10 "	3	4	0
11 "	9	4	0
12 "	23	22	19
13 "	2	5	6
14 "	2	5	8
15 "	0	0	4
16 "	1	2	16
17 "	0	0	3
No Response	4	3	0
Totals	56	58	58
Mean	$\bar{X}$ = 11.04	$\bar{X}$ = 11.09	$\bar{X}$ = 13.78
Standard Deviation	S = 1.878	S = 2.548	S = 2.193

TABLE 4.21

A COMPARISON OF THE COLLEGE ATTENDANCE PATTERNS OF PARTICIPANTS' BROTHERS AND SISTERS

Number of Brothers Who Attended College	Groups		
	Threshold '70	Threshold '71	Non-Threshold
One	15	15	19
Two	1	7	8
Three	1	2	0
Four	0	4	0
Five	0	2	0
Six	0	0	0
Seven	0	0	0
Not Applicable or No Response	39	28	31
Totals	56	58	58

Number of Sisters Who Attended College	Threshold '70	Threshold '71	Non-Threshold
One	12	12	17
Two	5	5	6
Three	2	1	0
Four	0	0	0
Not Applicable or No Response	37	40	35
Totals	56	58	58

SYNTHESIS OF HYPOTHESES RESULTS AND SECONDARY FINDINGS

The results of testing the four hypotheses stated in Chapter I showed that the Threshold '71 students achieved higher grade-point averages for their first semester of college work than a group of Threshold '70 students and a group of non-Threshold students. Non-Threshold students all had been matched with the Threshold '71 group on Composite ACT scores and sex.

Two other hypotheses compared the dropout rates of the Threshold and non-Threshold students and the dropout rates of the Threshold '70 and Threshold '71 students. The results of these two hypotheses showed that the Threshold '71 students had significantly lower dropout rates than either the Threshold '70 students or the non-Threshold students.

The analysis of the secondary (questionnaire) data showed several significant differences between the Threshold and non-Threshold students but very few, if any, differences between the two Threshold groups. Most of these observed differences could be attributed directly or indirectly to the predominantly White nature of the non-Threshold group and the predominantly Black and Indian composition of the Threshold groups.

The major point to be made from the synthesis of the hypotheses results and the secondary findings is simply this:

While the non-Threshold students who participated in the study possessed all the biographical and social attributes which are generally considered to be conducive to obtaining a college education such as well-educated parents, higher socioeconomic status, etc., the high-risk students enrolled in the Threshold Program were able to maintain comparable grade-point averages with the non-Threshold students and to retain a higher percentage of their enrollees than the non-Threshold groups. This is not to say that the usual indicators of success in college are not valid. Rather it is to say that Special Service programs such as the Threshold Program which provide tutorial services, individual conseling and guidance, financial aid, etc. to "deserving" students can be an effective substitute for students who have not had the privilege of being reared by well-educated and affluent parents, attending high schools which have well-rounded and progressive curricula, or being afforded the generalized opportunities which are available to Whites but are conspicuously withdrawn from minority groups. The individual attention given to students through the Threshold Program has been more than effective in assisting high-risk, capable students to obtain college degrees. A further expansion of the conclusions drawn from the statistical results displayed in this Chapter is presented in the Conclusions section of Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FURTHER RESEARCH

The purpose of this study was to compare the grade-point averages and dropout rates of a group of randomly chosen freshmen students at the University of Oklahoma with the grade-point averages and dropout rates of high-risk, minority group freshmen students who were attending the University of Oklahoma during the same period of time. It had been established earlier that the overall effectiveness of the Threshold Program at the University of Oklahoma could be determined by a statistical comparison of grade-point averages and dropout rates of students enrolled in the program for the 1970-71 and the 1971-72 academic years and for students who were not enrolled in the Program during that same time, but who had been matched with the Threshold '71 students on composite ACT scores and sex.

First-semester, second-semester, and cumulative grade-point averages were computed as measures of academic progress for 51 non-Threshold students, 42 Threshold '70 students, and 57 Threshold '71 students. The Threshold '70 students were freshmen during the 1970-71 academic year, while the non-Threshold and Threshold '71 students were freshmen during the 1971-72 academic year. Dropout rates

were also determined for each of the three groups along with several biographical measure being taken on a Confidential Questionnaire (Appendix A).

The data collected were used to test four hypotheses concerning the first-semester, second-semester, and cumulative GPA's, and the dropout rates experienced by each of the groups. The first hypothesis was a comparison of the GPA's observed for the non-Threshold students and the Threshold '71 students. The second hypothesis compared the dropout percentages of these two groups. The third hypothesis was a comparison of the GPA's of the Threshold '70 students and the GPA's of the Threshold '71 students, while the fourth hypothesis contrasted the dropout rates of these two groups.

The results obtained in comparing these various measures are presented in Tables 4.1 through 4.4 or Chapter IV. A summary of the results obtained in the hypothesis testing procedures showed that the Threshold '71 group had a lower dropout percentage than either the Threshold '70 group or the non-Threshold group. The Threshold '71 students also showed a significantly higher GPA for their first semester of college work than either the non-Threshold or Threshold '70 groups.

The generalized conclusions drawn from these results are presented in this chapter of the dissertation along with several implications for further research studies. The final section of the chapter is devoted to concluding remarks about the possible benefits of the study results and incorporation

of the findings into the present Special Services Program at the University of Oklahoma.

CONCLUSIONS DRAWN FROM HYPOTHESIS RESULTS

The conclusions presented in the following section are a direct and logical implication of the results obtained in testing the four hypotheses. In other words, the conclusions are generalized explanations of the results obtained from testing each of the hypotheses. It should further be noted that the researcher has carefully avoided drawing conclusions which cannot be substantiated by the data presented in the body of the research paper. While there are many speculative inferences which could easily be made from the results presented, such inferences cannot be regarded as conclusions since they cannot be supported by the results obtained in the study. The conclusions which could be logically drawn and empirically supported from the results of testing the four hypotheses were as follows:

1. From the results of testing hypothesis number one, presented in Table 4.1, it was concluded that there was a significant difference in the academic achievement of the Threshold '71 and non-Threshold students who participated in the study for the first semester of their freshman year. It was further concluded that the services offered by the Threshold Program were effective aids to the predominantly Black and

Indian enrollment of the Threshold Program. It was further concluded that most, if not all, of the differences observed between the various biographical measures taken on the Threshold and non-Threshold participants could be attributed to the predominantly White nature of the non-Threshold group and the predominantly Black and Indian nature of the two Threshold groups.

2. From the results of testing hypothesis number two, presented in Table 4.2, it was concluded that there was a significantly higher percentage of the non-Threshold group of freshmen who dropped out of the University of Oklahoma during the 1971-72 academic year than the percentage of freshmen who dropped out of the Threshold '71 Program at the University of Oklahoma during that same period of time. It was further concluded that the services offered by the Threshold Program were effective in preventing the dropout of enrollees.

3. From the results of testing hypothesis number three, presented in Table 4.3, it was concluded that the Threshold '71 group had significantly higher academic achievement for their first semester of college work than the Threshold '70

group. It was further concluded that the lack of significant differences between the two groups' cumulative and second-semester GPA's could be attributed primarily to the dropping of the poorer (academically) students from the Threshold '70 group at the end of the first semester. It was further concluded that the similarities noted between the biographical measures taken on the Threshold '70 and Threshold '71 students could be attributed primarily to the race and socioeconomic similarities of the two groups. It was further concluded that the services offered by the Threshold Program were effective in preventing the dropout of enrollees and assisting program participants in maintaining acceptable academic standards at the same time.

4. From the results of testing hypothesis number four, presented in Table 4.4, it was concluded that there was a significant difference in the percentage of dropouts experienced by the Threshold '70 Program and the Threshold '71 Program. It was further concluded that the following improvements in the Threshold Program were conducive to a much higher retention rate for the Threshold '71 Program than

for the Threshold '70 Program:

(1) Improved tutorial program: There was a limited number of well-qualified tutors for the Threshold '70 Program, but there were many more qualified personnel to choose from when the Threshold '71 staff was chosen.

(2) Improved Administrative procedures: Even though the budget was reduced from the Threshold '70 Program to the Threshold '71 Program, the re-assignment of duties proved to be much more efficient and effective for the Program.

(3) Improved orientation procedures: The Threshold '71 students were required to attend the regular orientation sessions conducted for all freshmen students at the University of Oklahoma. However, the Threshold '70 students were not required to attend these orientation sessions.

(4) Staff experience: The first year of the Threshold Program gave the Threshold staff a wealth of experience which was very beneficial in conducting the second year of the Threshold Program (1971-72 academic year).

(5) More Experienced Counselors: Three new counselors were employed for the Threshold '71 Program. These counselors were much more experienced and were much better qualified than those who worked as counselors in the Threshold '70 Program.

IMPLICATIONS FOR FURTHER RESEARCH

Through the conduct of the present study, many more questions arose than were answered by the results obtained. Most of these questions, if developed properly, could result in worthwhile research efforts in the future. An attempt to classify the implications for future research efforts resulted in three general categories: (1) studies which would be conducted in a similar manner but using different populations of students, (2) studies which would be conducted in a similar manner but using different criteria for determining the success of college freshmen, and (3) studies which would be conducted in a similar manner but which would use different variables and/or conditions. Specific implications for further research are in the following sections.

The first possibility for future research efforts would be to compare the data from a group of non-Threshold participants who have been carefully matched with the Threshold participants on such factors as race, age, socioeconomic status, etc. In the present study, there was a wide discrepancy in the numbers of persons representing the different races in the Threshold and non-Threshold groups. Results of the literature search and the comparisons made on the secondary data suggest that the participants' race does make a difference in success in college.

A second possibility for future research would be to establish different criteria for determining success in

college. Other possible measures of success in college would be to have each student make ratings of his peers in several different academic, social, and personal areas. While these measures are less defensible than grade-point averages, they could give a more realistic appraisal of the participants' actual success in college.

A final possibility for further research efforts would be to compare the results reported by the Threshold '70 and Threshold '71 groups with the results reported by comparable programs throughout the United States. Comparisons could be made by dropout rates, GPA's, or certain biographical measures according to the type of information sought by the researcher. This would not only improve the individual programs but would maximize the educational opportunities of the Program participants.

Concluding Remarks

This study was a comparison of the grade-point averages and dropout rates of three different groups of freshmen enrolled at the University of Oklahoma. One of these groups, the Threshold '70 students, attended classes during the 1970-71 academic year. The other two groups, the Threshold '71 participants and the non-Threshold students, were enrolled for the 1971-72 academic year. Results of the comparisons showed that the Threshold '71 students had the lowest dropout percentages, and the highest first-semester grade-point averages of the three groups.

The researcher feels that the overall purpose and results should be reiterated to avoid any misinterpretation or over-generalization of the findings. While these results are most encouraging, they should be generalized to other programs of this nature with extreme caution unless the race, sex, socioeconomic status, and ACT scores of the two groups are comparable.

Every researcher anticipates that his research efforts will serve as a catalyst for further studies in a particular area or discipline. If the results obtained in this study are instrumental in promoting such research efforts, the ultimate result would no doubt be a significant improvement in college and university admission and retention policies and practices. This would be especially true as these policies and practices relate to high-risk minority students who qualify for special services programs, but all college students would benefit to some extent. In either case, if this study is instrumental in promoting such improvements, it will have served its purpose well.

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APPENDIX A

THE BIOGRAPHICAL DATA-COLLECTION INSTRUMENT: CONFIDENTIAL SURVEY QUESTIONNAIRE

APPENDIX A

CONFIDENTIAL SURVEY QUESTIONNAIRE

1. Birth Order: 1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th (Circle One)
2. Sex: M F
3. Resident of Oklahoma? YES NO
4. Marital Status: Single Married Divorced Widowed
5. Have you been employed while attending college? YES NO
   a. If so, how many hours per week did you work?_____
6. Ethnic Background:

   1. _____Afro-American
   2. _____Spanish Surnamed American
   3. _____American Indian
   4. _____Oriental American
   5. _____Caucasian

7. Did you live in campus housing during the:

   a. Fall 1970 _____YES _____NO
   b. Spring 1971 _____YES _____NO
   c. Fall 1971 _____YES _____NO
   d. Spring 1972 _____YES _____NO

8. Have you received financial aid from the University of Oklahoma? _____YES _____NO
9. Parents' Occupation: a. Mother:_____ b. Father:_____
10. Educational level of parents: (Circle the last year completed)

    Father . . . . .1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 more____
    Mother . . . .1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 more____

11. Number of brothers and sisters who have attended college: _____
12. Indicate the number of years each brother and/or sister attended college. (Circle each)

    (1) Brother or sister? Number of years attended: _____
    (2) Brother or sister? Number of years attended: _____
    (3) Brother or sister? Number of years attended: _____
    (4) Brother or sister? Number of years attended: _____
    (5) Brother or sister? Number of years attended: _____
    (6) Brother or sister? Number of years attended: _____
    (7) Brother or sister? Number of years attended: _____
    (8) Brother or sister? Number of years attended: _____

13. Year you graduated from high school: _____
14. Size of high school graduating class: _____
15. Composite ACT score: _____(If Known)
16. Indicate the number of hours of enrollment for each of the following periods:

    Fall 1970: _____hours Fall 1971: _____hours
    Spring 1971: _____hours Spring 1972: _____hours

17. Present or proposed major: _____
18. Do you have a car on campus? _____YES _____NO

APPENDIX B

PRELIMINARY CORRESPONDENCE TO PARTICIPANTS

APPENDIX B

Dear _____:

It is my sincere hope that you will consider this research worthy of your thought and time and participate through the completion of the enclosed questionnaire. It is very important that you be included in the study. Please be assured that your answers will be kept completely confidential. No one outside myself will be able to identify specific persons. All findings will be reported in aggregate form.

This is a small and selective sampling, therefore your response is critical if this study is to have any meaning. Please return the questionnaire at your earliest convenience, but prior to _____.

This study is being conducted in partial fulfillment of the requirements for the Doctorate in Education at the University of Oklahoma. Your help and co-operation in making this study a success will be greatly appreciated.

Enclosed is a self-addressed stamped envelope for forwarding this questionnaire.

Sincerely Yours,

Anthony V. Bliss
530 Elm Street
Norman, Oklahoma 73069

APPENDIX C

FIRST-SEMESTER, SECOND-SEMESTER, AND CUMULATIVE GRADE-POINT AVERAGES OF THRESHOLD '70 PARTICIPANTS

APPENDIX C

TABLE 4.22

GRADE-POINT-AVERAGES (GPA) RECORDED FOR THRESHOLD '70 PARTICIPANTS

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
1.	1.13	1.67	1.41
2.	2.00	2.00	2.00
3.	2.38	1.94	2.16
4.	2.00	1.00	1.61
5.	1.27	2.00	1.92
6.	1.29	1.00	0.53
7.	2.30	3.23	2.50
8.	2.33	2.93	2.62
9.	1.92	2.31	2.14
10.	1.67	2.15	2.20
11.	1.75	2.07	1.92
12.	1.57	1.13	1.21
13.	2.00	1.88	1.87
14.	2.75	2.00	2.43
15.	2.29	2.33	2.31
16.	2.71	2.29	2.50
17.	2.00	2.60	2.00
18.	2.75	2.49	2.45
19.	0.43	0.71	0.92
20.	2.00	2.09	1.11
21.	2.46	3.31	2.88

----------Table 4.22 Cont'd on Following Page----------

APPENDIX C Continued

---------- Table 4.22 Cont'd ----------

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
22.	1.54	3.00	2.14
23.	3.14	2.21	2.68
24.	1.64	2.20	1.96
25.	2.33	1.75	1.81
26.	2.30	1.29	1.85
27.	2.00	2.25	2.13
28.	3.25	2.64	2.92
29.	1.39	1.00	1.19
30.	2.79	3.50	3.00
31.	2.77	3.10	2.91
32.	2.92	3.00	2.67
33.	2.29	2.67	2.21
34.	2.50	1.58	2.04
35.	0.86	1.46	1.26
36.	2.00	2.43	2.31
37.	1.07	1.69	1.37
38.	1.33	0.55	0.90
39.	2.25	3.00	2.64
40.	2.33	1.45	1.91
41.	2.29	2.36	2.68
42.	2.00	2.38	2.36
43.	1.06	----	----

--------- Table 4.22 Cont'd on Following Page----------

APPENDIX C Continued

Table 4.22 Cont'd

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
44.	1.12	----	----
45.	0.56	----	----
46.	0.46	----	----
Mean ($\bar{X}$)	1.9389	2.1343	2.0388
Std. Dev. (S)	.6894	.4612	.5993
Variance (S^2)	.4753	.6791	.3591

APPENDIX D

FIRST-SEMESTER, SECOND-SEMESTER, AND CUMULATIVE GRADE-POINT AVERAGES OF THRESHOLD '71 PARTICIPANTS

APPENDIX D

TABLE 4.23

GRADE-POINT-AVERAGES (GPA) RECORDED FOR THRESHOLD '71 PARTICIPANTS

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
1.	1.71	0.54	1.96
2.	1.00	1.75	1.43
3.	1.75	2.45	2.09
4.	1.50	1.15	2.09
5.	2.33	2.00	2.22
6.	2.42	4.00	3.04
7.	2.25	2.00	2.14
8.	3.09	3.80	3.55
9.	2.80	2.62	2.71
10.	1.69	0.92	1.31
11.	2.21	2.60	2.03
12.	2.00	2.44	2.27
13.	1.80	2.75	2.00
14.	3.00	1.86	2.38
15.	2.75	1.79	2.23
16.	1.75	2.54	1.68
17.	2.00	2.14	2.06
18.	2.67	3.15	2.84
19.	2.23	1.82	2.04
20.	2.00	0.50	1.14
21.	0.82	1.82	1.32

---------- Table 4.23 Cont'd on Following Page ----------

APPENDIX D Continued

---------- Table 4.23 Cont'd ----------

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
22.	1.59	2.70	2.00
23.	2.50	0.80	1.56
24.	2.06	2.54	2.28
25.	2.20	0.75	1.41
26.	0.90	0.64	1.22
27.	3.26	3.54	3.38
28.	3.63	3.13	3.28
29.	3.75	2.00	2.81
30.	1.67	2.00	1.81
31.	1.43	1.36	1.39
32.	2.63	2.30	2.25
33.	2.88	1.46	2.24
34.	1.17	1.00	1.10
35.	2.57	1.93	2.31
36.	2.00	1.67	1.80
37.	4.00	3.04	3.56
38.	2.50	2.00	2.14
39.	2.30	2.90	2.52
40.	2.50	2.62	2.55
41.	1.86	1.40	1.62
42.	2.75	1.10	2.00
43.	2.33	2.00	2.19

---------- Table 4.23 Cont'd on Following Page ----------

APPENDIX D Continued

Table 4.23 Cont'd

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
44.	2.00	1.50	1.75
45.	2.00	2.50	2.27
46.	2.00	2.00	2.00
47.	1.58	2.08	1.78
48.	3.00	3.25	3.14
49.	1.67	0.64	1.22
50.	2.33	2.33	2.00
51.	2.00	2.00	1.90
52.	3.17	2.14	2.72
53.	1.50	1.64	1.58
54.	2.50	2.54	2.46
55.	3.00	1.75	2.55
56.	2.50	2.14	2.44
57.	2.67	1.14	2.44
Mean ($\bar{X}$)	2.2485	2.0380	2.1438
Std. Dev. (S)	.6702	.7966	.5893
Variance (S^2)	.4493	.6346	.3473

APPENDIX E

FIRST-SEMESTER, SECOND-SEMESTER, AND CUMULATIVE GRADE-POINT AVERAGES OF NON-THRESHOLD PARTICIPANTS

APPENDIX E

TABLE 4.24

GRADE-POINT-AVERAGES (GPA) RECORDED FOR NON-THRESHOLD PARTICIPANTS

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
1.	2.08	2.60	2.36
2.	2.07	3.17	2.61
3.	2.88	1.73	2.41
4.	1.53	2.10	1.76
5.	2.08	1.23	1.65
6.	3.25	3.50	3.38
7.	1.15	0.27	0.75
8.	2.09	2.21	2.16
9.	1.57	2.67	2.14
10.	2.36	2.22	2.20
11.	1.09	2.15	1.67
12.	1.07	1.91	1.44
13.	1.75	1.64	1.72
14.	2.17	1.75	2.00
15.	2.00	2.13	2.07
16.	2.28	1.70	2.09
17.	1.75	2.57	2.19
18.	1.33	2.15	1.76
19.	1.50	2.00	1.83
20.	2.77	2.56	2.66
21.	2.50	2.27	2.37

---------- Table 4.24 Cont'd on Following Page ----------

APPENDIX E Continued

---------- Table 4.24 Cont'd ----------

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
22.	1.80	1.50	1.67
23.	2.43	1.44	1.90
24.	2.00	1.80	1.88
25.	2.00	2.09	2.05
26.	3.14	2.80	2.97
27.	2.00	3.13	2.31
28.	2.75	3.50	3.15
29.	2.00	2.21	2.13
30.	1.86	1.63	1.73
31.	2.80	2.43	2.58
32.	1.80	1.40	1.60
33.	1.86	1.19	1.21
34.	1.33	1.00	1.14
35.	1.50	2.18	1.83
36.	2.25	1.67	1.93
37.	2.71	2.93	2.83
38.	2.50	2.00	2.22
39.	2.42	1.87	2.00
40.	2.08	2.14	2.10
41.	3.00	3.00	3.00
42.	1.65	2.13	1.79
43.	2.29	2.38	2.52
44.	2.93	2.36	2.64

---------- Table 4.24 Cont'd on Following Page ----------

APPENDIX E Continued

Table 4.24 Cont'd

Student Number	1st Sem. GPA	2nd Sem. GPA	Cumulative GPA
45.	2.93	2.40	2.66
46.	1.50	2.33	2.21
47.	1.24	1.19	1.21
48.	2.20	2.58	2.37
49.	3.26	2.00	2.68
50.	2.21	2.07	2.14
51.	2.21	2.64	2.46
52.	1.19	----	----
53.	0.72	----	----
54.	0.38	----	----
55.	1.10	----	----
56.	0.56	----	----
57.	1.64	----	----
58.	0.85	----	----
Mean ($\bar{X}$)	1.9717	2.1278	2.1201
Std. Dev. (S)	.6732	.6199	.5198
Variance (S^2)	.4532	.3843	.2702

APPENDIX F

IBM CARD FORMAT OF THE QUESTIONNAIRE DATA COLLECTED FROM THE THREE GROUPS OF PARTICIPANTS

APPENDIX F

IBM CARD FORMAT

Information	c.c.	Range of Possible Values
1. Questionnaire Number	1 - 3	001-175
2. Group Number	4	1-4
3. Birth Order	5 - 6	01-10
4. Sex	7	1-2
5. Resident of Oklahoma Yes - Y No - N	8	Y = Yes N = No
6. Marital Status Married - M Single - S Widowed - W Divorced - D	9	M = Married S = Single W = Widowed D = Divorced
7. Hours employed while attending College	10-11	00-40
8. Ethnic Background Afro American - 1 American Indian - 2 Caucasian - 3 Oriential - 4 Spanish - 5 Other - 6	12	1-6
9. Live in Campus Housing Yes - Y No - N	13	Y = Yes N = No
10. Received Financial Aid Yes - Y No - N	14	Y = Yes N = No
11. Mother's Occupation Housewife - H Unemployed - U Retired - R Professional - P Skilled - S Unskilled Labor - L Deceased - D Welfare - W	15	H = Housewife U = Unemployed R = Retired P = Professional S = Skilled L = Unskilled Labor D = Deceased W = Welfare

Cont'd on following page

APPENDIX F (Cont'd)

IBM CARD FORMAT (Cont'd)

Information	c.c.	Range of Possible Values
12. Father's Occupation Unemployed - U Retired - R Professional - P Skilled - S Unskilled Labor - L Deceased - D Welfare - W	16	U = Unemployed R = Retired P = Professional S = Skilled L = Unskilled Labor D = Deceased W= Welfare
13. Educational Level of Mother	17-18	01-20
14. Educational Level of Father	19-20	01-20
15. Number of Brothers and Sisters who attended college	21-22	1-9
16. Number of Brothers who attended college	23	1-9
17. Total Number of years Brother(s) attended College	24-25	00-25
18. Number of Sisters who attended college	26	1-9
19. Total Number of years Sister(s) attended College	27-28	00-25
20. Year Graduated from High School (example: 1971-71)	29-30	55-72
21. Number in your Graduating Class	31-33	039-999
22. ACT Score	34-35	07-26
23. Major Code	36-39	0411-5268
24. Do you have a car on campus? Yes - Y No - N	40	Y = Yes N = No
25. First Grade Point Average	41-43	000-400
26. Second Grade Point Average	44-46	000-400
27. Cumulative Grade Point Average	47-49	000-400

*Card Column