A COMPARISON OF CERTAIN FACTORS IN STUDENTS
WITH AND WITHOUT FINANCIAL AID AT
AUSTIN COLLEGE

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

James B. Winder, B. S., M. Ed.
Denton, Texas
August, 1972

This study compares certain factors of Austin College financial aid recipients to the same factors in their classmates who received no financial assistance. First, this study attempts to determine whether there are significant differences in selected variables between these two groups. Second, the study seeks to identify the causes for students' withdrawing from the College.

Subjects were randomly selected from two groups: (1) 100 subjects receiving financial assistance; and (2) 100 subjects not receiving such assistance.

The sources of data for this study were students’ records located in the Educational Advising Center, the Records Office, and the Counseling Center.

Two statistical techniques were utilized in analyzing the data: the t-test for two independent samples and the chi-square test for goodness of fit. It was determined that students receiving financial assistance showed no significant difference as compared to students not receiving financial assistance on the following variables: (1) mean grade-point average; (2) academic course load; (3) intramural athletics
reasons for withdrawal were a poor academic record, the participation; (4) convocation attendance; (5) Basic Decisions group leadership participation; (6) elected leadership of peer groups; (7) Open-House Program participation; (8) Austin Scholar membership; (9) inter-institutional program utilization; (10) summer school credits at other colleges; (11) Departmental Honors Program participation; (12) courses audited; (13) students who major in visual and creative arts; (14) cultural events participation; (15) students who are placed on disciplinary probation or suspension; (16) pre-professional course-of-study interest; and (17) class absences due to illness. However, the financial aid recipients did show significantly greater statistics than did the non-recipients in the following factors: (1) hours in study outside the classrooms; (2) conferences with teachers and advisor; (3) Cooperative Campus Ministry participation; (4) profitable experiences from the Basic Decisions program; and (5) retention rate. On the other hand, the non-recipients rated higher than the recipients on the following variables: (1) independent study involvement (the significance of difference on this variable was in the opposite direction from that of the hypothesis); (2) enrollment in international programs; and (3) participation in off-campus January-term courses.

Finally, this study reveals that only non-recipients of financial aid withdrew from the College. Their stated reasons for withdrawal were a poor academic record, the
wish to attend a larger school, the high cost of attending the College, a change of academic program, inflexibility of College rules, acceptance of full-time employment, and illness in the family.

It is recommended that further study, similar in design to this study, be extended to include conferences with students to determine cause-and-effect relationships. For example, further study could determine whether non-economic factors in the student's home environment might affect variables similar to those of this study. Such further study might consider the following factors: geographic location, religious preference, parents' educational background, parents' occupation, parents' age, race, number of siblings, position of subject among siblings, and out-of-school responsibilities of subject while in high school.
TABLE OF CONTENTS

LIST OF TABLES ........................................... v

Chapter

I. INTRODUCTION ...................................... 1
   Statement of the Problem
   Purposes of the Study
   Hypotheses
   Background and Significance
   Definition of Terms
   Basic Assumptions
   Delimitations of the Study
   Procedures for Collection of Data
   Procedures for Treatment of Data
   Organization of Remainder of the Study

II. SURVEY OF RELATED LITERATURE ................. 31

III. METHODS AND PROCEDURES ....................... 45
   Subjects
   Design of the Study
   Procedures for Collection of Data
   Procedures for Analysis of Data

IV. STATISTICAL ANALYSIS OF DATA .................. 50
   Hypothesis 1
   Hypothesis 2
   Hypothesis 3
   Hypothesis 4
   Hypothesis 5
   Hypothesis 6
   Hypothesis 7
   Hypothesis 8
   Hypothesis 9
   Hypothesis 10
   Summary
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. A Comparison of the Mean Grade Point Average for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
<td>51</td>
</tr>
<tr>
<td>II. A Comparison of the Number of Hours in Study Each Week Outside the Classroom for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
<td>52</td>
</tr>
<tr>
<td>III. A Comparison of the Number of Individual Conferences Each Semester with Faculty and Advisor for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
<td>52</td>
</tr>
<tr>
<td>IV. A Comparison of the Number of Students Enrolled in Full Academic Course Load (Four Courses) for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
<td>53</td>
</tr>
<tr>
<td>V. A Comparison of the Number of Students Participating in Intramural Athletics for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
<td>54</td>
</tr>
<tr>
<td>VI. A Comparison of the Number of Students Serving As Basic Decision Leaders for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
<td>55</td>
</tr>
<tr>
<td>VII. A Comparison of the Number of Students Who Attend More Than the Minimum Required Number of Convocations (Five per Semester) for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
<td>56</td>
</tr>
<tr>
<td>VIII.</td>
<td>A Comparison of the Number of Students Who Serve in Peer-Group Elected Positions For Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
<tr>
<td>IX.</td>
<td>A Comparison of the Number of Students Who Participate in the Cooperative Campus Ministry for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
<tr>
<td>X.</td>
<td>A Comparison of the Number of Students Who Participate in the Open-House Program in the Residence Halls for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
<tr>
<td>XI.</td>
<td>A Comparison of the Number of Students Who Enroll in Independent or Directed Study Courses for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
<tr>
<td>XII.</td>
<td>A Comparison of the Number of Students in the Austin Scholars Program for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
<tr>
<td>XIII.</td>
<td>A Comparison of the Number of Students Involved with Inter-Institutional Cooperative Programs for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
<tr>
<td>XIV.</td>
<td>A Comparison of the Number of Students Who Receive Summer School Credit at Other Colleges for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
<tr>
<td>XV.</td>
<td>A Comparison of the Number of Students Who Participate in the Departmental Honors Program for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance</td>
</tr>
</tbody>
</table>
Table

| Page |
|------------------|----------|
| XVI. A Comparison of the Number of Students Who Participated in an International Program for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 63 |
| XVII. A Comparison of the Number of Students Who Participated in an Off-Campus January-Term Course for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 64 |
| XVIII. A Comparison of the Number of Students Who Audited One or More Courses for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 65 |
| XIX. A Comparison of the Number of Students Concentrating in the Visual and Creative Arts for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 66 |
| XX. A Comparison of the Number of Students Who Participate in Cultural Appreciation Events for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 67 |
| XXI. A Comparison of the Number of Students Who Evaluated Their Experience in the Basic Decisions Program As Helpful or Very Helpful for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 67 |
| XXII. A Comparison of the Number of Students Who Had Not Been Placed on Community Probation or Suspension for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 68 |
| XXIII. A Comparison of the Number of Students Who Had an Interest in a Pre-Professional Program for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 69 |
Table | Page
--- | ---
XXIV. A Comparison of the Number of Students Missing Classes Due to Illness for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 70
XXV. Reasons Given by Non-Returning Students Receiving Financial Assistance and Non-Returning Students Not Receiving Financial Assistance | 71
XXVI. A Comparison of the Number of Students Who Withdrew from the College for Students Receiving Financial Assistance and Students Not Receiving Financial Assistance | 72
CHAPTER I

INTRODUCTION

Since 1954, the enrollment of colleges and universities in the United States has doubled. During the same period, college students' expenses in public institutions have increased on the average by almost 50 per cent and are continuing to increase each year. From 1954 to 1972, tuition fees in many private institutions increased from $500 per academic year to $2,500. If this trend continues, it is feared that many private institutions and some high-cost public institutions might be seriously hurt (11, p. 2).

The more cynical observers of higher education predict that 200 to 600 private colleges will disappear or go public in the decade of the 1970's (3, p. 12). In order for the private college to continue to survive, it must become distinctive enough to justify its comparatively high tuition (3, p. 13).

The federal and state governments have helped significantly in making a post-secondary education available to any young men or women with the ability to profit from such education. The significant amounts of federal monies, when added to existing institutional, state, and private funds, bring the nation much closer to the elimination of financial barriers to post-secondary and higher education.
and, therefore, much closer to equality of opportunity through education for all citizens (13, p. vii).

Austin College recognizes the need for a continuous and active program of student recruitment to assure an enrollment of the desired quality and quantity. Priority in student selection is given to qualified students who desire an education and have the potential for success at Austin College regardless of the economic conditions of their families (2, p. 4).

Like most private liberal arts colleges and universities, Austin College has a basic charge (tuition and room and board) which far exceeds that of most public colleges and universities. One factor which can compensate for this difference in charges is financial aid and scholarships. In order to prevent Austin College from being a place for only the affluent student, substantial amounts of money are budgeted for the student aid program. In selecting students to receive financial aid, the College places emphasis on financial need combined with academic achievement, leadership potential, character and prospects of future accomplishments (2, p. 8).

Approximately 45 per cent of the 1100 undergraduates enrolled in Austin College receive financial assistance. This ratio is average among the private colleges and universities in the United States.
In light of the fact that many institutions are in financial difficulty, a study of selected factors in students who receive financial assistance as compared to the students who do not receive financial assistance can be helpful in aiding those institutions in bringing their expenditures and income into balance.

Statement of the Problem

The problem of this study was to compare the students receiving financial assistance with students not receiving such assistance in relation to selected factors during the period of their enrollment at Austin College.

Purposes of the Study

The purposes of this study were to compare the students who received financial assistance, and those students who did not receive aid in the following ways:

1. Academic achievement levels as indicated by grade-point average.

2. Degree of academic preparation in determining (a) the number of hours in study outside the classroom, (b) the number of individual conferences with faculty and advisor, and (c) the number of students enrolled in a full academic course load (four courses).

3. Degree of student involvement in the coordinate curriculum in determining the number of students (a) who participated in intramural athletics, (b) who served as
Basic Decisions group leaders, (c) who attended more than the minimum required number of weekly convocations, (d) who served in peer-group elected positions (student government, honor system, intramural athletics, residence halls, departmental honor societies, fraternities, and sororities), (e) who took part in the Cooperative Campus Minstry, and (f) who participated in the open-house program in the residence halls.

4. Involvement in the flexible academic opportunities in determining the number of students (a) who took independent or directed study courses, (b) who enrolled in the Austin Scholars Program, (c) who participated in an international program (d) who participated in an off-campus January-term course, (e) who utilized the inter-institutional cooperative programs, (f) who audited one or more courses, (g) who received course credit(s) on other college campuses during the summer, and (h) who participated in the Departmental Honors Program.

5. Participation in aesthetic opportunities in determining the number of students (a) who concentrated in the visual and creative arts, and (b) who were involved in cultural appreciation opportunities.

6. Degree of achievement in the coordinate curriculum in determining the number of students (a) who evaluated the Basic Decisions Program as helpful or very helpful, and (b) who were placed on community probation or suspension.
7. Interest in pre-professional course of studies in determining the number of students who expressed a desire to be admitted to a professional graduate or undergraduate school.

8. Physical health of students as determined by the number of times they missed classes due to illness, by checking into the student infirmary.

9. Number of students who withdrew from the College and the reasons they withdrew as given by the students.

Hypotheses

The following hypotheses were formulated in this study:

1. The mean grade point average of the students receiving financial assistance will be significantly higher than those not receiving financial assistance.

2. Students who receive financial assistance will have a significantly higher degree of academic preparation than those not receiving financial assistance, as determined by the following:

(a) mean number of hours in study outside the classroom;
(b) mean number of individual conferences with faculty and advisor;
(c) number of students enrolled in a full academic course load (four courses).
3. Students who receive financial assistance will have a significantly higher degree of involvement than those not receiving financial assistance in the coordinate curriculum as determined by the number of students
(a) who are involved in intramural athletics,
(b) who serve as Basic Decisions group leaders,
(c) who attend more than the minimum required number of weekly convocations,
(d) who serve in peer-group elected positions,
(e) who participate in the Cooperative Campus Ministry, and
(f) who participate in the Open-House Program in the residence halls.

4. Students who receive financial assistance will have a significantly higher degree of involvement than those not receiving financial assistance in the flexible academic opportunities as determined by the number of students
(a) who enroll in independent or directed study courses,
(b) who are members of the Austin Scholars Program,
(c) who are involved with the inter-institutional cooperative programs,
(d) who receive course credits on other college campuses during the summer, and
(e) who participate in the Departmental Honors Program.
5. Students who do not receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those receiving financial assistance as determined by the number of students (a) who have participated in an international program, (b) who have participated in an off-campus January-term course, and (c) who have audited one or more courses.

6. Students who do not receive financial assistance will have a significantly higher degree of participation in aesthetic opportunities than those receiving financial assistance as determined by the number of students (a) who are concentrating in the visual and creative arts, and (b) who participate in cultural appreciation events.

7. Students who receive financial assistance will have a significantly higher degree of achievement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students (a) who evaluated the Basic Decisions Program as helpful or very helpful, and (b) who have not been placed on community probation or suspension.
8. The number of students interested in a pre-professional course of study who do not receive financial assistance will be significantly higher than those receiving financial assistance.

9. The number of students not receiving financial assistance who miss classes due to illness will be significantly higher than those receiving financial assistance.

10. The number of students not receiving financial assistance who withdrew from the College will be significantly higher than those receiving financial assistance.

Background and Significance

Programs of financial assistance to students attending colleges and universities in the United States have changed dramatically since 1643, when Lady Anne Mowlson gave one hundred English pounds to "constitute an endowment for the support at Harvard of 'some poore schooler'. . ." to establish the first recorded scholarship program (4, p. 7).

In 1958, Seymour Harris, then Chairman of the Department of Economics at Harvard University estimated that the 96 million dollars which were spent to assist students enrolled in colleges and universities in the United States in the 1955-56 academic year would increase to more than 600 million dollars by the academic year 1969-70 (5, p. 73). In 1968, it became apparent that the assistance would be more than twice the amount Harris estimated; it was expected
that in the 1968-69 school year more than 1.2 billion dollars would be available, which would aid more than one million students (10, p. 2).

Early programs of student financial aid were begun with money given to colleges and universities by private individuals specifically to aid needy and worthy students; in many instances those funds were supplemented by allocations from the general funds of the institutions themselves. The original purpose of student aid was to make a college education available to those individuals who could not themselves afford to pay the costs.

The college was not to be an institution of narrow privilege. Society required the use of all its best talents, and while it would, of course, always be easier for a rich boy than a poor boy to go to college, persistence and ambition and talent were not to be denied. The American college, therefore, was an expression of Christian charity, both in the assistance that it gave to the needy young men, and in the assistance that it received from affluent old men (7, p. 177).

As the term scholarship was used initially in connection with student financial aid, it meant a gift of money granted to a student who could not otherwise afford to attend college.

This original emphasis on student financial need continued through the years until the 1940's, although it is also true that during much of this time, alterations and embellishments were made in the institutional practices. Such alterations were made in an effort to serve national
and institutional purposes through student financial aid while at the same time enabling needy students to attend college. Scholarship programs were organized in several states to provide aid for special groups of students, such as those preparing to become teachers, or doctors and nurses in rural areas. Institutions used aid funds to recruit students in the hope that the subsidized pupils would help to attract other enrollees who would be able to pay the charges. Colleges also desired to have some needy students on campus so the institutions would not be criticized as being snobbish havens for the affluent (8, p. 19). Additionally, institutions of higher learning inaugurated special grant programs to recognize and to reward particularly outstanding skills developed by students in non-academic or co-curricular areas; for example, grants were awarded to students for special ability in athletics, debating, music, and other fields.

The continued emphasis on the need of the student as a criterion for selection for assistance during the first half of the twentieth century was evidenced by the establishment of funds by fraternities for indigent members, the arrangement of textbook loans for needy students, the operation of special dining halls for the poor, and the introduction of manual labor programs for students. An early example of the poor being given first preference in locating term-time employment was the establishment at
Yale in 1900 of the "Bureau of Self Help" to assist needy but ambitious students (8, p. 21).

The desire to achieve a number of different goals through the instrument of student financial aid has been apparent throughout the history of our colleges and universities. In the closing months of World War II, the Servicemen's Readjustment Act of 1944, known familiarly as the G. I. Bill, was passed; this action channeled into college a large number of students with substantial amounts of support from the federal government, granted without regard to financial need. Many institutions found that the amounts of scholarship funds which previously had been used to support needy students were no longer required for that purpose, and those colleges began to use their funds to attract and to reward students with academic or other special talents with little or no regard to the financial conditions of such individuals. The term scholarship thus gained the additional meaning of a gift of money used to reward talented students, and the public at large became familiar with such phrases as academic scholarship, athletic scholarship, and music scholarship.

Yet another shift in the rationale of financial aid programs began in the late 1950's when agencies of the federal government began to provide large amounts of assistance to college students. The National Defense Student Loan (NDSL) Program, authorized by the National Defense
Education Act of 1958, was a major student financial aid effort by the federal government. The results of the NDSL Program were dramatic, particularly in the light of the fact that student loan programs had been available in some institutions since the early 1900's (8, p. 22). For example, it was estimated that prior to the NDSL Program, twenty-six million dollars were available in loan programs, but only 50 per cent of such funds were being used. While those data might have seemed to indicate a reluctance on the part of students and their families to borrow for education expenses, the NDSL Program in its first full year of operation advanced more than sixty million dollars to students (6, p. 79). Although the NDSL Program was clearly a loan program, it followed the pattern established by earlier scholarship programs in that it required that preference among needy student borrowers be given to those of exceptional promise who would enter such critical areas as mathematics, science, foreign languages, engineering, and education. (Preference for outstanding students preparing to enter those special areas is no longer mandated by the NDSL Program.)

In 1964, the Congress of the United States passed the Economic Opportunity Act, which among its provisions authorized the College Work Study Program (CWSP). This program joins federal and college funds to encourage and to extend the employment of students, both on-campus and
in non-profit off-campus agencies. Collegiate institutions which participate in the CWSP are required to maintain, from their own funds, their previous level of student employment; this program is intended to assist and to advance, but not to replace the efforts of the colleges in providing jobs for students. Initially the CWSP was restricted to students from extremely low income families; these severe limitations have since been revised, and now it is required only that preference in employment be given to students from low income families.

The Higher Education Act of 1965, passed by the United States Congress and signed into law by President Lyndon B. Johnson on November 8 of that year, centralized the administration of sponsored student aid activities in the U.S. Office of Education and established the Educational Opportunity Grant (EOG) Program. This program authorizes direct grants, which are not to be repaid, to students who demonstrate that they and their families are unable to pay for higher education. The grants may not exceed $1,000 per year or one-half the amount the student needs to go to college, whichever is less, and a matching amount must be made available to the student from other approved sources of student financial aid.

The major federal programs of student aid have now departed from an earlier practice of limiting eligibility to academically superior students. The Educational Opportunity
Grant and the College Work Study Program stipulate only that the student maintain normal progress toward his degree, according to the standards usually used by the institution to define "normal progress." The essential criterion of these programs is the student's need for funds. Thus, the purpose of the principal financial aid programs of today are markedly similar to the original intention of student aid programs--to make the best use of the talents of all our young men and women (9, p. 21).

Student financial aid programs may generally be organized into three categories: grants, loans, and jobs; and these three categories may be further sub-divided according to special characteristics of individual programs. The first major subdivision of each of the three general classes of aid is made in terms of whether or not the applicant and his family must submit financial data to show a need for assistance, and whether or not the amount of aid to be awarded is related to need for funds to meet educational expenses.

Grants

Scholarships or grants-in-aid are awards of money, tuition discounts, remission of tuition and fees, or similar considerations that require neither repayment nor some service to be performed by the student. Service awards are similar to scholarships and grants, except that these are awarded in return for services rendered to the institution;
such awards are usually made in recognition of unusual ability in special areas such as athletics, debating, or music. Service awards differ from employment because they are grants of money and not payment for work either on an hourly basis or on the basis of completion of specific tasks (12, p. 2). All of these forms of gift aid, as financial assistance, will be referred to as grants.

There are several sub-categories within a program of financial grants, and these classifications are found both in programs which do and those which do not require the applicant’s family to supply financial data and which relate stipends to need:

1. Awards based on the student’s preparation and potential for performance in the institution’s general or special academic programs. These awards recognize and reward either or both past academic accomplishment and the capacity for future achievement in the overall curriculum or in special programs of study. Frequently applicants are required to compete among themselves for these awards. The awards may be funded from the resources of the institution itself or from donations made by individuals, corporations, foundations, or other donors.

2. Awards based on the student’s preparation and potential for performance in non-academic or co-curricular areas of the institution’s program. These awards acknowledge special skills in areas such as athletics, music,
debating, and journalism. Eligibility for some awards may be restricted to students participating in specific programs, such as intercollegiate athletics or ROTC. These awards may be offered in recognition of the special skill generally, or they may require continued performance by the student in order for the award to be continued.

3. Awards to provide special benefit to the applicant or his parent because of the parent's relationship to the institution, to a particular professional group, or to a donor. These awards include those made to children of faculty members and children of clergymen, as well as non-competitive awards offered by industrial or other organizations for children of employees.

The importance of grant awards in a financial aid program, even in a low-cost publicly-supported institution of higher learning, has increased as both the academic rigors and the expenses of post-secondary education have become more stringent. It is becoming increasingly more difficult for a student to support himself fully through his own efforts; hence the growing availability and use of loans to finance education is helping with the burden that formerly was borne largely by student employment. However, most institutions have found it necessary to establish limits, in addition to those set by law, on the total amount which will be loaned to a student, and these limits frequently are lower than the total need of the student. The
difference in amount between the need of the student and the funds that he may be expected to provide from his own efforts, his family's efforts, and by prudent borrowing, needs to be made available to the student through grants.

A substantial amount of grant assistance to college students is provided by the federal government, acting through the Educational Opportunity Grant Program, the Opportunity Grant Program for Nurses, the Law Enforcement Educational Grant Program, and the Health Professions Grant Program. Each of these grant programs is administered by the collegiate institution according to specific procedures and under what are sometimes seen as rigid rules and regulations established by the federal government.

In 1971, the Texas State Coordinating Board authorized the Tuition Equalization Grant Program. This program makes possible for residents of Texas with a financial need to attend a private college or university in Texas. The grants may not exceed $600 per year or the difference between the tuition cost of attending a public college or university in Texas and the tuition cost of attending a private college or university in Texas.

Exclusive reliance on federal and state funds for grant assistance, however, may make it difficult or even impossible for a college to meet the needs of its students who are eligible for and deserving of this form of aid. It is therefore highly desirable to have additional funds
available from institutional or private sources in order to be able to extend the assistance of a grant award to a student who cannot be accommodated within the confines of federal and state programs of grant aid.

**Loans**

Loans are sums of money awarded with the requirement that they be repaid in whole or in part, in some cases with and in other cases without payment of interest. Applications for loan assistance may or may not call for the applicant and his family to report financial data in order to show a need for funds, and the amount loaned may or may not be contingent upon the amount of need. Some loan programs which require the payment of interest call for the payment of that charge during the period of study, while others defer such interest charges until after the student leaves college. Commercial loans with a true interest rate in excess of 6 per cent per year may be used to defer payment of some educational expenses, but they are usually not considered to be student financial aid in the customary sense of that term (7, p. 2).

Currently the major sources of loan funds are the federal and state governments. Among the largest loan programs in the United States are the National Defense Student Loan Program, the Health Professions Loan Program, the Nursing Student Loan Program, and the Law Enforcement
Education Loan Program, all four sponsored by the federal government, and the Henson-Hazelwood Student Loan Program, sponsored by the State of Texas.

In addition to loan funds which are provided by sources outside the institutions, many colleges provide long-term and short-term loans to students from their own resources. Short-term or "petty cash" loan funds permit colleges to satisfy immediate needs of students, such as carfare until payday, in an efficient and economical manner.

Some student loan programs available from organizations and agencies apart from the collegiate institution do not require extensive on-campus administrative activity. The institution's involvement with such programs is minimal, frequently being limited to attesting to the lender that the applicant is a registered student and that his description of expenses is reasonable. One program of this type is the federal Guaranteed Loan Program, authorized by the Higher Education Act of 1965. Under that program, the student arranges to secure a loan from a private, eligible lender, and the college certifies attendance and reasonableness of expenses. For students whose families have an adjusted gross income less than $15,000, the federal government pays the interest while the student is in school; other students are eligible to borrow funds with the insurance guarantee but without any subsidization of interest payments.
Jobs

Some colleges and universities limit their consideration of student employment as a form of financial aid to jobs which are paid from the funds of the institution or from funds which are administered through the financial accounts of the college (14, p. viii). However, many institutions have broadened the meaning of employment as a form of aid to include, for students who have a need for assistance, all work opportunities for which the college assists in job placement. For example, some colleges have standing arrangements with certain local employers for placing a given number of students each semester in part-time jobs. Eligibility for employment and the amount of remuneration may be determined, as with grants and loans, either with or without requiring the student and his family to report financial data in order to show a need for funds. Employment may be for a specific and announced duration, controlled by a number of hours to be worked each week, or it may be for an unspecified duration, limited by the time needed to complete a given task.

Many institutions make such employment available to any student who wishes to work, whether or not he has financial need; in those colleges, it is usually held that employment itself is an educational experience that will provide a worthwhile supplement to formal classroom instruction. Many institutions set aside a number of positions
or an amount of payroll dollars to be used for students who demonstrate financial need; among such positions are term-time jobs assisting members of the faculty, administration, and service staffs, vacation employment, student agency arrangements (through which students operate service enterprises on campus for profit), and what might be termed casual labor jobs (such as baby-sitting and gardening) which can provide income in small amounts to meet unanticipated expenses.

Not all student employment is considered to be financial aid in the customary sense of that term. For example, some colleges and universities maintain student employment services to help students find both on-campus and off-campus jobs. If the student competes for employment on the same basis as any other job applicant, the remuneration he receives is not considered financial aid; rather it is simply counted as a part of the financial assets or strengths of the student which reduces the amount of financial aid that he needs. Only employment for which the applicant receives preferential consideration because of his status as a student is considered to be student financial aid.

In December, 1970, the Carnegie Commission on Higher Education expressed its concern about the financial crisis of colleges and universities, a crisis which is unmatched in its impact in any previous period in education's history.
Based on estimates developed from case studies of forty-one institutions, the Commission reported that about two-thirds of all United States colleges and universities either are in financial difficulty or are headed for financial trouble. The report further pointed out that:

Of the forty-one institutions surveyed, eleven, including such well-known institutions as the University of California at Berkeley, Stanford University, and New York University, are considered to be in financial difficulty—that is, their financial situation has forced them to cut back on services that they regard as important parts of their programs (11, p. 1).

One way to prevent enrollment deterioration owing to increased student costs is deferred tuition. More than 20 per cent of Yale University's undergraduates, who are required to pay room, board, and tuition fees totaling $4,400 for the 1971-72 school year, have asked to participate in the University's newly instituted deferred tuition plan. The plan allows students to postpone payment of a portion of their fees ($800 for the 1971-72 year) in exchange for a fixed portion of their future earnings (11, p. 4).

The students attending one of the twenty-nine private colleges in Texas during the 1970-71 academic year paid from $1,486 to $3,101 for tuition, fees, room, and board. Austin College ranked third from the most expensive with a total basic cost of $2,850 (2, p. 48).

In addition to these basic tuition, fees, room, and board costs, the student must consider a personal budget for transportation, books, clothing, laundry, school supplies,
room furnishings, activities, and recreation. This personal budget can range from $200 to $500 (15, p. vi).

The national status and quality of Austin College were indicated in 1967 when The Research Corporation announced that the College was one of the only two institutions selected in the nation at that time to receive a major challenge grant to provide enrichment of the total College program. Recognition of recent progress was expressed by The Corporation in transmitting their $3,000,000 grant.

Our purpose is to help colleges which present unusual promise for achieving academic excellence. We believe Austin College is an outstanding example of such a college because of the great advances you have made recently in assembling a quality faculty and administrative leadership, initiating significant creative activity; in acquiring unusually fine science facilities; and in the quality of your total college program (1, p. 23).

This study will be significant in six respects. First, it will deal with a problem of broad economic significance for higher education in that sources for financial assistance for private institutions are becoming increasingly varied in kind. Second, it will compare two groups of Austin College students' achievement and involvement and in so doing will compare certain factors in students who receive financial assistance with those who do not receive such assistance. Third, it will seek to find the reasons students give for withdrawing from the College. Fourth, it will assist Austin College administrators in allocating the Institution's
resources for student recruitment. Fifth, it will assist Austin College administrators in determining the characteristics of the students whom to recruit. Sixth, it will encourage governmental agencies and constituents of colleges and universities to give more consideration for student aid.

Definition of Terms

For purposes of clarity, the following terms have been defined for this study:

1. **Financial Assistance**--This term refers to a combination of a grant, loan, and job which is used to reduce the expenses normally incurred by a college student.

2. **Financial Need**--Financial need is the difference between the amount of money a student and his family can provide for an education and the expense of that education.

3. **Grant**--A grant is a gift award to a student on the basis of demonstrated financial need in order for the educational expenses to be met.

4. **Loan**--A loan is a resource for college students with an established financial need which serves as a means of meeting their educational expenses. Each loan has an attractive repayment schedule at low interest rates.

5. **Job**--A job is on-campus employment for college students with an established financial need in order for the educational expenses to be met. Students employed off-campus are not considered in this study.
6. **Coordinate Curriculum**--The Coordinate Curriculum refers to the educational activities which take place outside the classroom. Included are seven programs--Basic Decisions, College Convocations, the Religious Program, Physical Training and Recreation, World Affairs and Field Studies, Cultural Involvement, and the Community Living Program.

7. **Austin Scholars Program**--The Austin Scholars Program is designed to challenge students with honors potential by providing curricular flexibility, individualized degree plans, and detailed course evaluations.

8. **January Term**--The January Term is a distinctive part of the Austin College student's education, since it makes available one month each year for concentrated study on a single topic.

9. **Inter-Institutional Cooperative Program**--This term refers to The Association for Graduate Education and Research of North Texas (TAGER). The following institutions are members of this Association which makes possible a variety of cooperative programs among the members for the improvement of graduate and undergraduate teaching and research: Austin College, Bishop College, Southern Methodist University, Texas Christian University, The University of Texas at Dallas, Texas Wesleyan College, Dallas Baptist College, and the University of Dallas.
10. **Departmental Honors Program**--The Departmental Honors Program is designed for the student who has achieved excellence in his field of concentration and allows him to enrich his academic experience through independent investigation.

11. **Educational Advising Center**--The Educational Advising Center maintains a Central Educational File on each student's progress. The Central Educational File contains reports of programs, problems, and success or failure to maintain the standards of the College, both academically and behaviorally. Specifically, the file contains the admissions material, test scores, the academic record, records of students' activities, awards, and accomplishments, reports on absences from class, reports on illness (non-confidential medical information only), reports of infractions of College principles and rules, reports of action taken by judicial bodies of the College, and records of academic and disciplinary probation.

**Basic Assumptions**

It was the assumption of this study that the collection of data from the students' records was an adequate source to test the hypotheses of the study. It was further assumed that the students were honest in reporting their involvement in the coordinate curriculum.
Delimitations of the Study

This study was limited to the period of enrollment at Austin College for the total 1100 undergraduate students who were enrolled full time for the 1970-71 academic year. Also, it was limited to 100 students randomly selected from the population of 485 students receiving financial assistance and 100 students randomly selected from the population of 615 students not receiving financial assistance. It was further limited to objective data located in the students' records.

Procedures for Collection of Data

The procedure for the collection of data for this study was an intensive review of the students' records located in the Educational Advising Center, the Records Office, and the Counseling Center.

Subjects for this study were the students enrolled in Austin College for the Fall of 1970 and Spring of 1971. In one group, there were 100 students selected at random from the 485 students who received financial assistance. The other group consisted of 100 students randomly selected from the 615 students who did not receive financial assistance. All students in each population were numbered and a table of random numbers was used to select the subjects for the study.
Procedures for Treatment of Data

The data obtained for each student in the study were recorded on format sheets and key-punched into IBM cards.

The tenability of all hypotheses of the study was tested in the null form at the .05 level of significance.

Hypotheses 1, 2a, and 2b were tested by using the t-test for two independent samples (two-tailed test).

Hypotheses 2c-10 were tested by using the chi-square test of goodness of fit.

Organization of Remainder of the Study

The second chapter is a presentation of the related research. The methods and procedures for the collection of the data are described in detail in Chapter III. In Chapter IV findings are presented and the hypotheses are analyzed. Chapter V is devoted to the summary of the study, conclusions and implications drawn from the findings, and recommendations for further consideration.
CHAPTER BIBLIOGRAPHY


10. Rudolph, Frederick, "Myths and Realities of Student Aid," College Board Review, XLVIII (Fall, 1962), 18-23.


CHAPTER II

SURVEY OF RELATED LITERATURE

College has a major effect upon the development of the whole human personality for the student. His interaction with teachers, the friendship groups in which he becomes integrated, the values he acquires from student culture, the atmosphere of flexibility or rigidity which permeates the school environment, the playfulness or the seriousness, the "practicality" or the "spontaneity" of operative educational goals of his college—all these have an immense, if not yet precisely measured, impact on the evolution of the young person's self view and world view, on his confidence and altruism, and on his mastering of the needs for identity and intimacy. The college must recognize that even its instructional goals cannot be effectively achieved unless it assumes some responsibility for facilitating the development of the total human personality.

As stated in Chapter I, this study was concerned with comparing the students receiving financial assistance with students not receiving such assistance, in relation to selected factors during the period of their enrollment at Austin College.
Brown (5) in his analysis to determine whether intellectual attitudes were related to the breadth of participation in intellectual activities and discussions and types of books and magazines read, has noted that an intellectual orientation was more likely to be reflected in reading interests than in the range of activities such as attendance at plays, concerts, and lectures, or involvement in intellectual discussions. "This corresponds to the typical image of the intellectual as being more reflective than active." It is evident that this study was related to Brown's investigation, because it too included breadth of participation. However, this study was different because it measured the effect of financial assistance on the degree of breadth of participation.

According to Riesman and Jencks (18), academic inquiry on campus can be distinguished from intellectual inquiry. "Students pursuing academic interests concern themselves with questions aimed to increase their knowledge within a discipline, while those concerned with intellectual inquiry focus upon growing in wisdom." They are also motivated by different incentives. The academic-minded student places a premium on a good grade point average and fulfillment of course requirements. The intellectually oriented student, on the other hand, strives to broaden his understanding and sharpen his ability to think. One of the hypotheses of this study showed the relationship to the study reviewed by
stating that the financially needy student places a premium on a good grade point average, while another hypothesis predicted the more wealthy student would have a broader understanding of foreign cultures and more opportunities for participation in aesthetic opportunities.

Differences in educational outcomes of minority groups as well as whites, as indicated by standard tests, stem partly from the school, partly from the community, and partly from the home. Frequently, these differences lead to serious educational disadvantages, since these tests measure some of the major skills necessary for further education and for occupational advancement in modern society (22, p. 285). The present study was different to the one surveyed because it did not identify specific minority groups, although many minority students were represented in the group who received financial assistance.

Ordinarily, when one finds that the level of achievement in one school is much higher than the achievement in another, there comes to his mind these sources of difference: the different students with which the school begins, the different community settings or student body climates which encourage or fail to encourage high achievement, and the differences in the school itself. One writer (22) considered these same sources of variation as he attempted to determine school-to-school variation in achievement.

1. For each group, by far the largest part of the variation in student achievement lies
within the same school, and not between schools. Over 70 per cent of the variation in achievement for each group is variation within the same student body.

2. Comparison of school-to-school variations in achievement at the beginning of grade one with later years indicates that only a small part of it is the result of school factors, in contrast to family background differences between communities. Much of the school-to-school variance is itself a result of family background differences.

3. There is evidence that attributes of other students account for far more variation in the achievement of minority group children than do any attributes of school facilities and slightly more than attributes of staff. Differences in school facilities and curriculum, which are the major variables by which attempts are made to improve schools, are so little related to differences in achievement levels of students that, with few exceptions, their effects fail to appear.

The situation was summed up by Trueblood (21, p. 336) when he wrote, "The inequalities imposed on children by their home, neighborhood, and peer environment, are carried along to become the inequalities with which they confront adult life at the end of school."

It seems reasonable to assume that the use of selective admissions procedures by colleges should insure that admitted students have at least the minimum ability to succeed academically. However, students do fail. Rokeach (19, p. 10) found that

... openminded individuals (i.e., those who hold that authority is not absolute, and that people are not to be evaluated on the basis of their agreement or disagreement with the party line) will believe and behave differently from close minded individuals (i.e., those who hold that authority is absolute).
Projecting this concept to a collegiate setting, it seems reasonable that these differences in beliefs and behavior should affect students' academic success.

Pace and Stern (15), Pervin (16), and Pervin and Rubin (17) have noted that each college campus has a unique climate and that all individuals cannot adapt to all climates.

The present study was very definitely related to the surveys conducted by Tufte, Trueblood, Rokeach, Pace, Stern, Pervin, and Rubin, because the subjects came from diverse homes, schools, and communities which accounted for variation in such areas of background differences as intellectual, cultural, social, aesthetic, religious, and physical. However, it differed from the studies reviewed because it added two additional variables—students with and without financial assistance—as it attempted to determine the effect of these two variables on each background difference variable.

Kopecek (12, p. 57) in his study to determine the effectiveness of specifically designed freshmen orientation programs on open and close-minded students, wrote,

... it is possible to design programs that result in statistically significant differences in mean grade point average by group and in level of knowledge about a campus, and voluntary withdrawal and academic dismissal are not affected by orientation programs.

The present study was directly related to the study reviewed because it included the effectiveness of a freshman
orientation program, as determined by the students. However, it attempted to determine if this factor was influenced by students with and without financial assistance, which Kopecek did not consider.

Colleges and universities continue to be confronted with student demands for greater involvement in the decision making process. Therefore, it is mandatory that institutional policies and practices be subjected to continuous critical examination. Student demands for increased freedom and privacy in residential living arrangements raise several fundamental policy questions, as pointed out by Binning (3) and Woodring (23): What are the necessary and appropriate rules for a given institution? What is the institutional educational philosophy regarding control of student behavior? What is the role and responsibility of residence hall staff? Because it is difficult, if not impossible, to turn the clock back once students are granted increased freedom, the preceding questions, as well as others, deserve careful attention before an institution adopts a program of open visitation.

Due to the problems created by student demands for increasing freedom and privacy in residence halls, the State University of New York at Stony Brook implemented an experimental program of twenty-four hour parietals in the fall of 1968. After one semester's operation, Dunn and Rickard (7) asked the students whether the twenty-four hour parietal
policy caused any problems. Responses were compared according to sex, class, and type of living arrangement. The results indicated (1) female students reported significantly more problems than male students, (2) there was no significant difference existing in the number of problems reported among classes, and (3) there was no significant difference in the number of problems reported as a function of living in a traditional residence hall whose rooms are entered from a central hallway or one that is arranged in suites with outside entrances.

Although this study differed from those reviewed because it attempted to determine the extent of involvement of students with, as compared to those without financial assistance, it was related to the observations made by Binning, Woodring, Dunn, and Richard because of the inclusion of student involvement in the decision making offices of student government and residence halls. It also included a study to determine the extent of student involvement in the open house program (limited parietals) in the residence halls.

According to Elton and Smart (8), who studied the relationship between student values and membership in a Greek organization, it was found that rushees and independents do not differ on family income. Social spontaneity is more important than family income in determining who will pledge. Thus, the values of the fraternity and sorority
pledge can be described as consisting primarily of social gregariousness. Those who pledged indicated significantly more often than either rushees or independents that they enjoy parties, like large gatherings, prefer to attend social functions, like appearing on programs and giving oral reports, and are cordial to strangers. The present study was directly related to the reviewed study by Elton and Smart because it also sought to determine if there was a difference in the number of students with, as compared to those without financial assistance, who are members of a fraternity or sorority.

Numerous studies dealing with educational achievement of college students who receive financial assistance have been done with the student who works part-time. However, there exists only one known study which has explored the educational achievement of students who receive a student loan and grant as part of the financial aid package. Blanchfield (4) conducted a study to determine if there was a relationship between college student dropouts and students who financed their education with a loan and grant. The conclusions were that grants are identified with successful students and loans are not necessarily associated with dropouts, but are not significantly associated with successful students either. The present study closely paralleled Blanchfield's investigation, because it also attempted to determine the effect of financing an education with a grant
and loan on the attrition of college students. It differed from his study because it also included the student who worked as part of his financial assistance.

In 1940, a nation-wide survey of 64,805 National Youth Administration college and graduate students was conducted concerning their scholastic standing as compared with other students during the 1938-39 academic year. The study revealed the following:

1. Students employed by NYA received, as a group, higher grades than the average of the general student body in 81 per cent of the institutions.
2. Nearly two-thirds of the NYA students had scholastic averages that placed them in the upper half of the student body,
3. In each of the states and territories, a majority of the NYA college and graduate students had higher scholastic averages than the general student body (1, p. 7).

Trueblood (21) found in a study of 1,700 college students that part-time work cannot be said to have a significant positive or adverse effect on academic achievement.

Of great importance to the community college environment is the study by Anderson (2) who found that there was no significant difference between grade point average earned, the number of units attempted, or the number of units completed by employed and non-employed students. The study concludes "employment cannot be considered a primary cause of low grades."

Henry (9) points out that there are no important grade differences between working and nonworking students, and
concludes that there is reasonable safety in employing freshmen up to fifteen hours per week. Another investigation of 1,000 college juniors by Dickinson (6) reveals that no important grade differences appear between working and nonworking students. In comparing grades achieved by students who worked and those who did not in 1952 and in another study in 1960, Tombaugh (20) concludes that there was no significant change in results even though some worked forty hours a week.

McCombs (14) studied extensively the freshman students at Ohio State University. His study found that once the proper freshmen adjustments are made, a part-time job is likely to improve the student's grades. The optimum work-load for second semester freshmen might be fifteen to twenty hours per week.

Other studies by Keene (11), Kaiser (10), and Le Grande (13), have indicated that students who work on campus, as an average, achieve higher grade point averages than do nonworking students.

This study was directly related to those reviewed having to do with the effects of employment on academic achievement because it attempted to determine if working eight to ten hours a week on-campus has any effect on the academic achievement of college students. The present study differed from those investigated because it included the
student who partially financed his education with a grant and loan in addition to having a job.

One may summarize the inquiries concerning academic achievement as follows: (a) intellectual orientation is more likely to be reflected in reading interests than attendance at plays, concerts, and lectures, (b) the academically orientated student places a high priority on a good grade point average and fulfillment of course requirements, whereas the intellectually-minded student strives to broaden his understanding and sharpen his ability to think, (c) inequalities imposed on children by their home, neighborhood, and peer environment are the causes of the inequalities with which they confront adult life at the end of school, (d) students' academic success is directly affected by their personal beliefs and behavior, (e) female students reported significantly more problems with open visitation programs than male students, (f) social relationship is more important than family income in determining who will pledge membership in a Greek organization, (g) loans are not necessarily the most effective way to finance higher education, but they are not necessarily associated with drop-outs, and (h) college students who work up to fifteen hours per week on-campus achieve higher grade point averages than do nonworking students.
CHAPTER BIBLIOGRAPHY


42


CHAPTER III

METHODS AND PROCEDURES

This study was conducted to compare the students receiving financial assistance with students not receiving such assistance in relation to selected factors during the period of their enrollment at Austin College.

Subjects

The subjects selected for this study were enrolled in Austin College, Sherman, Texas.

There was a total of 200 subjects used in the design of this study. Of this number, 100 subjects received financial assistance and 100 subjects did not receive financial assistance.

Design of the Study

Subjects selected for the group receiving financial assistance were college students enrolled at Austin College in the 1970-71 academic year. Subjects selected for the group not receiving financial assistance were college students enrolled at Austin College in the 1970-71 academic year. No attempt was made to match the two groups other than by randomization.
Procedures for Collection of Data

A proposal of the present study was first submitted to the executive staff of Austin College, and permission to do the study was granted. The administrators were assured that at no time would the names of the subjects be revealed in the study.

The grade point average of each student was computed from permanent records in the Records Office. The grade point averages were computed by adding the number of semester hours attempted and the number of grade points earned from college entrance through the 1971 spring semester. The sum of the grade points was then divided by the sum of the semester hours to arrive at a grade point average for each student.

The following information pertinent to this study was also obtained from the permanent records in the Records Office in determining the number of students: (1) who had enrolled in a full academic course load (four courses) for each semester; (2) who had enrolled in at least one independent or directed study course since college entrance; (3) who had been admitted to the Austin Scholars Program; (4) who had utilized the inter-institutional cooperative programs to supplement their curriculum (with course credit); (5) who received summer school course credits at colleges other than Austin College; (6) who had participated in the Departmental Honors Program; (7) who had participated
in an international program; (8) who had participated in an off-campus January-term course; (9) who had audited one or more courses; (10) who had concentrated in the visual and creative arts; and (11) who had an interest in a pre-professional course of study.

Most of the remaining data necessary for this study was located in the Central Educational File in the Educational Advising Center. The mean number of hours in study outside the classroom was computed by adding the number of hours as reported weekly by the students to the Educational Advising Center, and the number of weeks enrolled from college entrance through the 1971 spring semester. The sum of hours was then divided by the sum of the weeks to arrive at a mean number of hours each student studied weekly outside the classroom. The mean number of hours in study each week outside the classroom for each group was computed by adding the mean number of weekly hours and the number of students in each group. The sum of mean hours was then divided by the sum of students in each group to arrive at a mean number of hours in study weekly outside the classroom for each group.

Computing the mean number of individual conferences with faculty and advisor was carried out for both groups using the criterion outlined above for computing the mean number of hours in study outside the classroom. However, the mean was computed by using a semester as a unit instead
of a week. Each conference was reported to the Educational Advising Center by the faculty or advisor, specifying the nature of the problem and the recommendation for solving it.

The following additional data, as reported by the students to the Educational Advising Center, were obtained for this study in determining the number of students: (1) who had been involved in intramural athletics; (2) who had been a Basic Decisions group leader; (3) who had attended more than the minimum required number of weekly convocations (five per semester); (4) who had been elected by peer-group to serve in a leadership role; (5) who had participated in the Cooperative Campus Ministry; (6) who had participated in the Open House Program in the residence halls; (7) who had utilized the inter-institutional cooperative programs to supplement their curriculum (without course credit); (8) who had participated in cultural appreciation events; (9) who had evaluated the Basic Decisions Program as helpful or very helpful; (10) who had been placed on community probation or suspension; and (11) who had missed classes due to illness.

Finally, the Counseling Center was the location of the data obtained to find the number of students in both groups who withdrew from Austin College after enrolling for the 1970-71 academic year. Also, the reasons they listed for withdrawing were noted.
Procedures for Analysis of Data

Hypotheses 1, 2a, and 2b were tested by first computing a mean score for the students receiving financial assistance and the students not receiving financial assistance. The t-test for two independent samples was used to determine whether the means for the two groups differed significantly. The .05 level of significance was required for rejecting the null hypothesis for a two-tailed test.

Chi-square test of goodness of fit was used for hypotheses 2c-10 to determine whether the observed frequency distribution departed significantly from the hypothesized frequency distribution. The .05 level of significance was required for rejecting the null hypothesis.

A list, grouping the reasons given by non-returning students, was also tabulated.
CHAPTER IV

STATISTICAL ANALYSIS OF DATA

The purpose of this chapter was to present a statistical analysis of the data obtained in this study which were relevant to the hypothesis. Two statistical techniques were utilized in the analysis of the results--the t-test for two independent samples and the chi-square test of goodness of fit. Hypotheses numbered 1, 2a, and 2b were analyzed by the use of the t-test for two independent samples (two-tailed test). All other hypotheses were analyzed by use of the chi-square test of goodness of fit. The level of significance was reported for each hypothesis.

In computing a statistic to test the significance of hypotheses 1, 2a, and 2b, the t-test for two independent samples was applied as shown in Tables I, II, and III.

Hypothesis 1

In hypothesis 1, it was predicted that the mean grade point average of the students receiving financial assistance would be significantly higher than those not receiving financial assistance.

Data were analyzed for 100 students in the population receiving financial assistance and 100 students in the population not receiving financial assistance. The mean of
A comparison of the mean grade point average for students receiving financial assistance and students not receiving financial assistance

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Assistance, N=100</td>
<td>2.59</td>
<td>198</td>
<td>0.55</td>
<td>NS</td>
</tr>
<tr>
<td>No Financial Assistance, N=100</td>
<td>2.65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The group receiving financial assistance was 2.59. The mean for the group not receiving financial assistance was 2.65. The comparisons were not found to be statistically significant in hypothesis 1.

Hypothesis 2

In hypothesis 2a, it was predicted that students who receive financial assistance will have a significantly higher degree of outside-of-class academic preparation than those not receiving financial assistance, as determined by the mean number of hours in study outside the classroom.

Data were analyzed for 100 students in the population receiving financial assistance and 100 students in the population not receiving financial assistance. The mean of the group receiving financial assistance was 25.36. The mean for the group not receiving financial assistance was 21.00. A probability level of better than .005 was reached in hypothesis 2a, supporting the hypothesis put forth.
TABLE II
A COMPARISON OF THE NUMBER OF HOURS IN STUDY EACH WEEK OUTSIDE THE CLASSROOM FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Assistance, N=100</td>
<td>25.36</td>
<td>198</td>
<td>2.90*</td>
<td>.005</td>
</tr>
<tr>
<td>No Financial Assistance, N=100</td>
<td>21.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.005

In hypothesis 2b, it was predicted that students who receive financial assistance will have a significantly higher degree of outside-of-class academic preparation than those not receiving financial assistance, as determined by the mean number of individual conferences with faculty and advisor.

TABLE III
A COMPARISON OF THE NUMBER OF INDIVIDUAL CONFERENCES EACH SEMESTER WITH FACULTY AND ADVISOR FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Assistance, N=100</td>
<td>10.57</td>
<td>198</td>
<td>2.14*</td>
<td>.05</td>
</tr>
<tr>
<td>No Financial Assistance, N=100</td>
<td>7.80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.05
Data were analyzed for 100 students in the population receiving financial assistance and 100 students in the population not receiving financial assistance. The mean of the group receiving financial assistance was 10.57. The mean of the group not receiving financial assistance was 7.80. A probability level of better than .05 was reached in hypothesis 2b showing statistically that the hypothesis was supported.

In computing a statistic to test the significance of hypotheses 2c-10, the chi-square test of goodness of fit was applied as shown in Tables IV-XXIV and XXVI.

In hypothesis 2c, it was predicted that students who receive financial assistance will have a significantly higher degree of outside-of-class academic preparation than those not receiving financial assistance, as determined by the number of students enrolled in a full academic course load (four courses).

TABLE IV

A COMPARISON OF THE NUMBER OF STUDENTS ENROLLED IN FULL ACADEMIC COURSE LOAD (FOUR COURSES) FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$X^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>72 (69.5)</td>
<td>67 (69.5)</td>
<td>1</td>
<td>0.12</td>
<td>NS</td>
</tr>
</tbody>
</table>
Data were analyzed for 72 students in the population receiving financial assistance and 67 students in the population not receiving financial assistance. The comparisons were not found to be statistically significant in hypothesis 2c; that is, no significant difference in the two groups has been determined to exist.

Hypothesis 3

In hypothesis 3a, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students who are involved in intramural athletics.

TABLE V

A COMPARISON OF THE NUMBER OF STUDENTS PARTICIPATING IN INTRAMURAL ATHLETICS FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$x^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 (62)</td>
<td>54 (62)</td>
<td>1</td>
<td>1.81</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 70 students in the population receiving financial assistance and 54 students in the population not receiving financial assistance. The comparisons
were not found to be statistically significant in hypothesis 3a, thus refuting the hypothesis tested.

In hypothesis 3b, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students who serve as Basic Decisions group leaders.

TABLE VI
A COMPARISON OF THE NUMBER OF STUDENTS SERVING AS BASIC DECISION LEADERS FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 ,(5.5)</td>
<td>4 ,(5.5)</td>
<td>1</td>
<td>0.36</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 7 students in the population receiving financial assistance and 4 students in the population not receiving financial assistance. The comparisons were not found to be statistically significant in hypothesis 3b; that is, statistically speaking, there was no significant difference between the two groups.

In hypothesis 3c, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the coordinate curriculum
than those not receiving financial assistance as determined by the number of students who attend more than the minimum required number of weekly convocations (five per semester).

TABLE VII

A COMPARISON OF THE NUMBER OF STUDENTS WHO ATTENDED MORE THAN THE MINIMUM REQUIRED NUMBER OF CONVOCATIONS (FIVE PER SEMESTER) FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 (64.5)</td>
<td>69 (64.5)</td>
<td>1</td>
<td>0.50</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 60 students in the population receiving financial assistance and 69 students in the population not receiving financial assistance. The comparisons were not found to be statistically significant in hypothesis 3c.

In hypothesis 3d, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students who serve in peer-group elected positions.

Data were analyzed for 39 students in the population receiving financial assistance and 42 students in the population not receiving financial assistance. No significant
difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 3d.

In hypothesis 3e, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students who participate in the Cooperative Campus Ministry.

TABLE IX
A COMPARISON OF THE NUMBER OF STUDENTS WHO PARTICIPATE IN THE COOPERATIVE CAMPUS MINISTRY FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$x^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 (30.5)</td>
<td>8 (20.5)</td>
<td>1</td>
<td>14.05*</td>
<td>.005</td>
</tr>
</tbody>
</table>

*p < 0.005
Data were analyzed for 33 students in the population receiving financial assistance and 8 students in the population not receiving financial assistance. A probability level of better than .005 was reached in hypothesis 3e which supports the hypothesis put forth.

In hypothesis 3f, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students who participate in the Open-House Program in the residence halls.

**TABLE X**

A COMPARISON OF THE NUMBER OF STUDENTS WHO PARTICIPATE IN THE OPEN-HOUSE PROGRAM IN THE RESIDENCE HALLS FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$X^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 (91.5)</td>
<td>93 (91.5)</td>
<td>1</td>
<td>0.02</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 90 students in the population receiving financial assistance and 93 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 3f.
Hypothesis 4

In hypothesis 4a, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those not receiving financial assistance as determined by the number of students who enroll in independent or directed study courses.

TABLE XI

A COMPARISON OF THE NUMBER OF STUDENTS WHO ENROLL IN INDEPENDENT OR DIRECTED STUDY COURSES FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 (21)</td>
<td>30 (21)</td>
<td>1</td>
<td>6.88*</td>
<td>.01</td>
</tr>
</tbody>
</table>

*p < 0.01

Data were analyzed for 12 students in the population receiving financial assistance and 30 students in the population not receiving financial assistance. A probability level of better than .01 was reached in hypothesis 4a. It should be noted that the inverse of hypothesis 4a was supported; that is, statistically speaking, there was a significant difference between the students receiving financial assistance and those not receiving financial assistance although the hypothesis was refuted.
In hypothesis 4b, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those not receiving financial assistance as determined by the number of students who are members of the Austin Scholars Program.

**TABLE XII**

A COMPARISON OF THE NUMBER OF STUDENTS IN THE AUSTIN SCHOLARS PROGRAM FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$X^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 (6.5)</td>
<td>7 (6.5)</td>
<td>1</td>
<td>0.00</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 6 students in the population receiving financial assistance and 7 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 4b, thus refuting the hypothesis tested.

In hypothesis 4c, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those not receiving financial assistance as
determined by the number of students who are involved with the inter-institutional cooperative programs.

**TABLE XIII**

A COMPARISON OF THE NUMBER OF STUDENTS INVOLVED WITH INTER-INSTITUTIONAL COOPERATIVE PROGRAMS FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 (26.5)</td>
<td>20 (26.5)</td>
<td>1</td>
<td>2.72</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 33 students in the population receiving financial assistance and 20 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 4c.

In hypothesis 4d, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those not receiving financial assistance as determined by the number of students who receive summer school credit at other colleges.

Data were analyzed for 14 students in the population receiving financial assistance and 27 students in the population not receiving financial assistance. No significant
A COMPARISON OF THE NUMBER OF STUDENTS WHO RECEIVE SUMMER SCHOOL CREDIT AT OTHER COLLEGES FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 (20.5)</td>
<td>27 (20.5)</td>
<td>1</td>
<td>3.51</td>
<td>NS</td>
</tr>
</tbody>
</table>

A difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 4d; thus, the hypothesis put forth is not supported.

In hypothesis 4e, it was predicted that students who receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those not receiving financial assistance as determined by the number of students who participated in the Departmental Honors Program.

A COMPARISON OF THE NUMBER OF STUDENTS WHO PARTICIPATED IN THE DEPARTMENTAL HONORS PROGRAM FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 (6.5)</td>
<td>4 (6.5)</td>
<td>1</td>
<td>1.23</td>
<td>NS</td>
</tr>
</tbody>
</table>
Data were analyzed for 9 students in the population receiving financial assistance and 4 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 4e; thus, refuting the hypothesis tested.

Hypothesis 5

In hypothesis 5a, it was predicted that students who do not receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those receiving financial assistance as determined by the number of students who participated in an international program.

TABLE XVI

A COMPARISON OF THE NUMBER OF STUDENTS WHO PARTICIPATED IN AN INTERNATIONAL PROGRAM FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$x^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 (14)</td>
<td>21 (14)</td>
<td>1</td>
<td>6.04*</td>
<td>.025</td>
</tr>
</tbody>
</table>

*p < 0.025

Data were analyzed for 7 students in the population receiving financial assistance and 21 students in the
population not receiving financial assistance. A probability level of better than .025 was reached in hypothesis 52 showing statistically that the hypothesis was supported.

In hypothesis 5b, it was predicted that students who do not receive financial assistance will have a significantly higher degree of involvement in the flexible academic opportunities than those receiving financial assistance as determined by the number of students who participated in an off-campus January-term course.

### TABLE XVII

A COMPARISON OF THE NUMBER OF STUDENTS WHO PARTICIPATED IN AN OFF-CAMPUS JANUARY-TERM COURSE FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$x^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 (33.5)</td>
<td>43 (33.5)</td>
<td>1</td>
<td>4.84*</td>
<td>.05</td>
</tr>
</tbody>
</table>

* $p < 0.05$

Data were analyzed for 24 students in the population receiving financial assistance and 43 students in the population not receiving financial assistance. A probability level of better than .05 was reached in hypothesis 5b which supports the hypothesis put forth.

In hypothesis 5c, it was predicted that students who do not receive financial assistance will have a significantly
higher degree of involvement in the flexible academic opportunities than those receiving financial assistance as determined by the number of students who audited one or more courses.

### TABLE XVIII

A COMPARISON OF THE NUMBER OF STUDENTS WHO AUDITED ONE OR MORE COURSES FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>(X^2)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (7)</td>
<td>9 (7)</td>
<td>1</td>
<td>0.64</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 5 students in the population receiving financial assistance and 9 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 5c.

**Hypothesis 6**

In hypothesis 6a, it was predicted that students who do not receive financial assistance will have a significantly higher degree of participation in aesthetic opportunities than those receiving financial assistance as determined by the number of students who are concentrating in the visual and creative arts.
TABLE XIX

A COMPARISON OF THE NUMBER OF STUDENTS CONCENTRATING IN THE VISUAL AND CREATIVE ARTS FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$X^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 (9)</td>
<td>8 (9)</td>
<td>1</td>
<td>0.06</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 10 students in the population receiving financial assistance and 8 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 6a showing statistically that the hypothesis was not supported.

In hypothesis 6b, it was predicted that students who do not receive financial assistance will have a significantly higher degree of participation in aesthetic opportunities than those receiving financial assistance as determined by the number of students who participated in cultural appreciation events.

Data were analyzed for 95 students in the population receiving financial assistance and 91 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance.
TABLE XX
A COMPARISON OF THE NUMBER OF STUDENTS WHO PARTICIPATED IN CULTURAL APPRECIATION EVENTS FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>( x^2 )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 (93)</td>
<td>91 (93)</td>
<td>1</td>
<td>0.05</td>
<td>NS</td>
</tr>
</tbody>
</table>

as compared in hypothesis 6b, thus refuting the hypothesis tested.

Hypothesis 7
In hypothesis 7a, it was predicted that students who receive financial assistance will have a significantly higher degree of achievement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students who evaluated the Basic Decisions Program as helpful or very helpful.

TABLE XXI
A COMPARISON OF THE NUMBER OF STUDENTS WHO EVALUATED THEIR EXPERIENCE IN THE BASIC DECISIONS PROGRAM AS HELPFUL OR VERY HELPFUL FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>( x^2 )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>49 (33)</td>
<td>17 (33)</td>
<td>1</td>
<td>14.56*</td>
<td>.005</td>
</tr>
</tbody>
</table>

*p \leq 0.005
Data were analyzed for 49 students in the population receiving financial assistance and 17 students in the population not receiving financial assistance. A probability level of better than .005 was reached in hypothesis 7a which supports the hypothesis put forth.

In hypothesis 7b, it was predicted that students who receive financial assistance will have a significantly higher degree of achievement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students who have not been placed on community probation or suspension.

**TABLE XXII**

A COMPARISON OF THE NUMBER OF STUDENTS WHO HAD NOT BEEN PLACED ON COMMUNITY PROBATION OR SUSPENSION FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$x^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>91 (89.5)</td>
<td>88 (89.5)</td>
<td>1</td>
<td>0.02</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 91 students in the population receiving financial assistance and 88 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 7b.
Hypothesis 8

In hypothesis 8, it was predicted that the number of students interested in a pre-professional course of study who do not receive financial assistance will be significantly higher than those receiving financial assistance.

TABLE XXIII

A COMPARISON OF THE NUMBER OF STUDENTS WHO HAD AN INTEREST IN A PRE-PROFESSIONAL PROGRAM FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$x^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 (34)</td>
<td>37 (34)</td>
<td>1</td>
<td>0.37</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 31 students in the population receiving financial assistance and 37 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 8; that is, the comparisons were not found to be statistically significant and the hypothesis tested was refuted.

Hypothesis 9

In hypothesis 9, it was predicted that the number of students not receiving financial assistance who miss classes
due to illness will be significantly higher than those receiving financial assistance.

**TABLE XXIV**

A COMPARISON OF THE NUMBER OF STUDENTS MISSING CLASSES DUE TO ILLNESS FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$x^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>61 (63)</td>
<td>65 (63)</td>
<td>1</td>
<td>0.07</td>
<td>NS</td>
</tr>
</tbody>
</table>

Data were analyzed for 61 students in the population receiving financial assistance and 65 students in the population not receiving financial assistance. No significant difference was found between the students receiving financial assistance and those not receiving financial assistance as compared in hypothesis 9, thus refuting the hypothesis tested.

**Hypothesis 10**

In hypothesis 10, it was predicted that the number of students not receiving financial assistance who withdraw from the College will be significantly higher than those receiving financial assistance.

The reasons listed for withdrawing are shown in Table XXV.
TABLE XXV

REASONS GIVEN BY NON-RETURNING STUDENTS RECEIVING FINANCIAL ASSISTANCE AND NON-RETURNING STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of Students by Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financial Assistance</td>
</tr>
<tr>
<td>Academic record</td>
<td>0</td>
</tr>
<tr>
<td>To attend a large school</td>
<td>0</td>
</tr>
<tr>
<td>High cost and finance</td>
<td>0</td>
</tr>
<tr>
<td>Change of program</td>
<td>0</td>
</tr>
<tr>
<td>Inflexible rules</td>
<td>0</td>
</tr>
<tr>
<td>For full-time employment</td>
<td>0</td>
</tr>
<tr>
<td>On leave--sickness in family</td>
<td>0</td>
</tr>
</tbody>
</table>

Data were analyzed for 11 students in the population not receiving financial assistance. As Table XXVI indicates, not any students in the population receiving financial assistance were observed to have withdrawn from the College. A probability level of better than .005 was reached in hypothesis 10; that is, statistically speaking there was a significant difference between the students receiving financial assistance and those not receiving financial assistance.
TABLE XXVI

A COMPARISON OF THE NUMBER OF STUDENTS WHO WITHDREW FROM THE COLLEGE FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE AND STUDENTS NOT RECEIVING FINANCIAL ASSISTANCE

<table>
<thead>
<tr>
<th>Financial Assistance</th>
<th>No Financial Assistance</th>
<th>df</th>
<th>$X^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (5.5)</td>
<td>11 (5.5)</td>
<td>1</td>
<td>9.09*</td>
<td>.005</td>
</tr>
</tbody>
</table>

*p < .005

Summary

The purpose of this chapter was to report the statistical findings of this study. The statistical analyses of the results were made by utilizing two statistical techniques--the t-test for two independent samples and the chi-square test of goodness of fit.

In hypothesis 1, no significant difference was found when comparing the mean grade point average of the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 2a, the data obtained from comparing the degree of outside-of-class academic preparation as determined by the mean number of hours in study outside the classroom showed that the students receiving financial assistance studied significantly more hours outside the classroom than the students not receiving financial assistance.
In hypothesis 2b, the students receiving financial assistance had significantly more conferences with their faculty and advisor than the students not receiving financial assistance.

In hypothesis 2c, no significant difference was found when comparing the number of students receiving financial assistance who enrolled in a full academic course load (four courses) and those not receiving financial assistance.

In hypothesis 3a, the comparison of the degree of involvement in the coordinate curriculum of the students receiving financial assistance and the students not receiving financial assistance showed no significant difference in the involvement in intramural athletics.

In hypothesis 3b, when the students who served as Basic Decisions group leaders were compared, no significant difference was found between the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 3c, the comparison of the students who attended more than the minimum required number of weekly convocations showed no significant difference between the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 3d, no significant difference was found between the students receiving financial assistance and those not receiving financial assistance when comparing the number who had served in peer-group elected positions.
In hypothesis 3e, a comparison of religious life showed that the students receiving financial assistance participated significantly more times in the Cooperative Campus Ministry than the students not receiving financial assistance.

In hypothesis 3f, no significant difference was found when comparing the participation of the students receiving financial assistance and those not receiving financial assistance in the residence halls Open-House Program.

In hypothesis 4a, the comparison of involvement in the flexible academic opportunities revealed that students not receiving financial assistance enrolled in significantly more independent or directed study courses than students receiving financial assistance. The inverse of hypothesis 4a was supported.

In hypothesis 4b, no significant difference was found when comparing the participation in the Austin Scholars Program by the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 4c, the comparison of the students receiving financial assistance and those not receiving financial assistance showed no significant difference in their involvement with the inter-institutional cooperative programs.

In hypothesis 4d, no significant difference was determined when comparing the number of summer school credits
received at other colleges by the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 4e, the comparison of the participation in the Departmental Honors Program showed no significant difference between the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 5a, the comparison of the participation in international programs showed that the students not receiving financial assistance enrolled in significantly more international programs than students receiving financial assistance.

In hypothesis 5b, students not receiving financial assistance were found to have enrolled in significantly more off-campus January-term courses than students receiving financial assistance.

In hypothesis 5c, no significant difference was determined when comparing the number of courses audited by the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 6a, the analysis of the data collected regarding participation in aesthetic opportunities indicated no significant difference between the students receiving financial assistance and those not receiving financial assistance when comparing the concentrators in the visual and creative arts.
In hypothesis 6b, no significant difference was found when comparing the participation in cultural appreciation events by the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 7a, the comparison of achievement in the coordinate curriculum revealed that students receiving financial assistance evaluated their experience in the Basic Decisions Program significantly higher than those not receiving financial assistance.

In hypothesis 7b, no significant difference was determined when comparing the placement on community probation or suspension of the students receiving financial assistance and those not receiving financial assistance.

In hypothesis 8, the analysis of the data collected showed no significant difference between the students receiving financial assistance and those not receiving financial assistance when comparing the interest in a pre-professional course of study.

In hypothesis 9, no significant difference was found when comparing the number of students receiving financial assistance and those not receiving financial assistance who missed classes due to illness.

In hypothesis 10, the comparison of students withdrawing from the college revealed that students receiving financial assistance drop out significantly less frequent than those not receiving financial assistance.
CHAPTER V

SUMMARY, FINDINGS, AND RECOMMENDATION

Summary

This study was conducted to compare the students receiving financial assistance with students not receiving such assistance in relation to selected factors during the period of their enrollment at Austin College. The purposes of this study were to examine the students who received financial assistance in relation to those students who did not receive financial assistance in the following ways: (1) academic achievement; (2) academic preparation; (3) involvement in the coordinate curriculum; (4) involvement in the flexible academic opportunities; (5) participation in aesthetic opportunities; (6) achievement in the coordinate curriculum; (7) interest in pre-professional course of study; (8) physical health; and (9) number who withdrew from the College and their reasons for withdrawing.

The students employed for the study were 200 undergraduate students enrolled full time in Austin College, Sherman, Texas. Of this number, 100 students were randomly selected from the population of 485 students who received financial assistance and 100 students were randomly selected
from the population of 615 students who did not receive financial assistance.

The investigator collected the data relevant to the hypotheses from the students' records located in the Educational Advising Center, the Records Office, and the Counseling Center. The data were recorded on format sheets and were treated statistically at the Computer Center at Austin College. The t-test for two independent samples and the chi-square test of goodness of fit were used to analyze the results.

The following hypotheses were tested:

1. The mean grade point average of the students receiving financial assistance will be significantly higher than those not receiving financial assistance.

2. Students who receive financial assistance will have a significantly higher degree of academic preparation than those not receiving financial assistance as determined by the following:

   (a) mean number of hours in study outside the classroom;
   (b) mean number of individual conferences with faculty and advisor; and
   (c) number of students enrolled in a full academic course load (four courses).

3. Students who receive financial assistance will have a significantly higher degree of involvement than those not
receiving financial assistance in the coordinate curriculum as determined by the number of students

(a) who are involved in intramural athletics,
(b) who serve as Basic Decisions group leaders,
(c) who attend more than the minimum required number of weekly convocations,
(d) who serve in peer-group elected positions,
(e) who participate in the Cooperative Campus Ministry, and
(f) who participate in the Open-House Program in the residence halls.

4. Students who receive financial assistance will have a significantly higher degree of involvement than those not receiving financial assistance in the flexible academic opportunities as determined by the number of students

(a) who enroll in independent or directed study courses,
(b) who are members of the Austin Scholars Program,
(c) who are involved with the inter-institutional cooperative programs,
(d) who receive course credits on other college campuses during the summer, and
(e) who participate in the Departmental Honors Program.

5. Students who do not receive financial assistance will have a significantly higher degree of involvement in
the flexible academic opportunities than those receiving financial assistance as determined by the number of students
(a) who have participated in an international program,
(b) who have participated in an off-campus January-term course, and
(c) who have audited one or more courses.

6. Students who do not receive financial assistance will have a significantly higher degree of participation in aesthetic opportunities than those receiving financial assistance as determined by the number of students
(a) who are concentrating in the visual and creative arts, and
(b) who participate in cultural appreciation events.

7. Students who receive financial assistance will have a significantly higher degree of achievement in the coordinate curriculum than those not receiving financial assistance as determined by the number of students
(a) who evaluated the Basic Decisions Program as helpful or very helpful, and
(b) who have not been placed on community probation or suspension.

8. The number of students interested in a pre-professional course of study who do not receive financial
assistance will be significantly higher than those receiving financial assistance.

9. The number of students not receiving financial assistance who miss classes due to illness will be significantly higher than those receiving financial assistance.

10. The number of students not receiving financial assistance who withdraw from the College will be significantly higher than those receiving financial assistance.

Findings

The findings of this study are listed as follows:

1. No significant difference in the mean grade point average was found between the students receiving financial assistance and those not receiving financial assistance.

2. It was found to be significant at better than the .005 level of significance that students receiving financial assistance studied more hours outside the classroom than the students not receiving financial assistance. At better than the .05 level of significance, the financial assistance students had more conferences with their teachers and advisor than the students not receiving financial assistance. No significant difference was found for students who enrolled in a full academic course load (four courses) by students receiving financial assistance and those not receiving financial assistance.
3. Students receiving financial assistance and the students not receiving financial assistance showed no significant difference in their involvement in intramural athletics. No significant difference was found between the two groups who served as Basic Decisions group leaders. The two groups of students who attended more than the minimum required number of weekly convocations showed no significant difference. No significant difference was found between the two groups who had served in peer-group elected positions. When the religious life of the subjects was analyzed, it was found to be significant at better than the .005 level of significance that the financial assistance subjects participated more times in the Cooperative Campus Ministry than the subjects not receiving financial assistance. Finally, no significant difference was found in the participation of the two groups in the residence halls Open-House Program.

4. The involvement in the flexible academic opportunities was found to be significant at better than the .01 level of significance that students not receiving financial assistance enrolled in more independent or directed study courses than students receiving financial assistance, and the inverse of the hypothesis was supported. No significant difference was found in the participation of the two groups in the Austin Scholars Program. The two groups' involvement with the inter-institutional cooperative programs showed no significant difference. No significant difference was
determined in the number of summer school credits received at other colleges by the two groups. When the degree of participation in the Departmental Honors Program was analyzed, no significant difference was found between the two groups. The participation in international programs showed significant difference at better than the .025 level of significance that students not receiving financial assistance enrolled in more international programs than students receiving financial assistance. When the participation in an off-campus January-term course was analyzed, it was found to be significant at better than the .05 level of significance that students not receiving financial assistance enrolled in more off-campus January-term courses than students receiving financial assistance. Finally, no significant difference was determined in the number of courses audited by the two groups.

5. Analysis of the data collected regarding participation in aesthetic opportunities indicated no significant difference between the students receiving financial assistance and the students not receiving financial assistance as indicated by the number of concentrators in the visual and creative arts. Also, no significant difference was determined in the number of cultural appreciation events participated by the two groups.

6. The achievement in the coordinate curriculum was found to be significant at better than the .005 level of
significance and that students receiving financial assistance evaluated their experience in the Basic Decisions Program higher than the students not receiving financial assistance. No significant difference was determined in the placement on community probation or suspension of the two groups.

7. Analysis of the data collected showed no significant difference between the students receiving financial assistance and the students not receiving financial assistance regarding their interest in a pre-professional course of study.

8. Analysis of the data collected showed no significant difference between the students receiving financial assistance and those not receiving financial assistance regarding the number of students missing classes due to illness.

9. The number of students withdrawing from the College was found to be significant at better than the .005 level of significance that students receiving financial assistance drop out less frequently than students not receiving financial assistance.

Recommendation

It is recommended that further study, similar in design to this study, be extended to include conferences with students to determine cause-and-effect relationship. For example, further study could be made to determine if a
student's home environment, other than economic factors, had an effect on similar factors of this study. Such factors as the following could be considered: geographic location, religious preference, educational background of parents, occupation of parents, age of parents, race, number of siblings, position of subject among siblings, out-of-school responsibilities of subject while in high school, and the like.
BIBLIOGRAPHY

Books


Articles


McCombs, Charles E., "What's Wrong with Working?" *Ohio State University Monthly*, IV (September, 1962), 439-441.


Rudolph, Frederick, "Myths and Realities of Student Aid," College Board Review, XLVIII (Fall, 1962), 18-23.


Reports

Austin College Encounter--The Educational Program, A Report of the Educational Programs, Texas, Austin, College, 1969.


Unpublished Materials

Le Grande, W. Boyd, "The Effects of Holding A Work-Study Job on the Academic Achievement of First Semester Freshmen at the University of South Carolina," unpublished paper read before the National Association of Student Financial Aid Officers, Boston, Massachusetts, May 21, 1970.