

REMOTE STORAGE

PLACE IN RETURN BOX to remove this checkout from your record.
TO AVOID FINES return on or before date due.

| DATE DUE | DATE DUE | DATE DUE |
|----------|----------|----------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

A STUDY
AT MICHIGAN

This is to certify that the

thesis entitled

A Study To Determine Why Freshman Scholarship
Students at Michigan State College
Fail to Renew Their Scholarships

presented by

Marvin Volzel

has been accepted towards fulfillment
of the requirements for

Ed.D. degree in Education


Major professor

Submitted
Stat.
1.

Date January 24, 1959

A STUDY TO DETERMINE WHY FRESHMAN SCHOLARSHIP STUDENTS
AT MICHIGAN STATE COLLEGE FAIL TO RENEW THEIR SCHOLARSHIPS

By

Marvin Chesley Volpel

A THESIS

Submitted to the School of Graduate Studies of Michigan
State College of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of
DOCTOR OF EDUCATION

Division of Education

1951

The
to the many
of this sta
population
Carl H. Gross
allied for
in the prof
his friendly
is indebted
for his cons
with the sta
to Mr. Rober
the coll
Registrar, a
for their as
this investi
clerks in th
recording th
who furnishe
to Margaret,
instant enc

ACKNOWLEDGMENTS

The writer wishes to acknowledge his indebtedness to the many persons who have helped him in the preparation of this study. He desires especially to express his appreciation to the members of his Committee, Professors Carl H. Gross, Guy H. Hill, Vernon G. Grove, and Cecil V. Millard for their many helpful suggestions. Special thanks are due Professor Gross, Chairman of the Committee, for his friendly counsel and abundant patience. The author is indebted to William D. Baten, Professor of Mathematics, for his constant encouragement and his material assistance with the statistical phases of this study. Thanks are due to Mr. Robert S. Linton, Registrar, for his permission to use the college records, to Mr. Kermit Smith, Assistant Registrar, and to Mr. Lyle Leisenring, Chief Recorder, for their assistance in compiling the data required for this investigation. A special word of thanks is due the clerks in the Record's Office for their co-operation in recording the data and to the several hundred students who furnished the material for the investigation. Lastly, to Margaret, his wife, special gratitude is due for her constant encouragement and assistance.

A STUDY

AT MICHELLE

Submitted

State

in

3674

Education

A STUDY TO DETERMINE WHY FRESHMAN SCHOLARSHIP STUDENTS
AT MICHIGAN STATE COLLEGE FAIL TO RENEW THEIR SCHOLARSHIPS

[] 785

By

Marvin Chesley Volpel

AN ABSTRACT OF A THESIS

Submitted to the School of Graduate Studies of Michigan

State College of Agriculture and Applied Science

in partial fulfillment of the requirements

for the degree of

DOCTOR OF EDUCATION

Division of Education

1951

Carl H. Gross

A STUDY OF
AT MICHIGAN

During
freshmen and
terms of the
scholarship
be waived by
student main
close of each
student may
than 12 quar
be found to
earn a renew
figure prese
ation.

For s.m.
wards to de
not few yea
the problem
specially fro
between reg
survey of t
Miller to t.

A STUDY TO DETERMINE WHY FRESHMAN SCHOLARSHIP STUDENTS
AT MICHIGAN STATE COLLEGE FAIL TO RENEW THEIR SCHOLARSHIPS

Marvin C. Volpel

During the academic year 1949-1950 there were 386 freshmen studying at Michigan State College under the terms of the entrance scholarship. The terms of the scholarship specify; first, that the regular tuition fees be waived upon entrance and each term thereafter, if the student maintains a one-point six (C+) average at the close of each academic year in June; and second, that no student may participate in these scholarships for more than 12 quarters. At the end of the freshman year, it was found that 41 per cent of those freshmen failed to earn a renewal of the scholarship award. This alarming figure presented a problem which warranted an investigation.

For some long time, colleges have made tuition-free awards to deserving high school graduates but only in the past few years have they given them in such large numbers. The problem presented here stems from this fact and consequently from the fact that little research has been undertaken regarding the success of scholarship students. A survey of the literature failed to uncover any study similar to this investigation.

This

very so far

grounds, and

for the rest

and first of

divided into

time during

were cancelled

whose scholars

was selected

to furnish a

winter admin

several groups

The ques

the investiga

freshmen fail

fault of the

ates for col

falling to me

fault of the

responsibility

other reasons

college? And

the answers t

Admission Office

in order that

This study was undertaken to determine, if possible, why so many freshmen, presumably of good high school backgrounds, did not maintain the grade point average required for the renewal. The writer investigated the high school and first year college records of 586 students. These are divided into groups of (a) 33 students who withdrew sometime during the year, (b) 158 students whose scholarships were cancelled at the end of the year, (c) 195 students whose scholarships were renewed, and (d) 200 regular freshmen selected at random. To supplement this material and to furnish some subjective evidence for the research, the writer administered a questionnaire to the members of the several groups mentioned.

The questions which follow serve as guideposts for the investigation to determine why 41 per cent of these freshmen failed to renew their scholarships. Is it the fault of the high school in failing to prepare its graduates for college work? Is it the fault of the college in failing to meet its obligations to the student? Is it the fault of the student himself in failing to meet the responsibilities his new environment requires? Are there other reasons why these students did not do well in college? And can anything be done to remedy the situation? The answers to these questions should prove beneficial to guidance officials in both secondary schools and colleges in order that they might promote better adjustment of

college free

The evi

numerous col

1. More than

came from sm

came from la

North Centra

2. Those wh

averages and

Psychological

bright studen

3. Fifty-nin

dissatisfied

4. The cance

terest in the

toward colle

students were

earning a res

5. outside e

scholarship o

6. Those wh

study facilit

very unsatis

7. The schol

of their son

college freshmen.

The evidence studied in this investigation revealed numerous conclusions, a few of which are summarized here:

1. More than half of those who lost their scholarships came from small high schools. The more successful students came from large high schools which were accredited by the North Central Association.
2. Those who lost their scholarships had lower high school averages and scored way below the renewal students on the Psychological Examinations. As a group they were not bright students in the first place.
3. Fifty-nine per cent of the cancellation students were dissatisfied with the comprehensive examination system.
4. The cancellation students stated that they lacked interest in their classes and expressed apathy in general toward college work. On the other hand, the renewal students were interested in achieving their goals and earning a renewal of the award.
5. Outside employment was definitely a cause of many scholarship cancellations.
6. Those who lost their scholarships stated that the study facilities in their respective dormitories were very unsatisfactory.
7. The scholarship students themselves attribute the loss of their scholarships to their ineffective habits of study.

CHAPTER

I. THE P

II. PROCE

III. REVIEW

IV. PRESEN
THE

V. PRESEN
REC

VI. PRESEN
COL

VII. RESUL

VIII. IMPL

BIBLIOGRAPHY

APPENDIX .

TABLE OF CONTENTS

| CHAPTER | PAGE |
|--|------|
| I. THE PROBLEM AND ITS BACKGROUND | 1 |
| II. PROCEDURE | 21 |
| III. REVIEW OF RELATED LITERATURE | 32 |
| IV. PRESENTATION AND ANALYSIS OF THE RECORDS OF THE 33 WITHDRAWAL STUDENTS | 57 |
| V. PRESENTATION AND ANALYSIS OF THE HIGH SCHOOL RECORDS OF THE 553 STUDENTS | 66 |
| VI. PRESENTATION AND ANALYSIS OF THE FIRST YEAR COLLEGE RECORDS OF THE 553 STUDENTS | 108 |
| VII. RESULTS OF THE QUESTIONNAIRE | 141 |
| VIII. IMPLICATIONS AND CONCLUSIONS | 193 |
| BIBLIOGRAPHY | 215 |
| APPENDIX | 223 |

252

I.

II.

III.

IV.

V.

VI.

VII.

VIII.

IX.

X.

LIST OF TABLES

| TABLE | PAGE |
|---|------|
| I. Summary of Scholarship Awards Made Available to High School Graduates by Michigan State College | 14 |
| II. Summary of Freshman Scholarship Awards, Cancellations, and Renewals at Michigan State College 1949-1950 | 19 |
| III. Distribution by Percentages of Grades Earned by Students at Washington Square College | 41 |
| IV. Reasons Given by the 33 Withdrawal Students for Selecting Michigan State College | 58 |
| V. Type of School from Which the 33 Withdrawal Students Were Graduated | 59 |
| VI. Size of High Schools from Which the Students Came | 69 |
| VII. Summary of Data Regarding Size of Graduating Class | 71 |
| VIII. Size of High School from Which All the Students Came | 76 |
| IX. Distribution of Scholarship Students from Class A and Class B High Schools | 77 |
| X. Distribution of Scholarship Students from Class C and Class D High Schools | 78 |

1883

I. Pers

St

II. Dis

St

III. Dis

St

IV. Dis

St

V. Dis

St

VI. Dis

St

VII. Ave

P

VIII. The

i

IX. Com

X. Rec

P

XI. Gra

O

XII. Ar

S

XIII. Hig

B

S

| TABLE | PAGE |
|--|------|
| XI. Percentage Distribution of Scholarship | |
| Students by Size of Schools | 78 |
| XII. Distribution of the 386 Scholarship | |
| Students by Sex | 81 |
| XIII. Distribution of the Scholarship Students | |
| by Age | 83 |
| XIV. Number of Students Having Parents | |
| Deceased or Divorced | 84 |
| XV. Fathers' Occupations as Listed by | |
| Students | 86 |
| XVI. Distribution Showing Number and Per Cent | |
| of Parents Employed | 87 |
| XVII. Average Combined Monthly Income of the | |
| Parents | 90 |
| XVIII. The Accredited High Schools Represented | |
| in This Study | 95 |
| XIX. Course Pursued in High School | 97 |
| XX. Recommendations Given by High School | |
| Principals | 98 |
| XXI. Grades Required for Recommendation to | |
| College | 99 |
| XXII. An Indication of How Well Scholarship | |
| Students Will Perform in College . . | 99 |
| XXIII. High School Record, Principal's Action, | |
| and Freshman Averages of A Few | |
| Scholarship Students | 101 |

ME

MLV. High

MLV. Compos

Gr

MLV. Decile

MLV. Standa

Distr

MLV. Freque

Tabu

MLV. Below

trib

Test

MLV. Below

tri

MLV. Honor

Dur

The

MLV. Avera

Hon

Bar

MLV. Perc

Bar

MLV. Enro

MLV. Perc

Sc

| TABLE | PAGE |
|--|------|
| XXIV. High School Grade Point Average . . . | 104 |
| XXV. Composite High School Averages of All Four Groups | 105 |
| XXVI. Decile Averages on the Psychological Tests | 110 |
| XXVII. Standard Deviations of the Decile Distribution | 111 |
| XXVIII. Frequencies of Psychological Test Scores Tabulated by Deciles | 112 |
| XXIX. Below Average and Above Average Decile Dis- tributions on the General Intelligence Test | 115 |
| XXX. Below Average and Above Average Decile Dis- tributions on the General Reading Test | 115 |
| XXXI. Honor Point Averages of the Four Groups During Their High School Years and Their Freshman Year in College . . . | 117 |
| XXXII. Average Number of Credits, Average Number of Honor Points, and Grade-Point Averages Earned During the Freshman Year . . . | 118 |
| XXXIII. Percentage of Sample Populations in the Basic College | 123 |
| XXXIV. Enrollment of Students by Schools . . . | 124 |
| XXXV. Percentages of Sample Populations in the School of Agriculture | 125 |

MEME

MMI. Per

S

MMI. Per

So

MMI. Per

So

MMI. Per

So

II. Per

So

II. Per

in

S

III. Freq

M

D

III. Dis

IV. Num

T

IV. Ret

IV. Que

Y

P

IV. Que

P

t

| TABLE | PAGE |
|---|------|
| XXXVI. Percentages of Sample Populations in the School of Business and Public Service | 125 |
| XXXVII. Percentages of Sample Populations in the School of Engineering | 126 |
| XXXVIII. Percentages of Sample Populations in the School of Home Economics | 127 |
| XXXIX. Percentages of Sample Populations in the School of Science and Arts | 128 |
| XL. Percentages of Sample Populations in the School of Veterinary Medicine | 128 |
| XLI. Percentages of All Scholarship Students in the Various Schools Who Lost Their Scholarships | 129 |
| XLII. Frequency Distribution of Subjects in Which Scholarship Students Received D's and F's | 134 |
| XLIII. Distribution of Major Fields of Emphasis | 136 |
| XLIV. Number of Students Who Returned for Their Second Year | 140 |
| XLV. Returns Received on Questionnaires | 146 |
| XLVI. Question 1. Was the Total Program of Your High School Sufficient to Prepare One for College? | 147 |
| XLVII. Question 2. Do You Feel That You, Personally, Were Prepared to Cope with the Demands Made on College Freshmen? | 148 |

XXI

LXXII. Ques

P

M

LXXIII. Ques

a

Ac

L. Ques

FI

LX. Ques

Co

St

LXX. Ques

3

LXXI. Ques

T

M

o

(

LXIV. Ques

T

M

t

LXV. Ques

A

Y

| TABLE | PAGE |
|---|------|
| XLVIII. Question 3. Do You Think That You Were Prepared to Meet the Academic Demands Made on College Freshmen? | 149 |
| XLIX. Question 4. Was the Size of Your School a Handicap to Your Academic Achievement as a College Student? . | 150 |
| L. Question 5. Did You Receive Adequate Educational Guidance in High School? | 151 |
| LI. Question 6. In What Areas Do You Consider Your High School Program Strong? | 152 |
| LII. Question 7. In What Areas Do You Consider Your School Program Weak? . | 154 |
| LIII. Question 8. What Advice Can You Give to This Year's Scholarship Group Which Might Enable Them to Earn a Renewal of the Scholarship Award? (Cancellation Group) | 155 |
| LIV. Question 9. What Advice Can You Give to This Year's Scholarship Group Which Might Enable Them to Earn a Renewal of the Scholarship Award? (Renewal Group) | 156 |
| LV. Question 9. Did the College Take Adequate Steps to Properly Orient You to College Life? | 157 |

RECE

WT. 200

WT. 200

WT. 200

WT. 200

WT. 200

WT. 200

WT. 200

WT. 200

WT. 200

| TABLE | PAGE |
|--|------|
| LVI. Question 10. Were You Properly Enrolled with Respect to Variety of Courses, Schedule of Classes, Etc.? | 158 |
| LVII. Question 11. If You Were Not Properly Enrolled with Respect to Variety of Courses, Schedule of Classes, Etc., What Was Wrong? | 159 |
| LVIII. Question 12. Was Class Size in College any Handicap to You? And If So, What Size of Class? | 160 |
| LIX. Question 13. Were You Satisfied with the Regulation Regarding the Comprehensive Examinations and Subsequent Marks in the Basics? | 161 |
| LX. Question 14. If Not Satisfied, What Was Wrong? | 162 |
| LXI. Question 15. For How Long a Time Had You Been Planning to Attend College? | 162 |
| LXII. Question 16. Did Your Parents Help You Plan Your High School Educational Program? | 163 |
| LXIII. Question 17. Are Your Parents in Favor of Your Attending College? | 164 |
| LXIV. Question 18. Is Your Father a College Graduate? | 164 |

THE

IV. 22

LV. 22

LVI. 22

LVII. 22

LX. 22

LXI. 22

LXII. 22

LXIII. 22

LXIV. 22

| TABLE | PAGE |
|---|------|
| LXV. Question 19. Is Your Mother a College Graduate? | 165 |
| LXVI. Question 20. Did You Have a Regular Study Program Last Year? | 165 |
| LXVII. Question 21. Did You Make Use of the College Counseling Service Last Year? | 166 |
| LXVIII. Question 22. If You Made Use of the Counseling Service, for What Purpose? | 167 |
| LXIX. Question 23. How Much Time Did You Spend Studying During the <u>Daytime</u> Last Year? | 168 |
| LXX. Question 24. How Much Time Did You Spend <u>Per Week</u> Studying in the College Library? | 169 |
| LXXI. Question 25. Was There any Class or Course Which You Let Slide Because of Lack of Interest (a) in the Subject? (b) in the Instructor? (c) or Because of Poor Instruction? | 170 |
| LXXII. Question 26. Were Your Absences from College Classes Excessive, Moderate, or Infrequent? | 170 |
| LXXIII. Question 27. How Many Times per Term Did You Spend the Week-End Away from Your Regular Place of Residence? . . . | 171 |

2512

Q. 117. Q.

Y.

A.

Q. 118. Q.

A.

I.

Q. 119. Q.

A.

I.

Q. 120. Q.

A.

I.

Q. 121. Q.

I.

M.

Q. 122. Q.

D.

C.

Q. 123. Q.

Y.

I.

Q. 124. Q.

Y.

P.

| TABLE | PAGE |
|---|------|
| LXXIV. Question 28. Did the Subjects Taken in Your Freshman Year Contribute to the Attainment of Your Plans? | 172 |
| LXXV. Question 29 (a). In What Particular Area Could Your Campus Life Have Been Improved by Yourself? | 172 |
| LXXVI. Question 29 (b). In What Particular Area Could Your Campus Life Have Been Improved by the College? | 173 |
| LXXVII. Question 29 (c). In What Particular Area Could Your Campus Life Have Been Improved by the High School? | 174 |
| LXXVIII. Question 30. Do You Think This Improvement Would Have Raised Your Marks? | 176 |
| LXXIX. Question 31. What More Could You Have Done During the Year to Further Your Own Academic Achievement? | 177 |
| LXXX. Question 32. Did You Seek Help from Your Instructors Regarding Your Work in College Last Year? | 177 |
| LXXXI. Question 33. When Sought, Did You Get the Necessary Amount of Time from Your Instructors to Discuss Your Personal Classroom Difficulties? . . . | 178 |

182

1821. 2

1822. 2

1823. 2

1824. 2

1825. 2

1826. 2

1827. 2

1828. 2

1829. 2

1830. 2

| TABLE | PAGE |
|--|------|
| LXXXII. Question 34. Were the Demands of the College Instructors Greater Than You Had Anticipated? | 178 |
| LXXXIII. Question 35. Were You Satisfied with the Quality of the College Instruction in General? | 179 |
| LXXXIV. Question 36. If Not, What Was Wrong? | 180 |
| LXXXV. Question 37. What Things, if Any, Handicapped You in Your College Work? (Cancellation Group Only) | 181 |
| LXXXVI. Question 38. What Influences, if Any, Inspired You to Do Better Work Than You Would Otherwise Have Done? . . . | 182 |
| LXXXVII. Question 39. How Many Hours per Week Did You Spend in Gainful Employment? | 183 |
| LXXXVIII. Question 40. Where Did You Live While a Freshman at Michigan State College? | 184 |
| LXXXIX. Question 41. Was Your Place of Residence Last Year a Handicap to You as Far as Your Achievement in College Was Concerned? | 185 |
| XC. Question 42. If So, What Was Wrong? . | 185 |
| XCI. Question 43. Did You Over-Participate in Extraclass Activities to the Detriment of Your Studies? | 186 |

222

III. 222

III. 222

III. 222

| TABLE | PAGE |
|---|------|
| XCII. Question 44. If So, in What Areas and for How Many Hours Per Week? . . . | 187 |
| XCIII. Question 45. (To Cancellation Group) What Were the Main Reasons That You Did Not Earn the 1.6 Average Last Year? | 188 |
| XCIV. Question 45. (To Renewal Group) What Factors Contributed to Your Academic Success As a Freshman at Michigan State College? | 190 |

TABLE

1. A Facsimile

2. Distribut

Students

3. Distribut

Students

4. Distribut

of Scho

5. Distribut

Only th

6. Distribut

Both Pa

7. Chart Sta

School

Cancel

8. The Deci

9. Frequenc

Genera

10. Frequenc

Genera

11. Percenta

Entire

Studen

LIST OF FIGURES

| FIGURE | PAGE |
|---|------|
| 1. A Facsimile of Student Record Card | 29 |
| 2. Distribution of Cancellation and Renewal Students from Large and Small High Schools . | 67 |
| 3. Distribution of Cancellation and Renewal Students from All High Schools | 70 |
| 4. Distribution of All Students According to Size of School from Which They Came | 74 |
| 5. Distribution of Students from 277 Homes Where Only the Father is Employed | 88 |
| 6. Distribution of Students from 76 Homes Where Both Parents Are Employed | 88 |
| 7. Chart Showing Percentages of Accredited Schools Represented by the Renewal and Cancellation Students | 94 |
| 8. The Decile Distribution of Average Test Scores | 109 |
| 9. Frequency Distribution of Decile Scores on the General Intelligence Test | 113 |
| 10. Frequency Distribution of Decile Scores on the General Reading Test | 114 |
| 11. Percentages of Enrollments by Schools of the Entire Freshman Class and the Scholarship Students Whose Awards Were Cancelled . . . | 130 |

1973

10. Percentage

Entire

by School

Losses A

| FIGURE | PAGE |
|--|------|
| 12. Percentages of Enrollments by Schools of the Entire Freshman Class versus Percentages by Schools of Total Scholarship Students Whose Awards Were Renewed or Cancelled . . | 131 |

CHAPTER I

THE PROBLEM AND ITS BACKGROUND

Michigan State College, founded in 1855 as an agricultural college, has grown to the stature of a university. The founding and the expansion are a natural outgrowth of Michigan's policy of providing higher education for its youth. The legislature in 1855 provided for the purchase of land and the construction of College Hall, some farm buildings, and, shortly, four brick residences for the faculty because the State could not for long neglect its largest occupational group.¹ No sooner was agriculture provided for in the state system of higher education than other groups appeared with comparable needs. As one vocation after another sought the advantages of college work, Michigan State College enlarged its program to meet the demand.

The curriculum in scientific agriculture that emerged was committed to providing a liberal education and an application of the discoveries of science in the practice of agriculture. One-fourth of the student's fifteen or twenty hours in the classroom were devoted to such subjects as English, history, philosophy, and one-half to the sciences.

The first forty years of the college were precarious

¹The Seventh Census of the United States, 1850.
(Washington: Robert Armstrong, Public Printer, 1853), pp.
lxx-lxxix.

ones, but the three decades following 1895 were ones of growth in enrollment and expansion in program, due in part to the introduction of new curricula to meet new demands. Other vocational groups were seeking higher education and the emphasis here on liberal education, plus science, plus practical application, made this college a peculiarly-fit place to provide such instruction. Opened in 1885, the course in engineering was enrolling one-third of the students of the College by 1896. In response to the request of women's groups in the State, the home economics course was opened in 1896. The expansion of the curriculum to include forestry and veterinary medicine came a few years later because of the desire of agricultural students to secure more specialized training in their intended occupations. The applied science and the liberal arts curricula appeared in 1921 and 1924 respectively.

The growth from 400 students in 1896 to 7,000 in 1940 to 16,000 in 1948² was a reflection of the increasing capacity of the College to serve the youth of the State. To meet the demand in the last quarter century for specialized training in other vocations, more and more curricula were added. But the major innovation of these years was the Basic College which was opened in 1944 to re-emphasize

²Information supplied by the Office of the Registrar, Michigan State College.

re-organizing
education has
had been crowding
courses and s
size for a com
ed by providing
courses, at le
at during his

Beginning
September, 194
been enrolled
sophomore year

The ph
by the college

Basic
broad four
intelligence
social, and
of these
with them
.....

The ge
Michigan
ents who
and will
knowledge
covery of
equip the
individuals

³Michi
lating: Mich

⁴Ibid.

and re-organize the function of general education. General education has always been an ideal of the College,³ but it had been crowded by the increasing number of vocational courses and specialized courses so that few students found time for a comprehensive coverage. A compromise was effected by providing a series of seven generalized and integrated courses, at least five of which are required of every student during his two years in the Basic College.

Beginning with the freshman class which entered in September, 1944, all Michigan State College students have been enrolled in the Basic College during their freshman and sophomore years.

The philosophy of the Basic College is best explained by the college catalog as follows:

Basic general education is designed to provide a broad foundation on which students may build an intelligent interest in personal, family, vocational, social, and civic problems, a better understanding of these problems, and a greater ability to cope with them.

.

The general education program as planned at Michigan State College should prove helpful to students who are uncertain about their educational plans and will give opportunity to explore broad areas of knowledge and experience, will aid them in the discovery of their own interests and aptitudes, and equip them better to assume their responsibility as individuals and as citizens of a democracy.⁴

³Michigan State College Catalog 1949-1951. (East Lansing: Michigan State College, 1950), p. 51.

⁴Ibid., p. 81.

The cur

1. Will
for men and

2. Reg
elective of
the two-ye

3. Seve
of careful

Michigan

ish this type

Wilege program

ures of other

the campus to

ered by these

segment of bas

icipation,

five of the co

5 A feat
Michigan State
students who
for the bache
number of sho
these student
tical agricul
a number of s
science, 2 ye
course in foo

6 Loc.

*The s
ents of the
Biological Sc
Elective Liv
and Fine Arts
quarters and

The curricula for Basic College Students includes:

1. Military science for men and physical education for men and women.
2. Required introductory courses and exploratory and elective courses to meet the requirements for either the two-year terminal or the regular four-year course.⁵
3. Seven comprehensive core courses* each comprised of carefully chosen, closely related subject matter.⁶

Michigan State College was one of the first to establish this type of general education program and the Basic College program has had national recognition. Representatives of other institutions of higher education have come to the campus to study the plan in operation. The areas covered by these seven basic courses constitute an important segment of basic or general education. To insure wide participation, students are required to take a minimum of five of the core courses, selected on the following basis:

⁵A feature of the system of basic education at Michigan State College recognizes that over half of the students who enter college do not complete the requirements for the bachelor's degree. Michigan State College offers a number of short courses and two-year terminal courses for these students. Among these are: 1 year course in practical agriculture, 2 year terminal course in agriculture and a number of short courses, 2 year course in secretarial science, 2 year curriculum in home economics, and a 2 year course in food service.

⁶Loc. cit.

*The seven basic courses that make up the departments of the Basic College are: Written and Spoken English, Biological Science, Physical Science, Social Science, Effective Living, History of Civilization, and Literature and Fine Arts. Each of the basic courses covers three quarters and carries a total of nine credits.

1. High
students.

2. High

3. High

4. High
Fine Arts.

5. Any

In high

and in view of

would have the

higher learning

ments for admi

in this field,

able to enrol

1961 states th

High School
College.

I. For

1.

2.

⁷ Ibid.

*The ap
Records Office
here this rec
mitted regar

1. Written and Spoken English—required of all students.
2. Either Biological Science or Physical Science.
3. Either Social Science or Effective Living.
4. Either History of Civilization or Literature and Fine Arts.
5. Any of the three core courses not already taken.⁷

In light of the increased enrollments in late years and in view of the almost universal belief that every adult should have the opportunity to enroll in an institution of higher learning, many colleges have lowered their requirements for admission. Michigan State College has pioneered in this field, too. Now it is possible for almost any adult to enroll in college. The college catalog for 1949-1951 states these requirements for admission:

High School Requirements for Admission to the Basic College.

- I. For graduates from accredited high schools:
 1. A satisfactory high school record. This means meeting the "College recommending grade" as designated by the high school.*
 2. A minimum of 15 units. (A unit meaning a subject pursued through a school year with not less than four recitation periods each week). Three or more units must be in

⁷Ibid., p. 82.

*The application for admission blanks filed in the Records Office of Michigan State College revealed cases where this requirement was not met and the applicants were admitted regardless.

3.

II. Fo
te

1.

2.

3.

Other
No, in the ma
Graduates 1

Ibid.,

English, and seven chosen from the following groups: foreign language, mathematics, sciences, and social studies. Three additional units either from the subjects just mentioned or from vocational studies, such as agriculture, home economics, commercial, or industrial are required. Music may be presented. The other units presented may be from any subjects accepted by the high school toward graduation.

3. Satisfactory recommendation from the high school principal or other proper administrative officer as to attitudes, habits, emotional stability, general conduct, character, ability, and capacity to indicate that the candidate will make a suitable college student.

II. For those not qualified for admission under the terms of I.

1. The applicant must have passed his eighteenth birthday except in the case of high school graduates.
2. Entrance examinations from the following areas will be required:
 - a. Communications
 - b. Biological Science
 - c. Physical Science and Mathematics
 - d. History and Social Studies
 - e. Literature and Fine Arts

The Board of Examiners will determine which of these examinations will be required.

3. The results of the entrance examinations, the applicant's previous records, and the results of intelligence and aptitude tests will be used by the Board of Examiners in judging the candidate for admission.⁸

Other colleges in Michigan have become very lenient, too, in the matter of admissions and since 1946 have accepted graduates from accredited high schools in Michigan

⁸Ibid., p. 83.

irrespective

was the begin

several new cl

have are at

Michigan membe

On Nove

usually adopted

1. It
the Michigan
changes, be
school who
low in Sect
is as follo

The coll
jects purs
ates of sel
are recomm
students in

This A
admitted to
which they

Seconda
basic cours
entering te
ricula. It
vide accele
college cur
secure such

2. It i
be governe
ity for and
initiating
ing:

a. A pr
personal fi
data of var

irrespective of the subject matter patterns followed. This was the beginning of the College Agreement Plan, one of the several new college admission plans in operation today. There are at this date 123 high schools and 36 colleges in Michigan members of the College Agreement Plan.⁹

On November 7, 1946 the following proposal was unanimously adopted by the Michigan College Association:

1. It is proposed that the College Agreement of the Michigan Secondary Curriculum Study, with certain changes, be extended to include any accredited high school whose staff will make the commitments noted below in Section 2. The wording of the proposed Agreement is as follows:

The college agrees to disregard the pattern of subjects pursued in considering for admission the graduates of selected accredited high schools, provided they are recommended by the school from among the more able students in the graduating class.

This Agreement does not imply that students must be admitted to certain college courses and curricula for which they cannot give evidence of adequate preparation.

Secondary schools are urged to make available such basic courses as provide a necessary preparation for entering technical, industrial, or professional curricula. It is recommended further that colleges provide accelerated programs of preparation for specialized college curricula for those graduates who are unable to secure such preparatory training in high school.

2. It is proposed that high schools which seek to be governed by this Agreement shall assume responsibility for and shall furnish evidence that they are initiating and continuing such procedures as the following:

a. A program involving the building of an adequate personal file about each student, including testing data of various kinds, anecdotal records, personality

⁹Information secured from the Office of the Registrar of Michigan State College on July 23, 1951.

inventori
staff work
summary of
college.

b. A
purposes a

c. Pro
pupils.

d. A c
tation thr
the nature
specialized
to devote
of the pub

3. It
be establish
to recommen
inclusion
to time wh
on the lis
sentatives
the Michig
lic Instru
of the Mich
served by
the Bureau
the Depart
Committees

4. It
or will no
continue t
those stud

This pl
been endorsed
Michigan. Acc

10
W. H.
Michigan, Sch

11
Infor
war, Michigan

inventories, achievement samples, etc. The high school staff would assume responsibility for developing a summary of these personnel data for submission to the college.

b. A basic curriculum study and evaluation of the purposes and program of the secondary school.

c. Procedures for continuous follow-up of former pupils.

d. A continuous program of information and orientation throughout the high school courses regarding the nature and requirements of certain occupations and specialized college courses. During the senior year, to devote special emphasis to the occupation or college of the pupil's choice.

3. It is further recommended that a joint committee be established to study application of new schools and to recommend certain of these schools to colleges for inclusion in the Agreement; also to determine from time to time whether the criteria have been met in the schools on the list. This joint committee would include representatives of the Michigan Secondary School Association, the Michigan College Association, the Department of Public Instruction, and the Department of Superintendence of the Michigan Education Association. It would be served by a part-time staff supplied from three sources: the Bureau of Co-operation of the University of Michigan, the Department of Public Instruction, and the Inservice Committees of various Michigan colleges and universities.

4. It is understood that high schools which cannot or will not make and observe the above commitments will continue to employ the major and minor sequences for those students who wish to attend college.¹⁰

This plan of admission, as was stated before, has been endorsed by over 120 high schools in the State of Michigan. According to college authorities¹¹ many students

¹⁰W. N. Atkinson, "College-High-School Agreement in Michigan", School and Society, 65:145, February 22, 1947.

¹¹Information secured from the Office of the Registrar, Michigan State College.

enter Michigan
the College A
ditional 15
the college h
mitted unde
records were
that they were

In keep
mission to
changes in its
a greater numb
the formal ed

Since 1
scholarships t
who have made
non to these
there are sch
tions as rewa
scholarships
done in a fie
economics, or

12 Info
Michigan Stat

13 The
age to make

enter Michigan State College from these high schools under the College Agreement Plan but they still present the traditional 15 units of required work in the sequential subjects. The college has no records of the exact number of freshmen admitted under this plan alone.¹² Of the 586 students whose records were studied for this investigation only 8 indicated that they were entering under the College Agreement Plan.

In keeping with the changes in the requirements for admission to Michigan State College there have also been changes in its program of scholarships and awards to permit a greater number of able students to take advantage of further formal education.

Since 1926 Michigan State College has been awarding scholarships to students already enrolled in the college who have made outstanding scholarship records.¹³ In addition to these scholarships awarded outright by the college there are scholarships given by individuals and organizations as rewards or for purposes of research. These scholarships take the form of rewards for excellent work done in a field of specialization such as forestry, home economics, or music. Others are given to the outstanding

¹²Information secured from the Records Office, Michigan State College.

¹³The 1926 catalog is the first Michigan State College to make any mention of scholarship awards.

athlete, to
class, or to
unity. Ex
by the Kroger
Milk Company,
are given for
proof of value

L. C. Plant Ma
Economics Club
the Varsity C

Through
ceased gradu
over 1,000¹⁴
receiving tut
received their
matriculated

Beginn
an unspecific
been on the
raised the t
records and

14 Inc
of the Schol

15 Fro
scholarships
attendance a
year. Appli
with the Reg
sttee. ■

athlete, to the best Jewish student in the Junior or Senior class, or to the outstanding student in a sorority or fraternity. Examples of the industrial awards are those given by the Kroger Company, the J. W. Knapp Company, the Borden Milk Company, and Sears, Roebuck and Company. These awards are given for various types of research work which should prove of value to the donors. Other typical awards are the L. C. Plant Mathematical Scholarship Award, the Home Economics Club Scholarship Award, the Zonta Club Award, and the Varsity Club Scholarship Award.

Through the years the number of scholarships has increased gradually so that at the present time there are over 1,000¹⁴ students at Michigan State College who are receiving tuition-free awards. Many of these students received their awards as entrance scholarships when they matriculated at Michigan State College.

Beginning with the fall of 1926 the College offered an unspecified number of scholarships to students who had been on the campus for two years. These scholarships waived the tuition fees for students with high academic records and with a real financial need.¹⁵

¹⁴Information supplied by the Office of the Chairman of the Scholarship Committee, Michigan State College.

¹⁵From the 1926 catalog: "Unless otherwise stated, scholarships are available only to students who have been in attendance at the College during the first two terms of the year. Applications may be filed on or before April first with the Registrar, who will refer them to the proper committee."

This
was the Coll
men, one for
scholarships
be renewed fo
year was of h
that this qual

Then in
decided that t
student's enti
quality.¹⁷

Beginni
ships for inco
district was r
total of 64.¹⁸

¹⁶From
scholarships.
able for fres
State of Mich
by the College
terms. At the
a scholarship
when the first
for these awa
trict, working
cipals."

¹⁷From
Committee on
through the ex
high rank."

¹⁸From
scholarships
district of t
continued on

This policy was in effect until the fall of 1934 when the College offered 32 scholarships to incoming freshmen, one for each senatorial district in the State. These scholarships waived the tuition fees for 3 terms and would be renewed for the second year only if the work of the first year was of high quality. No specification was made of what this quality should be.¹⁶

Then in 1936 the College Committee on Scholarships decided that the award could be continued through the student's entire course if his work continued to be of high quality.¹⁷

Beginning with the fall of 1941 the number of scholarships for incoming freshmen was doubled. Each senatorial district was now entitled to two scholarships making a total of 64.¹⁸

¹⁶From the 1934 catalog: "Alumni undergraduate Scholarships. Each year thirty-two scholarships are available for freshmen, one for each senatorial district of the State of Michigan. These scholarships amount to a waiver by the College of the \$32.50 course fee per term for three terms. At the discretion of the Committee on Scholarships a scholarship may be continued through the second year, when the first year's work is of high rank. Nominations for these awards are made by alumni committees in each district, working in co-operation with the high school principals."

¹⁷From the 1936 catalog: "At the discretion of the Committee on Scholarships a scholarship may be continued through the entire course when the student's work is of high rank."

¹⁸From the 1941 catalog: "Each year sixty-four scholarships are available for freshmen. Each senatorial district of the State receives a minimum of one scholarship. (continued on page 12)

The State of Michigan became still more liberal with its scholarships to incoming freshmen in the fall of 1948. The State Legislature passed a resolution that at least one tuition-free scholarship should be made available to every high school in the State providing there is a suitable candidate. This made more than 650 scholarships available throughout the State to graduates of Michigan high schools.

The 1946-1948 Michigan State College Catalog which makes the announcements for the year 1948-1949 summarizes the scholarship regulations which were in effect during the term of this study as follows:

MICHIGAN STATE COLLEGE SCHOLARSHIPS. By authorization of the State Board of Agriculture, a large number of Michigan State Scholarships have been made available. These scholarships are granted by the Faculty Committee on Scholarships on recommendation by members of the faculty and are subject to approval by the President. Factors given consideration in the granting of these scholarships are: need, aptitude for and performance in college work, effective participation in extra-curricular activities which aid in rounding out a student's general education and contribute to the advancement of the College, and demonstration of superior qualities of citizenship.

Special consideration will be given to high school graduates who have shown special aptitudes in music (including orchestra and band), journalism, public speaking, drama, physical education, and student government; to 4-H club members; to a limited number

18 (Continued) These scholarships amount to a waiver of \$40.00 per term for three terms. . . . may be continued through the entire course....."

of foreign
State Un
ially re
ate Studi

The an
Faculty
need and
shall com
and fees
maintenan
and, at t
additional
have earn
College a
record of

No stu
for more

Table 1

Parting of f

1926 until th

1941
Classing: Mich

of foreign students; to graduates of our Michigan State Junior Colleges, and to graduate students specially recommended by the Dean of the School of Graduate Studies.

The amount to be awarded will be determined by the Faculty Committee on Scholarships in consideration of need and the achievements of the student. Awards shall consist of waiver of part or all of the tuition and fees on a quarter to quarter basis, may include maintenance in particularly needy and deserving cases and, at the discretion of the committee, may include additional graduated awards to undergraduates who have earned fifty or more credits at Michigan State College and who have maintained a total academic record of 1.6 or better.

No student may participate in these scholarships for more than 12 quarters.¹⁹

Table I summarizes the regulations governing the granting of freshmen scholarships from their inception in 1926 until the present.

¹⁹Michigan State College Catalog 1946-1948. (East Lansing: Michigan State College, 1946), p. 68.

SINCE
HIGH

| Year** | Num ava |
|--------|---------------|
| 1936 | Some |
| 1934 | 32 |
| 1936 | 32 |
| 1941 | 64 |
| 1948 | Large numc |

* The t
there were 32
one for each
timed over a
was of high r

** These
then new regul
sent any class

TABLE I

SUMMARY OF SCHOLARSHIP AWARDS MADE AVAILABLE TO
HIGH SCHOOL GRADUATES BY MICHIGAN STATE COLLEGE*

| Year** | Number available | When granted | How allotted | Duration | Restrictions |
|--------|------------------|---------------|------------------------|---------------|------------------------|
| 1926 | Some | After 2 terms | By committee | No statement | No statement |
| 1934 | 32 | On admission | By senatorial district | 2 years | High rank |
| 1936 | 32 | On admission | By senatorial district | Entire course | High rank |
| 1941 | 64 | On admission | By senatorial district | Entire course | High rank |
| 1948 | Large number | On admission | Every high school | 12 quarters | 1.6 average in college |

*The table is read as follows: In the fall of 1934 there were 32 scholarships available to incoming freshmen, one for each senatorial district in Michigan, and were continued over a two year period if the student's college work was of high rank.

**These years were chosen because they were the years when new regulations went into effect. They do not represent any class interval.

The policy now in force at Michigan State College is amplified by a bulletin²⁰ released through the Co-ordinator of High School Co-operation and distributed to all high schools in the state. Students thus learn about the availability of these scholarships through their high school principals, through college career days at which time Michigan State College is represented by the Co-ordinator of High School Co-operation or a qualified representative, by direct communication with the college, through alumni club members, or through former scholarship holders. Most high school principals discuss college enrollment with their prospective college freshmen and are only too glad to bring this information to the attention of those concerned. The bulletin prepared by the Co-ordinator of High School Co-operation amplifies the Legislative Act which created the scholarships as follows:

1. One for a graduate in each high school and junior college on the approved list of our State Department of Public Instruction, provided there is a qualified candidate.

2. One hundred scholarships at large for qualified candidates of schools of such size as to warrant more than one.²¹

²⁰Michigan State College Entrance Scholarships.
Bulletin from Bureau of High School Co-Operation, Michigan State College.

²¹Loc. cit.

The

1. To
to obtain
not other

2. To
citizens
cation.

This

ical boundaries

possible for

Chairman of the

College. Such

March 1st.

For con

the applicant

1. Must
Michigan

2. Must
tically for

3. Must
of social
factory

4. Must
carry out

5. Must

Some ti

Committee stud

22. Loc.

23. Loc.

The purposes of the scholarships are two-fold:

1. To assist worthy and promising young people to obtain educational opportunities which they could not otherwise have.

2. To attract the state's potential leaders and citizens into the practice of continuing their education.²²

This new arrangement of awards eliminates geographical boundaries and political limitations and makes it possible for worthy candidates to apply directly to the Chairman of the Scholarship Committee of Michigan State College. Such application must be made on or before March 1st.

For consideration by the Faculty Scholarship Board, the applicant

1. Must have been accepted for admission to Michigan State College by the Registrar.

2. Must be among the more able students scholastically for the entire high school period.

3. Must have unquestioned integrity and a degree of social and emotional maturity necessary to satisfactory group living.

4. Must have demonstrated ability to study and carry out successful projects on one's own initiative.

5. Must have financial need.²³

Some time during the spring term the Scholarship Committee studies the applications and makes the awards.

²²Loc. cit.

²³Op. cit., p. 2.

A Certificate of Award²⁴ is sent to the high school principals who make the presentations to the winners in any manner they deem appropriate. A follow-up letter²⁵ is sent directly to the recipient of the award by the Chairman of the Scholarship Committee in which he congratulates the winner and stipulates the terms upon which the award will be renewed, namely a 1.6 honor-point average.²⁶

This new policy of one scholarship per high school was in effect for the first time in the fall of 1948. For

²⁴See Appendix, Exhibit A.

²⁵See Appendix, Exhibit B.

²⁶In connection with the grading system of Michigan State College a system of honor points has been adopted. The plan operated as follows during the time of this investigation: 3 points are allowed for each credit of "A" grade, 2 points for each credit of "B" grade, one point for each "C" and no points for work of "D" grade. Grades of "F" are given one negative point for each credit. Points equal to the number of credits are required for graduation. In 1950 the plan was stepped up one point.

To find a student's honor-point average, the total number of points is divided by the number of credits carried. Thus if a student earned all "A's" during his freshman year he would have a 3.0 (three point zero) honor-point average, while a student with a record of all "C's" would have a 1.0 average. If a freshman earned 12 credits of "A" grade, 18 credits of "B" grade, and 20 credits of "C" grade, he would have earned 50 credits for a total of 92 points and a grade-point average of 1.84.

$$\text{i.e.} \quad \frac{12 \times 3 + 18 \times 2 + 20 \times 1}{50} = \frac{36 + 36 + 20}{50} = \frac{92}{50} = 1.84$$

A scholarship student with this record would automatically have his scholarship renewed.

several reasons inherent in the inauguration of a new policy²⁷ there were not too many applications for these scholarships and only 180 awards were made to incoming freshmen that year. By the next year, however, students learned of the availability of the scholarships and there were several hundred applications.

There were 400 scholarships awarded to incoming freshmen in the fall of 1949. Of this number 27 young folks were unable to accept the award because of poor health, lack of finances, or general disinterest. Alternates had been named for some of these 27 and scholarship awards were made to 13 of these alternates after they had enrolled at Michigan State College and when it was definitely established that the recipients could not accept the award.

This meant that 386 freshmen were admitted to Michigan State College in September 1949 on tuition-free scholarships. Of this number, 33 withdrew from the institution sometime during the academic year leaving 353 in school for the entire year of three terms. Of the total, 353, who remained in college for the entire year, 158, or 44.8 per cent of them did not earn the 1.6 average and consequently lost their scholarships to Michigan State College. The

²⁷Some of these reasons might be: Time to put the administrative machinery into operation, inability to get the information before the graduating seniors, and general apathy of high school principals toward the program.

scholarships

years and wh

There

of this number

of inability

Scholarship C

This is an al

Table 1

Furnish the sp

SUMMARY OF AND REM

Enter of scho

Enter of scho

Enter of scho

Total number e
on scholarships

Enter of scho
sometime dur

Enter of scho
renewal of t

Enter of scho
scholarships

Percent of to

22 Five
the end of the
ship Committee
records in the

scholarships remain in effect for one, two, three, or four years and when once lost are not renewed.²⁸

There were originally 386 scholarships awarded, and of this number, the 158 who lost their scholarships because of inability to meet the academic standards set by the Scholarship Committee, constitute 41 per cent of the total. This is an alarming figure!

Table II summarizes very clearly the data which furnish the springboard for this investigation.

TABLE II

SUMMARY OF FRESHMAN SCHOLARSHIP AWARDS, CANCELLATIONS,
AND RENEWALS AT MICHIGAN STATE COLLEGE 1949-1950

| | |
|--|-----|
| Number of scholarships awarded | 400 |
| Number of scholarships not used | 27 |
| Number of scholarships granted later | 13 |
| Total number entering Michigan State College on scholarships | 386 |
| Number of scholarship students who withdrew sometime during the first academic year | 33 |
| Number of scholarship students who earned a renewal of their scholarships | 195 |
| Number of scholarship students who lost their scholarships at the end of the first year | 158 |
| Percent of total who lost their scholarships | 41 |

²⁸Five students whose scholarships were cancelled at the end of the freshman year had them renewed by the Scholarship Committee. The reasons for this were not given in the records in the students' folders.

Forty-one per cent of those who entered Michigan State College on scholarships lost their scholarships at the end of the first year. High school and college administrators would like to know the reasons for this high percentage of scholarship losses. An attempt to find out why so many of this group of scholars did not earn a renewal of their scholarships is the underlying purpose of this study.

CHAPTER II

PROCEDURE

During the academic year 1949-1950 there were 386 freshmen studying at Michigan State College under the terms of the entrance scholarship.¹ All but 17 of these were from high schools in Michigan.² The terms of the scholarship specify: first, that the regular tuition fees will be waived upon entrance and each term thereafter, if the student maintains a one-point six (1.6) academic average at the close of each academic year in June,³ and, second, that no student may participate in these scholarships for more than 12 quarters.⁴

It was pointed out on page 18 that the year 1949-1950 was the first in which the scholarships were used in any great numbers. At the close of this academic year it

¹From the Office of the Chairman of the Scholarship Committee, Michigan State College.

²These 17 were excellent high school athletes and were admitted to Michigan State College because of their athletic ability. Only 5 earned the renewal.

³This is explained in footnote 26, Chapter I.

⁴Michigan State College Catalog 1946-1948. (East Lansing, Michigan State College, 1946), p. 68.

was discovered that 41 per cent of those freshmen admitted on scholarship did not attain the 1.6 average necessary for automatic renewal. It was necessary for Mr. A. J. Clark, Chairman of the Scholarship Committee, to write letters to 158 freshmen informing them that their scholarships were no longer available.⁵

Most of these 386 students were admitted to Michigan State College because of financial need and because of high academic achievement in high school. The fact that 41 per cent of these students did not earn a C+ average (equivalent to the 1.6 average) during their first year in college alarmed college authorities. Those most concerned with the problem, in addition to Mr. Clark, were Mr. Robert Linton, Registrar of the College, and Dr. Guy H. Hill, Co-ordinator of High School Co-operation. They were interested in reasons for this high mortality.

This problem came to the attention of the writer one day in the summer of 1950 when he was conversing with Dr. Hill regarding the duties of his office. The latter explained that among other things it was necessary for him just that day to explain to a high school principal why his valedictorian had lost her scholarship at Michigan State College. In view of the high mortality among scholarship students he feared that he might be asked the same question

⁵See Appendix C.

again during the summer. Having only meager data on the problem he suggested that a study of the problem should be undertaken to determine why 41 per cent of the scholarship students lost their scholarships. It was then that this investigation was begun.

The writer has always been interested in high school and college relations, in student adjustments during their first year in college, and in academic records generally. He sought permission of the Registrar to use the records of the college and when this was granted the investigation was undertaken.

The underlying purpose behind this study is to determine, if possible, why 41 per cent of the scholarship students lost their scholarships. Is it the fault of the high school in failing to prepare its graduates for college work? Is it the fault of the college in failing to meet its obligations to the student? Is it the fault of the student himself in failing to meet the responsibilities his new environment requires? Are there other reasons why these students did not do well in college? And can anything be done to remedy this situation?

These questions serve as guide posts throughout this study and have consequently divided the study into three main phases:

First: the analysis of the academic records of the students during their high school days. This will include

courses taken in high school, average grades received, extra class activities participated in, and similar data.

Second: the analysis of the academic records of the students during their first year in college. This will include courses taken in college, grades received, psychological test scores, student activities, and similar data.

Third: the analysis of data from a questionnaire administered by the writer. This questionnaire will be discussed fully in Chapter VII.

The scholarship students are divided into three groups:

Group 1. The 33 students who did not remain in college a full year. These will be known as the "withdrawal group".

Group 2. The 158 who did not earn the renewal of the scholarship. These will be known as the "cancellation group".

Group 3. The 195 who earned the renewal of the scholarship. These will be known as the "renewal group".

The 33 students who did not complete the freshman year are studied as a group by themselves.

To make the study scientific it was deemed advisable to obtain some information about the regular or general college group and thus match records and achievement of the scholarship students with the records of the

regular group. This fourth group which will be representative of the regular freshmen will consist of 200 students and will be known as the "regular group".

The original list of scholarship students for 1949 which was prepared by the Secretary to the Chairman of the Scholarship Committee contained exactly 400 names. This list was used as the basis for drawing the 200 regular students at random and the drawing was accomplished in the following manner. The names of the even numbered students were used from the list of 400 and for each one of the scholarship group another was drawn from the entire freshman class personnel. Students were matched according to sex and size of home town. This was accomplished by the use of the Student Directory of Michigan State College.⁶ If the second student on the list was a boy whose name began with "A" and was from a Class A high school,⁷ the writer selected a freshman boy whose name also began with "A" and was from a school of approximately the same size. The alphabetical pairing had nothing to do with the statistical data but made it easier to make the pairings. Sometimes it was impossible to find the correct alphabetical pairing so this phase of the selection was not

⁶Student Directory 1949-1950. (East Lansing: Michigan State College, 1949).

⁷A school with more than 800 students in the upper four grades.

followed too closely. With this procedure a boy from Rockford was matched with a boy from Centerline, a boy from Marshall with one from Sturgis, a girl from Birmingham with one from Cadillac, and a boy from St. Johns with one from St. Louis. In this manner a group of 200 average students was drawn.

This regular group does not contain members of the Freshman Class who entered on scholarship. Since the scholarship students comprise only about 11 per cent of the entire Freshman Class, the 200 students selected at random from among all the non-scholarship freshmen closely approximates a random sample of the entire Freshman Class.⁸

The data for this study were obtained from four principal sources:

1. The application forms to the Registrar for admission to Michigan State College.
2. The application forms to the Scholarship Committee for a scholarship to Michigan State College.
3. The academic records on file in the Records room.
4. A questionnaire submitted by the writer.

Other items of information for the study were supplied by the Offices of Counselor-for-Men, Counselor-for-

⁸From information secured from the Office of the Registrar, Michigan State College, there were 3,708 new freshman registrations at Michigan State College in September 1949.

Women, and the Counseling Clinic. The Men's and Women's Counselors supplied information regarding reasons for withdrawing from college and times of withdrawal from college while the Counseling Clinic Office supplied the scores which Freshmen obtained on the American Council Psychological Examination.

There were 586 students whose records are analyzed in this investigation. The writer prepared a data sheet⁹ for each of these 586 students on which he recorded the following information from the application forms for admission:¹⁰

Name
Sex
Home town
Age
High school attended
High school course pursued
Credits earned
Average mark in each of the 7 subject groups¹¹
School in which the student enrolled at college
Agency by which the high school is accredited
Recommendation, whether clear or otherwise

The application forms for scholarship¹² were on file

⁹ See Appendix D.

¹⁰ See Appendix E.

¹¹ These are English, Language, Mathematics, Science, Social Science, Vocational, and Miscellaneous and are listed on page 8 of the Application for Admission to Michigan State College.

¹² See Appendix F.

in the office of the Chairman of the Scholarship Committee and were used to supplement the application forms for admission. These, naturally, were not available for the 200 regular freshmen group, for they were not scholarship students. From these application forms the writer obtained the following information:

- Occupation of the father
- Occupation of the mother
- Combined monthly income of the parents
- Rank in high school graduating class
- Extra-class activities pursued in high school¹³
- Principal's opinion regarding type of college work the prospective freshman will perform
- Influence which led to the choice of Michigan State College

This information was added to the data sheet.

A card, 5 inches by 8 inches, a facsimile of which is reproduced in Figure 1, shows what information was recorded by the clerks in the Records Office for each of the 586 students.

¹³From the student's autobiography on the application for scholarship.

| | | | |
|--|-------------|---|-------------|
| Student's name Home address | | Student's number College major | |
| Courses, credits, grades, and honor points for | | | |
| Fall 1949 | Winter 1950 | | Spring 1950 |
| Disciplinary action | | Total credits _____ Total honor points _____ | |

Figure 1

A FACSIMILE OF STUDENT RECORD CARD

The data from these three sources were then assembled by the writer on a large analysis pad with sheets 34 inches by 14 inches and gave the following information about each student:¹⁴

Name
 Home town
 Age
 Sex
 College status second year
 Marital status
 Father living
 Mother living
 Father's occupation
 Mother's occupation
 Combined monthly income of the parents
 Reasons for selecting Michigan State College

¹⁴See sample page in Appendix G.

School
Agency
Type
Kind
Rank
Number
Size
Associat
Princ
freshman
High
High
High
High
High
High
High
High
High
Place
Prospe
Number
Number
Grade-
Q-scor
quantitat
L-scor
linguisti
Total
college a
V-scor
recogniti
R-scor
speed
C-scor
comprehen
Total
reading a
Freshm
English
Freshm
Freshm
Freshm
Freshm
Freshm
Number
basic sub
comprehen

School in which he is enrolled
 Agency by which high school is accredited
 Type of course pursued in high school
 Kind of recommendation by his principal
 Rank in high school graduating class
 Number in high school graduating class
 Size of high school according to Athletic
 Association classification¹⁵
 Principal's opinion of type of work prospective
 freshman will perform.
 High school average in English
 High school average in Languages
 High School average in Mathematics
 High School average in Science
 High school average in Social Science
 High school average in Vocational subjects
 High school average in miscellaneous subjects
 High school grade-point average
 High school extra-class activities
 Place of residence as a college freshman
 Prospective college major
 Number of credits earned as a freshman
 Number of honor points earned as a freshman
 Grade-point average as a freshman
 Q-score on the Psychological Examination,
 quantitative thinking
 L-score on the Psychological Examination,
 linguistic thinking
 Total score on Psychological Examination, general
 college ability
 V-score on Psychological Examination, vocabulary
 recognition
 R-score on Psychological Examination, reading
 speed
 C-score on Psychological Examination, level of
 comprehension
 Total score on Psychological Examination, general
 reading ability
 Freshman marks in Basic Written and Spoken
 English
 Freshman marks in Basic Biological Science
 Freshman marks in Basic Physical Science
 Freshman marks in Basic Effective Living
 Freshman marks in Basic History of Civilization
 Freshman marks in Basic Literature and Fine Arts
 Number of Honor points gained or lost in the
 basic subjects due to the regulation governing
 comprehensive examinations

¹⁵See footnote 3 on page 75.

Courses in which freshmen received marks lower than "C"

The problem under investigation is vital to the welfare of the scholarship students and the high schools which it concerns and to Michigan State College where the problem actually exists. The purpose of the investigation is to determine why so many scholarship students fail to earn a renewal of their scholarships at the end of the freshman year with the aim of remedying the condition if possible.

The study will be concerned with the high school and first year college records of three groups of students: (1) 158 who lost their scholarships, (2) 195 who renewed their scholarships, and (3) 200 regular non-scholarship students. For additional factual data and some subjective evidence the writer administered a questionnaire to members of the above-mentioned groups. These data will be presented and analyzed in succeeding chapters.

The next chapter will review the literature which is pertinent to this investigation.

CHAPTER III

REVIEW OF RELATED LITERATURE

The United States is the land of opportunities. One of these is the free public school open to all. One way that has been suggested to make educational opportunity effectively equal to all is to establish a broad scholarship program that reaches down into the high school and extends through college and graduate work. Scholarships must be available for teen-agers when they begin to drop out of school for financial reasons. The number of scholarships should be large enough to care for about 5 per cent of the boys and girls of high school age and 2 or 3 per cent of the youth of college age who are poor but able students. Such a program will be costly enough to call for support from the federal government.¹

Scholarships from other sources of revenue are of course a familiar feature in the college scene. Scholarships are given for many reasons. Some are given as memorials, some as gratuities to the college, some in outright attempts to promote higher education, and some for miscellaneous reasons. New York University has

¹Lloyd W. Warner, Robert J. Havighurst, and Martin B. Loeb, Who Shall Be Educated? (New York: Harper and Brothers, 1944), p. 165.

established the "Gold Star Scholarships" for sons and daughters of graduates of the University who lost their lives in World War II. The scholarship would cover full tuition for any course leading to the baccalaureate degree and have a value of approximately \$1600.²

The Pepsi-Cola Company is conducting the largest, and, it hopes, the most effective scholarship program outside of government subsidy. It demonstrates how private industry can contribute significantly to the development of the country through the education of talented youth.³

The National Wholesale Druggists' Association awards two fellowships annually at Ohio State University to students to study costs and efficiency of wholesale distribution.⁴

The College of Agriculture at Ohio State University offers 20 scholarships each year paying \$300 annually and renewable throughout the student's undergraduate study.⁵

²New York University Establishes Gold-Star Scholarships," School and Society, 59:72, January 29, 1944.

³John M. Stalnaker, "Pepsi-Cola Scholarship Board Activities," School and Society, 66:396, November 22, 1947.

⁴"Research Opportunities at Ohio State University," School and Society, 63:222, March 30, 1946.

⁵Loc. cit.

Ryan says that the conditions of most scholarship awards are based on two philosophical principles: one, that the student's abilities should be developed for the benefit of himself and society and two, that if he is in need of financial help to that end, he should have it.⁶ The award is usually on a competitive basis and usually stipulates that there is evidence of need for financial assistance.

Ryan says further:

About 20 per cent of secondary school graduates go on to college and about half of these earn the baccalaureate degree. Less than 6 per cent of Americans are college graduates. Estimates vary as to the per cent who could graduate but never enter college. It is quite probable that another 10 per cent have the ability to earn the college diploma.⁷

In this complex society, the individual's education represents social values which outweigh his own welfare. This is another way of saying that often the individual's education is worth more to his fellows than to himself.

Ryan furthers his argument by saying:

Time was when a college student could earn his own way. In the thirties, one large mid-west university reported that a third of its students were getting along on \$500 a year or less, and earning all of it. Twenty years earlier, expenses were less than that. But with the advent of the forty-cent dollar the fear of earning one's way through

⁶H. H. Ryan, "Government Scholarships for High School Graduates," The Clearing House, 23:372, February, 1949.

⁷Loc. cit.

college has changed from a creditable achievement to something bordering on the miraculous.

It would seem, therefore, that any subsidy from national funds to college students should take account of these undeveloped resources. It should be selective, not only on the basis of the individual's intellectual promise, but also in terms of his need for financial assistance.⁸

The writer is not building a case for federal subsidization of education but is merely presenting a point of view. However, we must not lose sight of the fact that institutions of higher education award hundreds of scholarships each year. Michigan State College is privileged to award more than 650.⁹

The University of Michigan has a similar privilege, but differs in that it restricts its scholarship awards to graduates of accredited high schools. Harvard University gives very large scholarships to several freshmen. These scholarships are worth \$1,000 for the first year and \$1,200 for each of three succeeding years, if the student is unable to pay any of his expenses.¹⁰

The Harvard award stipulates that "the student must make honorable grades in his freshman year and that the

⁸Ryan, loc. cit.

⁹Information secured from the Office of the Coordinator of High School Co-operation, Michigan State College.

¹⁰"Harvard's National Scholarships Six Years After Their Inception," School and Society, 54:435, November 15, 1941.

granting of the scholarship thereafter is not by the number of A's he makes but by the originality and seriousness he brings to bear on his work."¹¹ The regulations state further that "the Committee insists on intellectual distinction coupled with a correspondingly high development of character and personality."¹² The acquisition of knowledge and the development of character should be the primary objectives of the college student, and when these two objectives are realized to the fullest, Harvard University rewards the student with a scholarship grant.

Harvard University launched out on an enlarged scholarship program in 1946. Stipends as high as \$1,200 are offered "based on global needs to Americans with adequate knowledge of foreign countries."¹³ The program is definitely of an experimental nature and it is hoped that it will prove inviting to veterans of the last World War who have had service overseas and have become interested in diplomatic service as a career. The scholarship would be continued throughout the college course and into graduate work if high honor records are maintained.

¹¹Loc. cit.

¹²Loc. cit.

¹³"A New Program and an Expansion of the National Scholarships at Harvard," School and Society, 63:77-78, February 2, 1946.

The University of Chicago has enlarged its scholarship program in order to reach brilliant high school students before they graduate from high school. Special examinations would be given to students in the 10th grade and above if they ranked in the upper 10 per cent of their class. Boys and girls who pass this test would then be able to enter the University of Chicago at the age of 14 or 15 and receive the bachelor's degree at 18 or 19.¹⁴

A group of seven women's colleges in the East have formed a conference for the distinct purpose of providing ways and means to encourage students from the West to matriculate at their colleges.¹⁵ One method of encouragement is the awarding of scholarships on a competitive basis. All students may compete and if the winners maintain high records in college, the college will expect to renew the scholarship until graduation. The award pays a minimum of \$100 plus a variable amount, based on the student's need, sufficient to cover the cost of tuition and board and room.

¹⁴"Scholarships Available for 'New-Plan' Students, University of Chicago," School and Society, 58:405, November 20, 1943.

¹⁵"Seven Eastern Women's Colleges Will Offer National Scholarships," School and Society, 58:453, December 11, 1943.

The Board of Regents of the State of New York has approved a new comprehensive examination to be given to high school applicants for the 750 University scholarships awarded each year.¹⁶

From the foregoing information it appears that most scholarships are awarded on the basis of intellectual ability and the amounts of the scholarships are determined by financial need. The scholarships awarded by Michigan State College are given on the basis of financial need and academic achievement in high school.

Phearman made a comparison of high school graduates who go to college with those who do not go to college and found that the economic factor is probably one of the most important factors preventing talented youth from continuing their education. He states:

One out of three youth of those who ranked in the upper quarter scholastically are denied a college education because their families can not afford it. If the group who indicated a desire to earn their own money is added to the ones that can not afford to go to college, nearly one out of two do not attend college because of financial reasons.¹⁷

¹⁶"University-Scholarship Examinations," School and Society, 57:151, February 6, 1943.

¹⁷Leo T. Phearman, "Comparison of High School Graduates Who Go to College With Those Who do Not Go to College," (Unpublished Doctor's dissertation, The University of Iowa, Iowa City, 1948), p. 70.

Barber¹⁸ interviewed 110 high school graduates to determine why they did not go to college. He found that a lack of finances was the most important single factor for not going to college. Thirty-four per cent fall into this classification. Other reasons given were: lack of academic interests, preference for work experience, and lack of serious purpose.

Inasmuch as the lack of finances is a major reason why able high school graduates do not attend college, the Michigan State College program of awarding scholarships to able students of financial need appears justifiable. But the need also is present among good risks who cannot compete in scholarship.

What are the characteristics of these students who are admitted to higher institutions on scholarship and what is the quality of their academic achievement? These two questions are the guide posts for this investigation.

Studies dealing with the college achievement of scholarship students are extremely limited. One such

¹⁸Leroy Edward Barber, "Why Some Able High School Graduates do Not Go to College," (Unpublished Doctor's dissertation, The University of Pittsburgh, Pittsburgh, 1950), p. 63.

study was made in 1932 by Krugman¹⁹ who analyzed the distributions of grades for all students and for scholarship students in Washington Square College over a two year period from September, 1928 to June, 1930. The study sought to answer two questions: first, How does the distribution of grades for the college as a unit compare with the normal distribution? and second, How does the distribution of grades by the various departments compare with the distribution by the college and with the normal distribution?

Krugman found that the distribution of grades for scholarship students was considerably higher than both the normal and college distributions in percentage of A's, somewhat higher in percentage of B's, and considerably lower in percentage of C's, D's, and F's.

The following table presents the distribution by percentages of marks earned by the entire college population and the scholarship students as compared with the marks of a normal distribution.

¹⁹ Abraham Krugman, "A Comparison of Grades of Scholarship Students and All Students in the Washington Square College of New York University," (Unpublished Master's thesis, New York University, New York, 1932), p. 39.

TABLE III²⁰DISTRIBUTION BY PERCENTAGES OF GRADES EARNED BY STUDENTS
AT WASHINGTON SQUARE COLLEGE

| Group | Percentage of total marks | | | | | |
|-------------|---------------------------|----|----|----|---|-------|
| | A | B | C | D | F | Total |
| All college | 10 | 28 | 40 | 16 | 6 | 100 |
| Normal | 7 | 24 | 38 | 24 | 7 | 100 |
| Scholarship | 55 | 34 | 10 | 1 | 0 | 100 |

These data definitely show the academic superiority of the scholarship students over the entire college population for 55 per cent of all their marks were A's. Eighty-nine per cent of the marks earned by the scholarship people were either A's or B's and 99 per cent of all their marks were C's or better.

Krugman adds further that of the 101 scholarship students whose records constituted the basis for the study, 45 were admitted to Phi Beta Kappa.²¹

The findings in regard to the second question were as follows:

²⁰Krugman, op. cit., p. 39.

²¹Loc. cit.

For all students, most of the departments varied widely from the normal distribution. Similar results were found for the distribution of scholarship grades. The highest marking departments as to percentage of A's and B's for all students are Sociology, Fine Arts, Music, Italian, Classics, and German. The scholarship students ranked highest in the German, Mathematics, Fine Arts, and Spanish departments.²²

Krugman also reports a study made at Hunter College in New York to learn whether the aims of New York State in granting scholarships for college study have been realized. Two groups of scholarship students were selected, 507 of Hunter College (1926-1929) and 1,126 State scholars (1913-1921), and compared with an equally large sample of non-scholarship students entering Hunter College the same year. The conclusion reached was that "The scholarship of State scholars at Hunter College amply justifies the State in awarding the scholarships, and that the scholarship students are markedly superior to the regular students in their studies".²³

An evaluation of scholarship and character of college students was made by Stephens at the University of Chicago in 1941 to determine what factors contribute most to students' success. He concluded:

²²Op. cit., p. 40.

²³Op. cit., p. 5.

The truth seems to be that there are so many different factors, any one of which, or any grouping of which, may determine the result, that it is impossible to be dogmatic and insist that it is this more than that. That scholastic aptitude is important is recognized. There seem to be limitations to the possible intellectual achievements of a ten percentile mind. But there are so many other factors that might work in compensating fashion that it is not enough for individual guidance to know just that score.²⁴

Stephens ventured to make certain suggestions concerning the less tangible factors that influence college achievement.

Important among the positive factors are: definite vocational goal, sense of personal responsibility that often is associated with earning a considerable part of one's college expenses, good health, a Christian conviction or philosophy of life that tends to integrate the personality, and experience in self-direction.

On the negative side would be listed: home backgrounds in which young people are controlled by prohibition rather than by teaching them discrimination, emotional instability, absence of vocational goal, too great a burden of self-support, a course of study that does not challenge because it does not meet the student's interests, and moral weakness.²⁵

It is Stephens' final suggestion that the educational responsibility of colleges extends to the concern for the entire personality.²⁶

²⁴Theodore P. Stephens, "An Evaluation of Scholarship and Character of College Students," (Unpublished Doctor's dissertation, University of Chicago, Chicago, 1941), p. 166.

²⁵Loc. cit.

²⁶Stephens, op. cit., p. 161.

Sheldon made an investigation of the personality and emotional characteristics of forty students in the Academic Methods Program of Syracuse University who were having scholastic difficulties. The Academic Methods Program is the name given to a program developed at Syracuse which is concerned with the improvement of the reading habits and study skills of underclassmen. These students voluntarily sought more help than was to be obtained in the classroom situation. The case study method was applied, and when the diagnosis for the 40 students was completed, only 16 remained in the University to benefit from subsequent therapy. The other 24 left school.²⁷

Sheldon drew the following conclusions:

1. That the forty students ranged in intelligence from normal to very superior.
2. That these forty individuals were severely disturbed emotionally.
3. That these students had been handicapped in their scholastic careers since their elementary days even though they had adequate intelligence and wide interests.
4. That these students were significantly less able to read when compared to normal college freshmen.
5. That these students revealed no visual anomalies.²⁸

²⁷William Denley Sheldon, "A Study of College Students with Scholastic Difficulties," (Unpublished Doctor's dissertation, University of Syracuse, Syracuse, 1948), p. 22.

²⁸Sheldon, op. cit., p. 328.

A number of studies have been undertaken to determine reliable means of predicting success in college. Goforth's²⁹ study was undertaken to find out what relationship exists between the grades of freshmen entering Alabama Polytechnic Institute during the year 1937-1938 and their previous high school records. Such factors as the size of class and type of the school from which they came, sex, and the ability of the pupil as shown on the standardized tests were considered in relation to freshmen grades. Many factors entered in: intellectual ability, social adjustment, habits, methods of work, and special interests. Goforth found an average correlation of .42 between subjects taken in high school and the same subjects taken in college and a correlation coefficient of .51 between psychological test scores and average college grades. He concluded further that there is a definite tendency for graduates of small high schools to earn lower than average grades and a definite tendency for graduates of the large high schools to earn better than average grades in college.

In a study to determine the relation of size and location of high schools to achievement of their

²⁹Malcolm Emerson Goforth, "A Comparison of Freshman Grades with High School Grades and Psychological Scores of the Class Entering Alabama Polytechnic Institute in 1937," (Unpublished Master's thesis, The Alabama Polytechnic Institute, Auburn, 1939), p. 2.

students, Stuart found that "the larger high schools not only offer a much more varied and flexible curriculum to meet the varying needs of pupils entering high school at the present time but also that the larger schools do more effective work in the field of instruction."³⁰ His data were taken from the responses of 10,000 applicants to schools of nursing throughout the United States during the year 1943-1944.

Ely conducted a similar study and feels that although his findings are not conclusive they are sufficiently so to offer a strong argument in favor of the large high schools.³¹

Jorgensen reported that his investigation showed that "rural pupils are retarded on the average about one-half of a school year compared with the urban group."³²

Eicher studied the success of North Carolina high school students in four North Carolina colleges with

³⁰W. Clinton Stuart, "The Relation of the Size and Location of High Schools to the Achievement of Their Students," (Unpublished Doctor's dissertation, New York University, New York, 1946), p. 6.

³¹Wayne H. Ely, "The Scholastic Success of Students from Small High Schools versus Students from Large High Schools," (Unpublished Master's thesis, Indiana State Teachers' College, Terre Haute, 1929), p. 40.

³²A. W. Jorgensen, "A Comparison of Rural and Urban Children," Wisconsin Journal of Education, 5:241, January, 1939.

special emphasis on the size of the high schools from which the students came. Generally speaking, students from small schools tended to make high marks in high school and low marks in college, and the contrary is true for students from large high schools.³³

A report by the faculty of Leland Stanford Junior University stated that students from large high schools made better showing on grade point averages than did those entering from small high schools.³⁴

The findings from these studies clearly indicate that students from large high schools receive higher marks in college than the students from small high schools.

Innumerable studies have been conducted to determine the most reliable bases for predicting success in college. Many investigators find the high school record to be the best single measure for predicting college grades. Eicher found high correlations between freshman college marks and high school marks for each of the four colleges and six of the larger high schools in North Carolina. The average for all four colleges was .641

³³Franklin C. Eicher, "The Success of North Carolina High School Students in Four North Carolina Colleges," (Unpublished Doctor's dissertation, Duke University, Durham, 1942), p. 156.

³⁴Report of Sub-Committee of Committee on Student Ability, (Stanford, California: Stanford University Press, 1923), p. 37.

which is highly significant.³⁵ In the total averages for all high schools he found a simple correlation coefficient of .55 between freshman college averages and high school averages.³⁶ He concluded that average high school marks or high school rank in most cases provides a better criterion than do mental tests.³⁷

Seyler studied the value of rank in high school graduating class for predicting success in college.³⁸ He found that a high school percentile rank of 58 was necessary to predict a probable average of "C" for a student entering the College of Liberal Arts and Sciences at the University of Illinois. This statistical prediction was found to be wrong in approximately one-fourth of the cases; and 16 per cent of the students having a percentile rank below the 15th percentile made at least a "C" average in college. He adds further:

However it is concluded that it is possible to predict that the lowest quarter of a high school graduating class will fail scholastically in the

³⁵Eicher, op. cit., p. 149.

³⁶Ibid., p. 6.

³⁷Ibid., p. 14.

³⁸E. C. Seyler, "The Value of Rank in High School Graduating Class for Predicting Freshman Scholarship," American Association of Collegiate Registrars' Journal, 15:9, October, 1939.

first year of college, although there will be some individuals within this group who will make satisfactory scholastic records.³⁹

Potthof found that the correlation between average high school grades in academic subjects and the first two years in college was .620 while there was a correlation of only .435 between these same college grades and scores on entrance tests.⁴⁰

Some investigators believe that college grades themselves are the best index of future college grades. Stright found correlations between first semester college grades and four years' averages as high as .81.⁴¹

Stewart discovered that the first-year grade point averages do have validity for predicting successful work in the junior and senior years in the major fields in the College of Arts at Syracuse University. The writer found a correlation of .71 between first year History and similar courses taken in the upper two years, a correlation of .70 between freshman mathematics and subsequent courses in mathematics, and correlations in the neighborhood of

³⁹Seyler, op. cit., p. 9.

⁴⁰Edward Potthof, "A Statistical and Analytical Study of the Selective Admission of College Students," (Unpublished Doctor's dissertation, University of Chicago, Chicago, 1928), p. 126.

⁴¹Isaac L. Stright, "The Prediction of Success in Baldwin-Wallace College," (Unpublished Doctor's dissertation, Western Reserve University, Cleveland, 1946), p. 16.

.66 for most all other subject fields.⁴²

Most of these studies indicate that a student's high school record and his rank in high school graduating class are the best criteria for predicting academic success in college.

One of the most valuable studies relating to prediction of success in college was carried out by Froehlich at the University of Wisconsin in 1941. He concluded that the American Council Psychological Examination, which requires approximately one hour for administration, is on a par with the average of high school marks covering a period of three and one-half to four years, as a basis for prediction of success at the University of Wisconsin; but added that percentile rank in high school graduating class is a better basis for such prediction.⁴³

This study verified the conclusion that rank in graduating class is as good a measure of university

⁴²Maude A. Stewart, "First Year Grade Point Average as a Measure for Predicting Academic Attainment in the Junior-Senior Years in the Major Fields of the College of Liberal Arts of Syracuse University," (Unpublished Doctor's dissertation, University of Syracuse, Syracuse, 1947), p. 157.

⁴³Gustav J. Froehlich, "The Validity of the Wisconsin Achievement Test as an Instrument for Predicting Success at the University of Wisconsin," (Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1941), p. 35.

success as any of the other available measures. On the other hand, the study offers another measure, the Wisconsin Achievement Test score which is just as good as rank in class and has the added advantage of being uniformly and objectively obtainable for all incoming freshmen at the expense of only one 101 minute period.⁴⁴

In conclusion Froehlich states:

The best possible combination of predictive indices is composed of the total score on the Wisconsin Achievement Test, the rank in secondary school graduating class, and the total score on the 1938 edition of the American Council on Education Psychological Examination. This combination yields a multiple R of .7164 with the first semester grade point average.⁴⁵

Most of the investigations concerning the scholarship of freshman college students have dealt with the relationship between housing and academic success to determine which type of housing, if any, contributes to the best scholarship. Practically none have dealt with the scholarship of 'scholarship' students.

The most extensive study was made at the University of Minnesota in 1940 by Van Alstine.⁴⁶ He attempted to determine the effect of residence on scholarship and

⁴⁴Ibid., pp. 152-153.

⁴⁵Ibid., p. 153.

⁴⁶Frank L. Van Alstine, "The Relation Between the Housing of Students and Their Scholarship at the University of Minnesota," (Unpublished Doctor's dissertation, University of Minnesota, Minneapolis, 1941), p. 73.

to test whether or not the presumed effect was real. Four types of housing were studied; namely, home, private residence, dormitory, and fraternity. He studied the relation between the housing of students, including upperclassmen, and their scholarship in the Colleges of Medicine, Law, Engineering, Business, Education, and Pharmacy. He concluded that there was no significant relation between housing of students and their scholarship in any of the Colleges except the College of Pharmacy. This advantage was in favor of those freshmen who lived in a private residence as compared with those freshmen who lived in any other type of residence. However, in the College of Pharmacy the records of only 95 students were studied and so the evidence seems neither conclusive nor noteworthy.

Walker found a positive correlation between housing and student success at the University of Chicago. Students living in dormitories ranked first; those living at home, second; and those living in rooming houses and fraternities, third.⁴⁷

Butts conducted a similar study at the University of Wisconsin and found that students living in dormitories and chapter houses ranked .098 grade points higher

⁴⁷ Ernest T. Walker, "The Relation of the Housing and Success of Students in a University," (Unpublished Doctor's dissertation, University of Chicago, Chicago, 1935), p. 74.

than those living in rooming houses or at home.⁴⁸

Peterson conducted a three year study at Davis College of the University of California. He concluded that the average student will do better scholastically in a dormitory than if he lives in a fraternity or a rooming house. In desirability he listed the places of residence in this order: dormitory, co-operative house, rooming house, at home, and fraternity.⁴⁹

Grote investigated the housing conditions at Western Illinois State Teachers' College between 1926 and 1929. She concludes:

The important factor in housing is not the location-- in the house, in the dormitory, or in the home-- but it is the living condition that prevails there..... Those who live in their own houses in the college town rank first, and the dormitory group ranks second in academic achievement and that these two types of housing are favorably and increasingly affecting academic achievement from year to year.⁵⁰

Moulton, in a study to determine the distribution of low grades among women working for board and room in

⁴⁸Porter Butts, "Some Implications of Housing," Journal of Higher Education, 8:31-32, January and February, 1937.

⁴⁹Basil H. Peterson, "The Scholarship of Students Housed in Various Living Quarters," School and Society, 57:221-224, February 20, 1943.

⁵⁰Caroline Grote, "Housing and Living Conditions of Women Students," No. 507, Bureau of Publications, Teachers' College, Columbia University, New York, 1932, p. 96.

private homes, women doing light housekeeping, and those living in dormitories, found that the academic standings of students living in dormitories are higher than those of students living under other conditions. Her study indicated that the rank of housing situations studied as regards scholarship was, first, dormitories; second, light housekeeping; and third, working for room and board in private homes.⁵¹

Both of the last two mentioned studies were carried out more than 30 years ago and their findings are somewhat questionable in light of our present day philosophy of education.

Hansen made a similar study at the University of Chicago with an emphasis on the type of room in its relation to scholarship. Of the entire group of 1164 students, 647, or 55.6 per cent made grades above the predicted grades determined for them at entrance to college. Of this group, 59.4 per cent lived in single rooms and 40.6 per cent lived in double rooms. A comparison of the difference between the actual and the predicted grades of the students in the three ability groups were in each case in favor of the groups of students living in single

⁵¹ Ella Lee Moulton, "Dormitory Values for Students," School and Society, 29:363, March 16, 1929.

rooms.⁵²

A survey of the literature related to the quality of academic achievement in college reveals that most of the investigations skirt the problem relating to the academic achievement of those students who are admitted to college on scholarship awards. The majority of the theses related to this problem are grouped around the following headings: 1. Prediction of success in college. 2. Number and size of scholarships available. 3. Preparation of high school graduates for college. 4. Performance in college. 5. Relation of housing to scholarship.

The problem of the present investigation is to determine the characteristics of those students who are admitted to Michigan State College on scholarship, to determine the quality of their academic achievement, and to determine why 41 per cent of those admitted fail to earn a renewal of their scholarships at the end of the first year. An examination of the literature on the general topic of "scholarships" failed to uncover any investigations of this specific nature. That is perhaps the primary reason why the writer undertook this study. He believes that the investigation will be very beneficial to guidance officials in both secondary schools and

⁵² Minna Hansen, "Some Factors in the Housing of Students Related to Success in College," (Unpublished Doctor's dissertation, University of Chicago, Chicago, 1942), p. 80.

colleges in order that they might promote better adjustment of college freshmen.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE RECORDS OF THE 33 WITHDRAWAL STUDENTS

The preceding chapters have served to introduce the subject of this investigation. They presented the background of the problem, the procedure for the investigation, and a review of the pertinent literature. This chapter is the first one devoted to an analysis of the data of the investigation beginning first with the information available on the 33 withdrawal students. These students withdrew from college at different times throughout their first year in residence. Some did not complete their first term and hence earned no credits. Since their records are so incomplete they are treated in this chapter as a group by themselves. Some of the information will be repeated in tabular form in the next chapter.

These 33 are divided rather evenly as regards sex for there are 17 males and 16 females and all of them are unmarried. Of these 33, only 7, or 21 per cent, re-entered Michigan State College at a later date to make further use of the scholarship.

The occupations of the fathers are quite varied with 4 being farmers, 3 teachers, 5 machinists, 7 businessmen or salesmen, and one each of the following:

janitor, truck driver, miner, sheriff, secretary, supervisor, and railroad man.

All of the mothers are housekeepers except 6 who gave the following as their chief occupation: nurse, secretary, typist, laborer, teacher, and clerical worker.

The combined average monthly income of the parents is \$280 per month according to the figures supplied by the students in their applications for scholarships.

The reasons for selecting Michigan State College were varied and are summarized as follows in Table IV.

TABLE IV
REASONS GIVEN BY THE 33 WITHDRAWAL STUDENTS
FOR SELECTING MICHIGAN STATE COLLEGE

| Reason | Frequency |
|---|-----------|
| The courses offered at M S C | 10 |
| The scholarship award itself | 7 |
| Influence of friends (students or alumni) . . | 7 |
| Visits to the campus (band, 4-H, Boys State) | 3 |
| Reputation of the college | 1 |
| Desirable location | 1 |
| No reason given | 4 |

The 33 students came from the following types of high schools:

5 from Class A schools like Kalamazoo, Mt. Clemens
 12 from Class B schools like Allegan, Three Rivers
 11 from Class C schools like Brighton, Paw Paw
 5 from Class D schools like Colon, Brooklyn¹

TABLE V
 TYPE OF SCHOOL FROM WHICH THE 33 WITHDRAWAL
 STUDENTS WERE GRADUATED

| | A | B | C | D | Total |
|----------|------|------|------|------|-------|
| Number | 5 | 12 | 11 | 5 | 33 |
| Per cent | 15.1 | 36.4 | 33.3 | 15.1 | 99.9 |

Thirty-two of these schools represented by withdrawal students were accredited by the University of Michigan, while one was not accredited at all. Twenty-one of these schools were also accredited by the North Central Association of Colleges and Secondary Schools.² Thirty of these students pursued a college preparatory course in high school, one followed the college agreement plan,³ and two took the non-college curriculum in high

¹See footnote 3, page 75 for an explanation of the Athletic Association classification.

²This organization is the highest accrediting agency in Michigan.

³This is explained on page 7.

school.

The records of the latter three students are very interesting. The student who did not follow a subject-matter pattern in high school, whom we shall call Student A, was a girl from a Class D high school. She was valedictorian of her class of 21 graduates with practically an all "A" record. She scored in the first decile⁴ in both the total general college ability section and the total general reading ability section on the American Council Psychological Examination administered by the college at the time of matriculation. She left college sometime during the fall term of 1949 because of "lack of interest" in college.⁵

The two who followed the non-college curriculum we shall call Student B and Student C. Student B, a girl, was the valedictorian of a Class C school with 36 graduates. She had practically an all "A" record in high school and scored in the 5th decile in both the total general reading ability and the total general college ability on the Psychological Examination. She withdrew sometime during the fall term of 1949 because of financial reasons.⁶

⁴First decile represents the lowest 10 per cent of the group, 10th decile represents the highest 10 per cent.

⁵Information supplied by the Office of the Counselor for Women, Michigan State College.

⁶Loc. cit.

Her high school principal stated that she would do "excellent" work in college, but she did not stay long enough to earn any credits. Student C was a boy who ranked 42nd in a class of 146 graduates in a Class B school. He had a 1.8⁷ average in high school, scored in the first decile in total general college ability, and in the second decile in general reading ability. He left school at the end of the fall term having earned only 8.5 credits for a total of negative 1.5 honor points.⁸ The reason for his withdrawal is not known, though it was assumed to be scholastic difficulties.⁹

When a student fails to return to the campus the next term for further study the reason is seldom known. When he withdraws during a term he usually consults with his counselor and then the reason for the withdrawal is given. Since 19 withdrew during the time that classes were in session the reasons for their withdrawal are known. The Counselor for Men and the Counselor for Women have stated that 5 withdrawals were due to financial reasons, 4 were due to the fact that the student lacked interest in college, 3 due to illness, 2 because of employment opportunities,

⁷This means a C+ or a B- average.

⁸See footnote 26, Chapter I.

⁹Student C earned one B, two C's, one D, and two F's during his first term. He earned 8.5 credits for -1.5 honor points for an honor-point average of -.1.

and one each because of wrong courses, improper adjustment, and desire to transfer to another college. Also, one girl left college to get married and one girl left college to play baseball.

In the general college ability test the withdrawals averaged in the 5.485 decile which is in the middle of the fifth decile, while in the general reading ability test they averaged in the 5.121 decile or just past the fifth decile grouping. Their scores are compared with the scores of the other scholarship students in Table XXVI on page 110.

Thirty-one of the 33 students were recommended for college by their high school principals, the other two applications for admission were left unmarked in this category. Three principals said that their high school graduates would probably do excellent work in college, 19 stated their graduates would do satisfactory work in college, and 11 said that their students would do average work at Michigan State College.

Eight of the 33 students remained on campus only one full term while 6 remained 2 full terms. The entire group had a grade-point average of 2.26 in high school,¹⁰ but since their college records are so irregular, their

¹⁰ An "A" was assigned a value of 3 points, a "B" was given 2 points, and a "C" was assigned one point. No value at all was given for grades of "D" or lower.

college averages are of little value. These students earned an average of 15.3 credits per person at Michigan State College with an honor-point average of 1.17. This compares favorably with the all-freshmen average of 1.19.¹¹

At the time of enrollment the student is asked to state a preference for his major field of emphasis. It is interesting to note that 7 of the 33, or 21 per cent of the total, did not have any particular goal, they were listed with "no-preference" majors. Consequently they were listed as being enrolled in the Basic College only. Their "no-preference" category might be one of the main reasons why they did not remain in college. The other 26 were enrolled in the following Schools: 3 in the School of Agriculture, 4 in the School of Business and Public Service, 3 in the School of Engineering, 3 in the School of Home Economics, 10 in the School of Science and Arts, 3 in the School of Veterinary Medicine, and 7 in the Basic College. Four of the 33 were majoring in English, 3 in Home Economics, 3 in Pre-Veterinary Medicine, and 2 each in Foreign Language, Political Science, and Business Administration.

At the time of withdrawal, only 2 of the 33

¹¹Information secured from the Office of the Registrar, Michigan State College.

students in this group had earned the 1.6 average required to insure a renewal of the scholarship. One of these, whom we shall call Student E, was a girl who scored in the highest decile in every section of the Psychological Examination. It was necessary for her to withdraw because of financial reasons. At the time of withdrawal she had earned 40 credits for a grade-point average of 1.8. The other student, Student F, was a girl, too, who scored in the 7th and 9th deciles on the all college ability and general reading ability sections of the Psychological Examination. She had to withdraw from college because of illness at home. At the time of her withdrawal she had earned 36 credits for a 1.8 average. Both of these students returned to Michigan State College in the fall of 1950 to take further advantage of their scholarship grants and thus continue their college education.

This information regarding the withdrawal group does not reveal why scholarship students at Michigan State College do not maintain the 1.6 average. It is summarized here just to complete the study of the group of those 400 students who were initially awarded tuition-free scholarships to study at Michigan State College. Among the study of the records of these 33 students the following facts seem to summarize their status:

1. Eight per cent of those awarded scholarships withdrew before finishing their freshman year.
2. Seventy per cent of the withdrawal students came from Class B and Class C high schools in Michigan.
3. Seventy-two per cent of them selected Michigan State College either because of the courses offered here, the scholarship award, or the recommendation of friends.
4. 31 of the 33 students were recommended by their high school principals.
5. 19 of the 33 students withdrew from college during the time classes were in session. The reasons most frequently given for withdrawal were illness, 15 per cent, financial difficulties, 25 per cent, and lack of interest in college, 20 per cent. The latter should be investigated as a problem for further study.
6. 21 per cent of the 33 enrolled without any preference for a college major.
7. 7 of the 33 returned to the campus in the fall of 1950 to make further use of the annual scholarship award.
8. 4 of the 7 returnees withdrew during their first year because of illness, 1 left school to travel, and 2 left without giving any reason.
9. 5 of the 7 returnees had declared a college major upon matriculation.

CHAPTER V
PRESENTATION AND ANALYSIS OF THE HIGH SCHOOL
RECORDS OF THE 553 STUDENTS

The preceding chapter dealt with some of the characteristics of the 33 scholarship students who withdrew from college during their first year. This chapter will be devoted to an analysis of the high school records and the first year college averages of the 158 "cancellation" students, the 195 "renewal" students, and the 200 "regular" students. The underlying question guiding the writer in the analysis of these data will be, "Why did 41 per cent of the scholarship students admitted to Michigan State College in the fall of 1949 fail to earn a renewal of the award?" The writer will analyze the characteristics of the cancellation group in an effort to determine in what ways and to what extent they are different from those students who earned the 1.6 average and, consequently, the renewal. The first problem analyzed relates to the size of the high school from which the students were graduated. Does the size of the high school from which the students come have any bearing on the student's success in college?

Williams made a study of the academic success of 100 freshmen at the University of Michigan and concluded

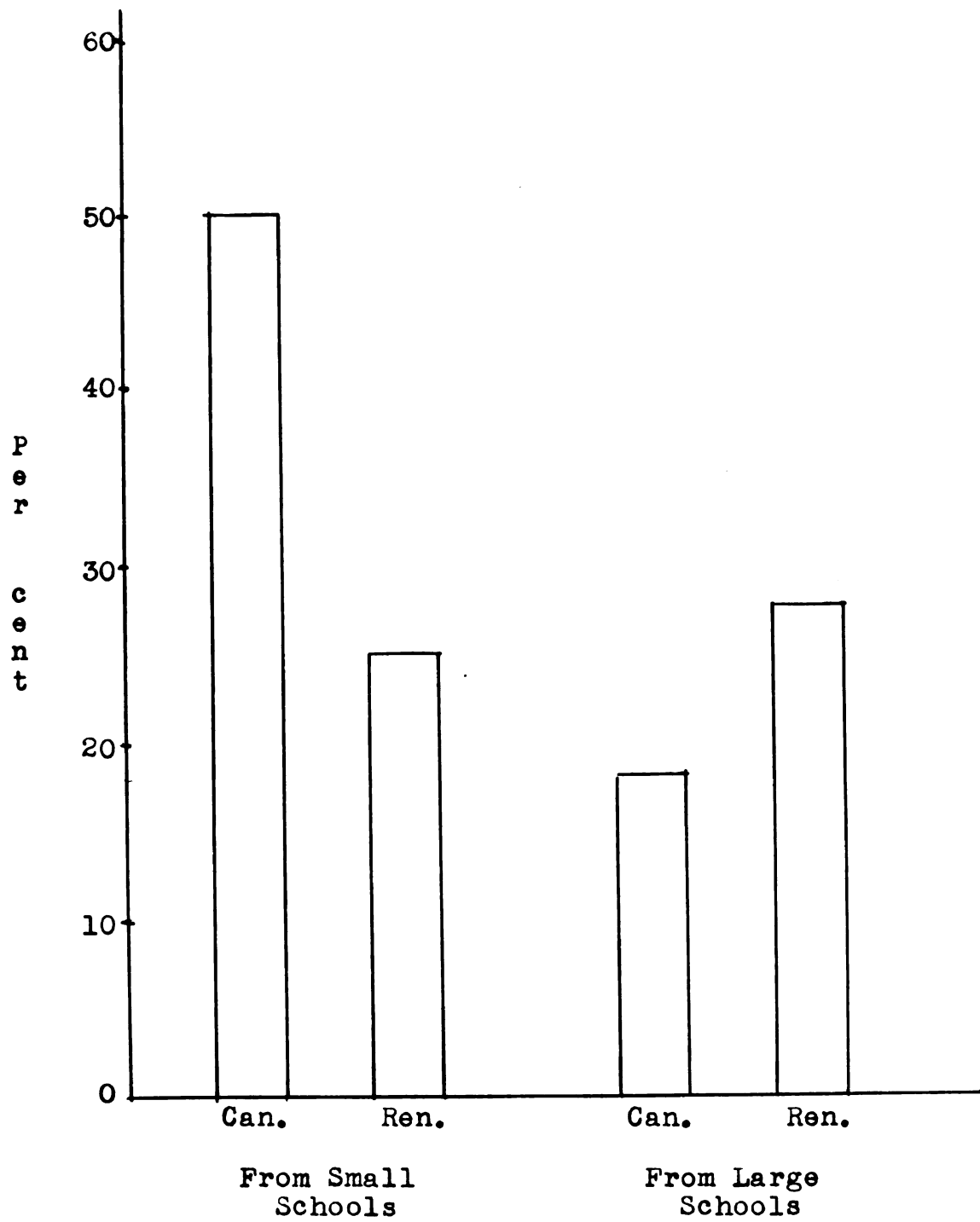


FIGURE 2

DISTRIBUTION OF CANCELLATION AND RENEWAL
STUDENTS FROM LARGE AND SMALL HIGH SCHOOLS

that the size of the high school from which a student graduates is not a determinant of his success in the University.¹ His study was based on only 100 cases. This writer has found evidence which shows that the size of the high school is definitely related to the success of scholarship students.

It was found that 50 per cent, or just exactly half of those who lost their scholarships, were from high schools having 60 or fewer graduates in June, 1949. About 18 per cent of these 158 came from large high schools having more than 200 members in the senior class. In the renewal group 24.6 per cent of the 195 students were from small high schools with fewer than 60 members in the graduating class while 30 per cent of them were from large high schools with more than 200 graduates.

It will be recalled that the members of the regular group who were drawn at random were selected by matching sizes of schools as nearly as possible. It develops that this distribution very closely approximates the distribution of the renewal group. The distribution showing the size of high schools from which the students came is given in Table VI.

¹Robert L. Williams, "Letter to Schools", (Ann Arbor: University of Michigan, June, 1950), p. 2.

TABLE VI
SIZE OF HIGH SCHOOLS FROM WHICH THE STUDENTS CAME

| Size of graduating class June 1949 | Cancellation group | | Renewal group | | Regular group | |
|---|-----------------------|----------|------------------|----------|------------------|----------|
| | Number | Per cent | Number | Per cent | Number | Per Cent |
| 1-20 | 9 | 5.7 | 7 | 3.6 | 7 | 3.5 |
| 21-40 | 37 | 23.4 | 25 | 12.8 | 29 | 14.5 |
| 41-60 | 33 | 20.9 | 16 | 8.2 | 32 | 16.0 |
| 61-80 | 15 | 9.5 | 25 | 12.8 | 15 | 7.5 |
| 81-100 | 12 | 7.6 | 17 | 8.7 | 15 | 7.5 |
| 101-120 | 9 | 5.7 | 16 | 8.2 | 12 | 6.0 |
| 121-140 | 4 | 2.5 | 7 | 3.6 | 9 | 4.5 |
| 141-160 | 2 | 1.3 | 7 | 3.6 | 9 | 4.5 |
| 161-180 | 3 | 1.9 | 7 | 3.6 | 6 | 3.0 |
| 181-200 | 6 | 3.8 | 10 | 5.1 | 6 | 3.0 |
| over 200* | 28 | 17.7 | 58 | 29.7 | 60 | 30.0 |
| Totals | 158 | | 195 | | 200 | |
| Average size of class | 107.15 | | 178.53 | | 167.22 | |
| Standard deviation | 98.9 | | 148.5 | | 141.5 | |

*The 28 large schools represented by the cancellation students averaged 301 graduates, the 58 schools represented by the renewal students averaged 397 graduates, and the 60 schools represented by the renewal students averaged 374 high school graduates.

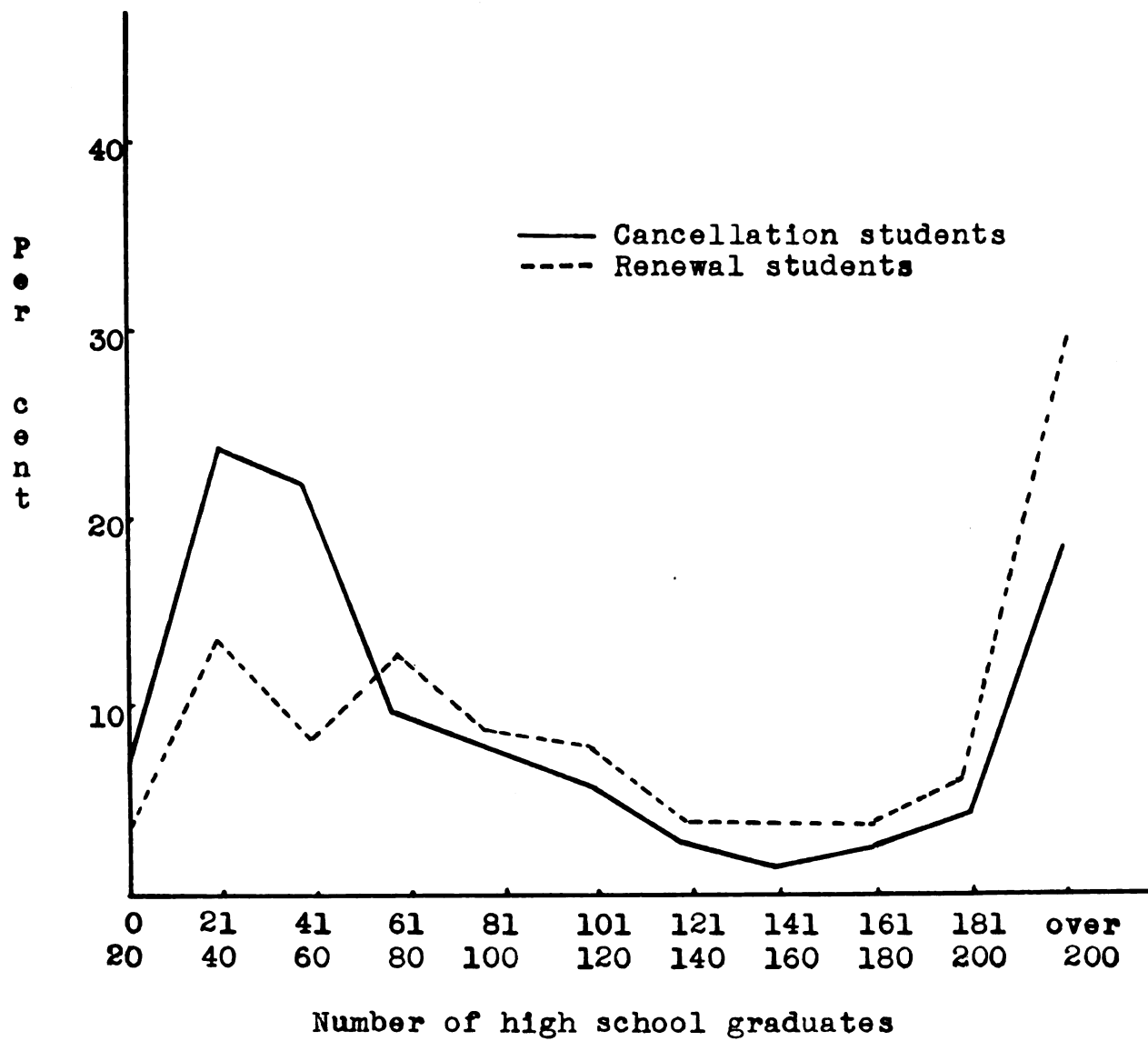


FIGURE 3

DISTRIBUTION OF CANCELLATION AND RENEWAL STUDENTS
FROM ALL HIGH SCHOOLS

Table VII summarizes the essential data from Table VI and extends it to include the standard deviation of the means.

TABLE VII
SUMMARY OF DATA REGARDING SIZE OF GRADUATING CLASS

| | Formula ² | Cancellation | Renewal | Regular |
|---------------------------------|---|-----------------------------|------------------------------|------------------------------|
| Mean | $\frac{\sum x}{N}$ | $\bar{x}_1 = 107.15$ | $\bar{x}_2 = 178.53$ | $\bar{x}_3 = 167.22$ |
| Standard deviation | $\sqrt{\frac{\sum (x - \bar{x})^2}{N}}$ | $\sigma_1 = 98.90$ | $\sigma_2 = 148.5$ | $\sigma_3 = 141.5$ |
| Standard deviation of the means | $\frac{\sigma_{x_i}}{\sqrt{N}}$ | $\sigma_{\bar{x}_1} = 7.91$ | $\sigma_{\bar{x}_2} = 10.61$ | $\sigma_{\bar{x}_3} = 10.04$ |

The formula for the standard error of the difference between the means is

$$\sigma_{(\bar{x}_1 - \bar{x}_2)} = \sqrt{\sigma_{\bar{x}_1}^2 + \sigma_{\bar{x}_2}^2}$$

and the standard errors must now be computed.

$$\sigma_{(\bar{x}_1 - \bar{x}_2)} = 13.2$$

$$\sigma_{(\bar{x}_1 - \bar{x}_3)} = 12.7$$

$$\sigma_{(\bar{x}_2 - \bar{x}_3)} = 14.9$$

²From William D. Baten, "Elementary Mathematical Statistics", (New York: John Wiley and Sons, Inc., 1938).

One of the most important applications of these statistical tools is testing for significance between the means. This is done by working out the critical ratio, t , which is the ratio of the difference between the means to the standard error of this difference:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sigma(\bar{x}_1 - \bar{x}_2)} .$$

We set up a null hypothesis that there is no difference between the true means of the samples we are comparing; that is, we temporarily assume that they come from the same population and, therefore, have the same mean. Since we are trying to test the significance of a difference between the two sample means, we shall see if there is any evidence that this hypothesis is probably false and that the samples probably come from different populations.

$$(a) \quad t_{(\bar{x}_1 - \bar{x}_2)} = \frac{107.15 - 178.53}{13.2} = -5.41$$

$$(b) \quad t_{(\bar{x}_1 - \bar{x}_3)} = \frac{107.15 - 167.22}{12.7} = -4.73$$

$$(c) \quad t_{(\bar{x}_2 - \bar{x}_3)} = \frac{178.53 - 167.22}{14.9} = .76$$

An interpretation of the t values reveals that for 300 and 400 degrees of freedom* we may expect on the average a value of t as large as 2.59, or larger, only one

* D. F. = $n_1 + n_2 - 2$. The degrees of freedom for these analyses would be 351 and 393 respectively.

time in 100. Therefore the probability of getting $t = 5.41$ or $t = 4.73$ is certainly much smaller than .01. We can thus reject the hypothesis that the class size means are equal and conclude that there is a significant difference between the class size means of the cancellation and the renewal groups, and the cancellation and the regular groups. The samples do not appear to come from the same parent population.

When comparing the class size means of the renewal and the regular groups we obtain a t value of .76. We can accept the hypothesis and conclude that the means of these two groups are the same, that they represent the same parent population.

This statistical analysis verifies the conclusion drawn earlier that the students of the cancellation group represent a size of high school different from the size of high school represented by the renewal group. In other words, the size of high school is definitely related to the success of scholarship students at Michigan State College.

A second classification of size of schools is the classification set up by the Michigan High School Athletic Association for purposes of greater equality among schools

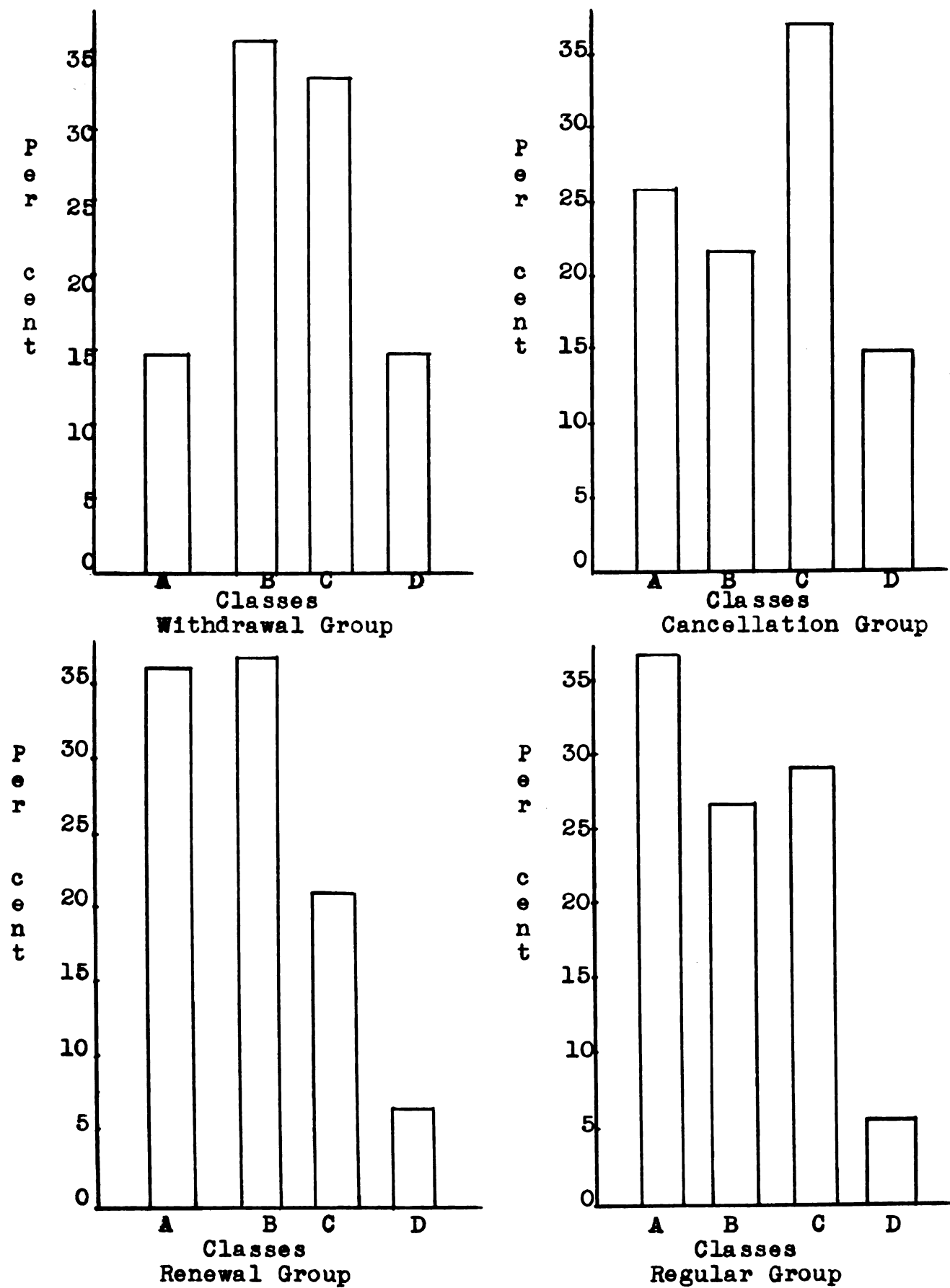


FIGURE 4

DISTRIBUTION OF ALL STUDENTS ACCORDING TO SIZE OF SCHOOL
FROM WHICH THEY CAME

in athletic competition.³

This classification verifies the previous conclusion that the majority of cancellation students came from small high schools. Fifty-one per cent of them came from Class C and Class D schools while 27 per cent were from Class A high schools. In the renewal group we find 27 per cent from Class C and Class D schools with 36 per cent from Class A schools. It appears that the students from the smaller schools are greater risks scholastically than those from the larger high schools.

³There are 5 classifications as follows:
Class A- 800 or more students in the upper 4 grades
Class B- 325-799 students in the upper 4 grades
Class C- 150-324 students in the upper 4 grades
Class D- Less than 150 students in the upper 4 grades
Class E- Less than 75 students in the upper 4 grades in the Upper Peninsula only. This information is taken from Michigan High School Athletic Association Bulletin, November (supplement) 1950, Lansing: Department of Public Instruction, p. 182.

TABLE VIII
SIZE OF HIGH SCHOOL FROM WHICH ALL THE STUDENTS CAME

| Group | Number | Class | | | | |
|--------------|--------|-------|-----|-----|----|---|
| | | A | B | C | D | E |
| Withdrawal | 33 | 5 | 12 | 11 | 5 | 0 |
| Cancellation | 158 | 43 | 34 | 58 | 23 | 0 |
| Renewal | 195 | 71 | 72 | 40 | 12 | 0 |
| Regular | 200 | 74 | 55 | 59 | 11 | 1 |
| Totals | 586 | 193 | 173 | 168 | 52 | 1 |

Let us next apply the χ^2 (chi-square) test to determine whether the differences between the theoretical and the observed frequencies can reasonably be attributed to chance variations in sampling. Is there close agreement between the observed frequencies and the expected frequencies by means of the χ^2 test? In other words, are the students in the various groups distributed in the same proportion as the totals are distributed? From the formula $\chi^2 = \frac{(f_o - f_t)^2}{f_t}$ where f_o is the observed

frequencies and f_t the theoretical frequencies, we obtain a χ^2 of 35.52. In this particular problem we throw the single frequency in cell E into cell D making a 4 X 4 table with 9 degrees of freedom. If we look up the χ^2 we find that P is less than .01. This means that a value of

χ^2 as large as 35.53 would occur not more than once in 100 samples if our hypothesis were true. Therefore we reject the hypothesis that the students are distributed in the same proportion as the totals are distributed and conclude once more that there is a difference in the size of the high schools from which the students came.

TABLE IX
DISTRIBUTION OF SCHOLARSHIP STUDENTS FROM
CLASS A AND CLASS B HIGH SCHOOLS

| Group | Number | Per cent of total |
|--------------|--------|-------------------|
| Withdrawal | 17 | 7.2 |
| Cancellation | 77 | 32.5 |
| Renewal | 143 | 60.3 |
| Total | 237 | 100.0 |

Out of 237 students from Class A and Class B schools who entered Michigan State on scholarship, 60.3 per cent of them renewed their scholarships at the end of the first year.

TABLE X
DISTRIBUTION OF SCHOLARSHIP STUDENTS FROM
CLASS C AND CLASS D HIGH SCHOOLS

| Group | Number | Per cent of total |
|--------------|--------|-------------------|
| Withdrawal | 16 | 10.7 |
| Cancellation | 81 | 54.4 |
| Renewal | 52 | 34.9 |
| Total | 149 | 100.0 |

Out of 149 students from Class C and Class D high schools who entered Michigan State on scholarship, 54.4 per cent of them failed to earn a renewal of the scholarship.

TABLE XI
PERCENTAGE DISTRIBUTION OF SCHOLARSHIP STUDENTS
BY SIZE OF SCHOOL

| Group | Classes A and B | Classes C and D |
|--------------|------------------------|-------------------|
| Withdrawal | 17 out of 33 = 51.5% | 16 of 33 = 48.5% |
| Cancellation | 77 out of 158 = 48.7% | 81 of 158 = 51.3% |
| Renewal | 143 out of 195 = 73.4% | 52 of 195 = 26.6% |

Out of 195 students who renewed their scholarships, 73.4 per cent of them were from Class A or Class B high schools.

Let us calculate the standard error of the difference between the cancellation and the renewal percentages to ascertain if they are significantly different. This interpretation is carried out in the same way that a standard error of a sample mean is interpreted. The

formula is $\sigma_{(p_1 - p_2)} = \sqrt{\frac{p_1 q_1}{N_1} + \frac{p_2 q_2}{N_2}}$ where $p + q = 1$.

$$\sigma_{(p_1 - p_2)} = \sqrt{\frac{(.487)(.513)}{158} + \frac{(.734)(.266)}{195}} = .050$$

We calculate the critical value of t in the same manner as before and obtain

$$t = \frac{p_1 - p_2}{\sigma_{(p_1 - p_2)}} = \frac{.487 - .734}{.050} =$$

-4.94.

We have set up the null hypothesis that the percentages are not significantly different but in view of the large value for t we must reject the hypothesis and conclude that the percentages are significantly different.

All the evidence of this investigation points to the fact that the size of the high schools from which the scholarship students were graduated has a definite relation to the type of success pattern they were able to establish in college. The scholarship students from the Class A and Class B high schools achieve greater academic success in college than do the students from Class C and Class D high schools.

Goforth reached the same conclusion that students from large city schools tended to receive higher grades in college than other freshmen. He states:

There is a definite tendency for graduates of small high schools to earn lower than average grades and a definite tendency for the graduates of the large high schools to earn better than average grades in larger proportion than graduates of smaller high schools.⁴

The second factor to be analyzed in this investigation is the distribution of the scholarship students by sex. Of the 386 scholarship students who were on campus for the entire year the distribution is fairly equal for there were 171 men and 182 women. Half of the men, 85 of them, and 40 per cent of the women, 73 of them, failed to earn a renewal of their scholarship awards. Though Scott found that girls who plan to go to college are markedly superior in scholastic accomplishment to boys who plan to go to college⁵ and Barker concluded "that girls as a whole are superior in scholastic ability to the boys in all types

⁴Goforth, op. cit., p. 5.

⁵Don Averill Scott, "The Scholastic Ability of Iowa High School Graduates in Relation to Their Intended Educational, Vocational, and Professional Careers and to the Institutions of Higher Education They Plan to Attend," Unpublished Doctor's dissertation, (University of Iowa, Iowa City, 1935), p. 12.

of institutions of higher learning except teacher's colleges⁶, the evidence of this investigation indicates that there are many unseen factors which makes the analysis between the abilities of the sexes difficult. A chi-square test carried out on the data of this investigation to determine if the distribution of scholarship students by sex corresponded with the expected distributions, produces a chi-square value of 2.93 which for one degree of freedom gives a probability of something between .05 and .10 and hence leads us to conclude that scholarship is not entirely independent of sex.

TABLE XII

DISTRIBUTION OF THE 386 SCHOLARSHIP STUDENTS BY SEX

| Group | Male | Female |
|--------------|------|--------|
| Withdrawal | 17 | 16 |
| Cancellation | 85 | 73 |
| Renewal | 86 | 109 |
| Regular | 95 | 105 |

⁶ Richard W. Barker, "The Educational and Vocational Careers of High School Graduates Immediately Following Graduation in Relation to Their Scholastic Abilities," Unpublished Master's thesis, (University of Iowa, Iowa City, 1937), p. 51.

Another factor to investigate in this study is average age of the several groups. This study concerns freshmen who entered Michigan State College in the fall of 1949 and since this date is 4 years following the close of World War II there are no veterans among this group of scholarship students. The average age of the cancellation students is 19.5 years and the average age of the renewal students is 18.9 years. The average age of the random regular group is 19.6 years. When the t test is carried out to determine if the means of the two groups are the same we obtain $t = 10$. which clearly indicates that there is significant difference between the mean ages of the cancellation and the renewal group.

Those students who lost their scholarships were, on the average, .6 of a year, or more than 7 months older than those who renewed their scholarships. The conclusion to be drawn from these figures is that as a student gets older his scholastic achievement decreases. Goforth cites the same conclusion in a study of students from about 120 institutions of higher learning which included 2,000 freshmen. He found a negative correlation between marks and age showing that as the student increases in age the lower will be his achievement score or mark.⁷

⁷ Goforth, op. cit., p. 5.

Not a single member of the scholarship group was over 21 years of age and not one was married at the time of matriculation. Of those drawn at random for the regular group, 21 students were past 21 years of age and 9 out of the 200 were married.

TABLE XIII
DISTRIBUTION OF THE SCHOLARSHIP STUDENTS BY AGE

| Group | Age | | | | | | |
|---------------|-----|----|-----|----|----|----|---------|
| | 17 | 18 | 19 | 20 | 21 | 22 | Over 22 |
| Withdrawals | 0 | 0 | 27 | 6 | 0 | 0 | 0 |
| Cancellations | 0 | 16 | 127 | 14 | 1 | 0 | 0 |
| Renewals | 2 | 25 | 153 | 14 | 1 | 0 | 0 |
| Regulars | 0 | 23 | 121 | 24 | 10 | 8 | 13 |

To what extent does instability in the student's family life contribute to his lack of success in college? An analysis of this situation revealed that 13 students of the cancellation group of 158 had one parent deceased and 7 students of 158 had parents divorced. Among the renewal group of 195, 12 students had one parent deceased and only 2 had parents divorced. Among the regular group 26 students had one parent deceased and only 2 had parents divorced. From the cancellation group, 13 per cent of the students came from homes where one parent is deceased or the parents divorced. From the renewal group only 7 per cent of the students came from homes where one parent is

deceased or the parents are divorced. These data, though meager, indicate that the cancellation students may be handicapped by being children in broken homes.

TABLE XIV
NUMBER OF STUDENTS HAVING PARENTS DECEASED OR DIVORCED

| Group | Number | Father Living | Father deceased | Mother living | Mother deceased | Parents divorced |
|--------------|--------|---------------|-----------------|---------------|-----------------|------------------|
| Withdrawal | 33 | 30 | 3 | 32 | 1 | 6 |
| Cancellation | 158 | 149 | 9 | 154 | 4 | 7 |
| Renewal | 195 | 186 | 9 | 192 | 3 | 2 |
| Regular | 200 | 185 | 15 | 189 | 11 | 2 |

The occupations of the students' fathers were tabulated to determine if there is any relation between success in college and occupations of the fathers among the scholarship group. Were there any differences in the types of jobs held by fathers of the various groups? Among the cancellation group we find the following listed as the occupations of the fathers: 30 farmers, 14 laborers, 14 teachers, 13 business-men, 8 engineers, 7 foremen, 7 inspectors, 6 mechanics, 5 book-keepers, 4 clerks, 4 real estate men, and several classifications listed fewer than four times.

Among the renewal group we find that the students have listed the occupations of their fathers as follows: 25 farmers, 20 teachers, 17 business-men, 12 engineers,

9 laborers, 8 manufacturers, 7 managers, 8 salesmen, 6 toolmakers, 6 carpenters, 6 clerks, 5 real estate men, 5 cashiers, 4 mechanics, and several classifications listed fewer than four times.

Among the regular group we find the fathers' occupations as follows: 30 business-men, 21 farmers, 14 engineers, 12 salesmen, 10 doctors, 10 executives, 9 machinists, 6 contractors, 5 real estate men, 5 office managers, 4 insurance men, and several classifications listed fewer than four times.

The writer has used the same grouping of occupations as was used by Phearman in his doctoral dissertation.⁸

⁸ Phearman, op. cit., pp. 70-76.

TABLE XV
FATHERS' OCCUPATIONS AS LISTED BY STUDENTS

| Occupation | Group | | | |
|-------------------------------------|-----------------|-------------------|---------|---------|
| | With- drawal | Cancel- lation | Renewal | Regular |
| 1. Professional workers | 4 | 17 | 40 | 45 |
| 2. Farmers and farm managers | 4 | 33 | 27 | 22 |
| 3. Proprietors, managers, officials | 4 | 14 | 35 | 63 |
| 4. Clerks, salesmen | 5 | 13 | 24 | 18 |
| 5. Craftsmen and foremen | 1 | 36 | 35 | 10 |
| 6. Operators | 0 | 3 | 0 | 10 |
| 7. Service workers | 5 | 7 | 9 | 4 |
| 8. Laborers | 1 | 20 | 14 | 6 |
| 9. Not listed | 9 | 15 | 11 | 22 |

If there is any advantage which one group has over the other it appears among the renewal group. Forty of the 195 students had fathers who were professional men such as doctors, teachers, lawyers, etc. Among the cancellation group there were only 17 whose fathers were professional men. At the other end of the scale we find that a higher per cent of the cancellation group (13%) than of the renewal group (7%) came from homes where the father is an unskilled laborer. The problem is sociological in nature and

requires further study but it appears that the occupation of the parent plays an important role in the scholarship student's academic success.

This problem is amplified in Chapter VII in the discussion of the formal education of the parents of the scholarship students.

There are many families today where both parents are employed either to raise the standard of living, or because of economic need. Does the fact that both parents are away from home working have any effect upon the quality of work done by their children when they get to college? The figures show that of those who lost their scholarships 42 were from homes where the mother was employed. This number constitutes about 27 per cent. There were 34 students from the renewal group whose mothers were employed. This constitutes only 17 per cent.

TABLE XVI

DISTRIBUTION SHOWING NUMBER AND PER CENT OF PARENTS EMPLOYED

| Group | Only one parent working | | Both parents working | |
|--------------|-------------------------|----------|----------------------|----------|
| | Number | Per cent | Number | Per cent |
| Withdrawal | 27 | 81.8 | 6 | 18.2 |
| Cancellation | 116 | 73.4 | 42 | 26.6 |
| Renewal | 161 | 82.6 | 34 | 17.4 |
| Regular | 167 | 83.5 | 33 | 16.5 |
| Total | 471 | 80.4 | 115 | 19.6 |

58 % renewed their
scholarships

42 % lost their
scholarships

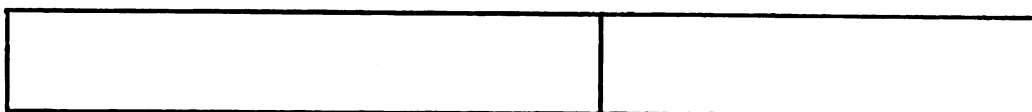


FIGURE 5

DISTRIBUTION OF STUDENTS FROM 277 HOMES WHERE ONLY
THE FATHER IS EMPLOYED

45 % renewed their
scholarships

55 % lost their
scholarships



FIGURE 6

DISTRIBUTION OF STUDENTS FROM 76 HOMES WHERE BOTH
PARENTS ARE EMPLOYED

There were 277 scholarship students whose fathers only were employed. Of these, 161, or 58 per cent, renewed their scholarships. There were 76 students admitted from homes where both parents were employed. Of these, 34, or 45 per cent, renewed their scholarships. The scholarship student whose mother and father were both employed seemed to have less chance of renewing his scholarship than the student whose mother listed her occupation as "housewife". These facts are shown graphically in Figures 5 and 6.

The more successful scholarship students at Michigan State College came from homes of high economic status. This is based on the fact that the average combined monthly income of the parents of the renewal groups is higher than the monthly income of the parents of the cancellation group. A t test carried out to determine if there is a significant difference between the means of the 2 groups gives $t = 1.6$ which reveals no significant difference. These income figures are supplied by the students themselves on the applications for scholarship and might not be too reliable.

TABLE XVII
AVERAGE COMBINED MONTHLY INCOME OF THE PARENTS

| Group | \bar{x} | σ_x | $\sigma_{\bar{x}}$ |
|--------------|-----------|------------|--------------------|
| Withdrawal | \$280.03 | \$112.70 | \$19.77 |
| Cancellation | 307.35 | 102.50 | 8.13 |
| Renewal | 325.32 | 108.50 | 7.75 |

The purpose of the scholarship is to make it possible for able students of limited financial means to secure a college education. Yet an examination of the previous table reveals that the scholarships are renewed for those whose parents have the highest average monthly income. The most needy were denied the continuation of the benefit because they fell below the 1.6 average. As one student put it, "The 'C' student needs the education just as much as the 'A' student does."

Ryan has proved that there is a high correlation between the high school graduate's probability of going to college and the economic status of his family.⁹ And Phearman gave as one of his conclusions that, "The economic factor is probably one of the most important factors preventing talented youth from continuing their education."¹⁰

⁹Ryan, op. cit., p. 372.

¹⁰Phearman, op. cit., p. 76.

Inasmuch as the scholarships are granted to able students of financial need and inasmuch as more of the low income group lose their scholarships it appears that the standards set by the Scholarship Committee defeat the very purpose for which the scholarships were established.

The first part of this chapter has been devoted to a discussion of some of the vital characteristics of the students involved. The part which follows will present an analysis of their high school background and their first year college record to determine to what extent the scholarship student is prepared for college work.

The academic background of the students whose records are studied here is presented first by an analysis of the types of high schools from which they came. By types of schools is meant whether they are accredited by the North Central Association, the University of Michigan, or approved by the Michigan State Department of Public Instruction, or neither or all. An accredited high school is one whose course offerings, physical facilities, and instructional staff meet certain standards set by the State Department of Public Instruction and the University of Michigan is the official accrediting agency in the State.¹¹ A high school which is accredited by the North Central

¹¹Information secured from the Registrar, Michigan State College.

Association is supposedly a superior high school.¹²

There are 244 high schools in Michigan accredited by the North Central Association and 611 high schools accredited by both the North Central Association and the University of Michigan.¹³

All of the high schools but 10 represented in this study were accredited by the University of Michigan. Out of 586 students represented in this study, 397, or 68 per cent, came from high schools accredited by the North Central Association.

From the group of 158 who lost their scholarships, 85, or 54 per cent, were from North Central accredited schools. From the renewal group of 195 students, 152 or 78 per cent were from North Central schools. These data clearly show that scholarship students from North Central accredited schools have greater chances of survival in college. The students who retain their scholarships evidently come from high schools which more adequately prepare their graduates for college work. These schools,

¹²"The criteria for accreditation of a secondary school today recognize the fact that, in addition to meeting certain standards such as qualification of personnel, adequacy of building, equipment, library, and length of school year, the school should meet the needs not only of those continuing their formal education, but also those who will drop out or end their formal education upon graduation." From the Annual Report of the Bureau of School Services", University of Michigan, Ann Arbor, 1950, p. 11.

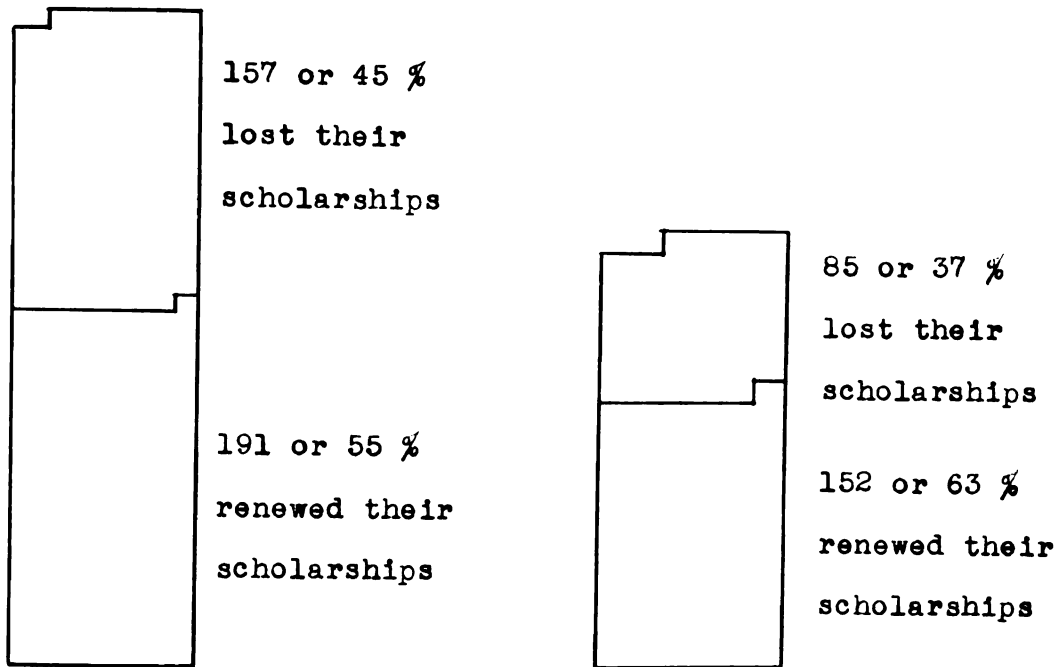
¹³Loc. cit., p. 18.



generally speaking, are those accredited by the North Central Association of Secondary Schools and Colleges.

Of the 386 students represented in this study of scholarship students, 380 of them came from schools which were accredited by the University of Michigan. From this number, 191 schools were represented by a student who did not renew his scholarship. This constitutes exactly 50 per cent of the schools accredited by the University of Michigan represented by at least one student who did not earn a renewal of his scholarship award. This is shown graphically in Figure 7.





348 students from
schools accredited
by the University
of Michigan

237 students from
schools accredited
also by the North
Central Association

FIGURE 7

CHART SHOWING PERCENTAGES OF ACCREDITED SCHOOLS REPRESENTED
BY THE RENEWAL AND CANCELLATION STUDENTS

TABLE XVIII

THE ACCREDITED HIGH SCHOOLS REPRESENTED IN THIS STUDY

| Group | U of M | N C A | Neither | Total |
|--------------|--------|-------|---------|-------|
| Withdrawal | 32 | 21 | 1 | 33 |
| Cancellation | 157 | 85 | 1 | 158 |
| Renewal | 191 | 152 | 4 | 195 |
| Regular | 196 | 139 | 4 | 200 |

Two hundred fifty-eight students came from schools which were accredited by the North Central Association. From this number, 85 schools were represented by a student who did not renew his scholarship. This constitutes 33 per cent. It appears that students from the North Central Association schools have a greater chance of renewing their scholarships than do students coming from schools not accredited by this agency. Eicher reached a similar conclusion in his study relative to the college success of students from North Carolina high schools. The highest accrediting agency in North Carolina is the Southern Association and Eicher states that, "The college achievement of students from Southern Association Schools is in general superior to that of students from non-member schools."¹⁴

¹⁴Eicher, op. cit., p. 122.

Colleges in the past specified certain courses or sequences of courses under the heading of "college entrance requirements" and high schools offered but two high school curriculums; the college preparatory and the non-academic. At present it is possible for students to graduate from high school with a minimum number of required subjects and a choice of several curriculums. Since 1946 it has been possible for graduates of accredited high schools in Michigan to enter college under the college agreement plan. This plan is explained on page 7 and disregards the pattern of subjects pursued. Some high schools will permit students to graduate with vocational or technical curriculums which are distinctly non-academic and do not necessarily prepare students for college.

The students whose high school records are reviewed in this study are classified as having pursued one of three courses: (1) the college preparatory course, (2) the college agreement plan, or (3) the non-college course. The student's application for admission to college provides a space for the high school principal to indicate the type of curriculum pursued. In many instances the principal neglected to fill in this part of the application. Practically every student pursued the college preparatory course in high school. Only 5 of the total entered Michigan State College under the College Agreement Plan while 6 of the scholarship students entered college having taken the

non-college course in high school. Four of the latter 6 failed to renew their scholarships at the end of the freshman year.

TABLE XIX
COURSE PURSUED IN HIGH SCHOOL

| Group | College Preparatory | College Agreement | Non-college Course | No Comment |
|--------------|---------------------|-------------------|--------------------|------------|
| Withdrawal | 30 | 1 | 2 | 0 |
| Cancellation | 140 | 2 | 4 | 12 |
| Renewal | 167 | 2 | 2 | 24 |
| Regular | 169 | 1 | 10 | 20 |

The high school principal is also asked to recommend his graduates for college. Occasionally we find an inconsistency between the grade needed for recommendation and the actual recommendation for some principals do not follow their own codes. Every high school sets up a standard of achievement necessary to receive the recommendation of the administrator for college work. The principal is asked to recommend the graduate in one of the following categories: (1) clear, (2) with examinations, or (3) not to recommend him at all.

An examination of Table XX reveals the fact that principals were very reluctant to mark the "not-recommended" column so made no comment at all. If we assume that failure to mark either of the 3 categories was equivalent to not-

recommending the graduate at all, then 38 of the students admitted on scholarship were not recommended for college by their high school principals.

TABLE XX
RECOMMENDATIONS GIVEN BY HIGH SCHOOL PRINCIPALS

| Group | Clear | With examination | Not recommended | No comment |
|--------------|-------|---------------------|--------------------|---------------|
| Withdrawal | 31 | 0 | 0 | 2 |
| Cancellation | 141 | 1 | 0 | 16 |
| Renewal | 175 | 0 | 0 | 20 |
| Regular | 147 | 25 | 4 | 19 |

Table XXI reveals that about one-fourth of the schools require a "B" average in high school and two-thirds require a "C" average in order to be recommended to college. The writer discovered that many principals disregard the "grade required for recommendation to college" when they mark the recommendation category.

TABLE XXI
GRADES REQUIRED FOR RECOMMENDATION TO COLLEGE

| Group | B grade | | C grade | | D grade | | No comment | |
|--------------|---------|------|---------|------|---------|-----|------------|-----|
| | n* | % | n | % | n | % | n | % |
| Cancellation | 51 | 32.3 | 95 | 60.1 | 5 | 3.2 | 7 | 4.4 |
| Renewal | 54 | 27.7 | 132 | 67.7 | 3 | 1.5 | 6 | 3.1 |
| Regular | 51 | 25.5 | 144 | 72.0 | 4 | 2.0 | 1 | .5 |

*n represents number

There is a place on the application-for-admission blank which asks the administrator to state his opinion of the quality of work he thinks the student will perform in college. Table XXII summarizes these opinions.

TABLE XXII
AN INDICATION OF HOW WELL SCHOLARSHIP
STUDENTS WILL PERFORM IN COLLEGE

| Group | Excellent | Satisfactory | Average | Inferior | Failure |
|--------------|-----------|--------------|---------|----------|---------|
| Withdrawal | 3 | 19 | 11 | 0 | 0 |
| Cancellation | 10 | 97 | 33 | 1 | 0 |
| Renewal | 30 | 127 | 17 | 0 | 0 |
| Regular | 7 | 56 | 103 | 10 | 0 |

About one-fourth of those scholarship students who were expected to do excellent work in college failed to renew their scholarships and 40 per cent of all scholarship

students who were expected to do satisfactory work in college on the basis of their principal's recommendation failed to renew their scholarships. The students who renewed their scholarships at the end of their freshman year had higher prediction ratings by their principals than did the students of the cancellation group. The principal's recommendation and the principal's prediction of quality of work are not true indices of college success. An examination of the table which follows reveals a few of the inconsistencies between the principal's recommendation, his expectations, and the actual performance of the student.



TABLE XXIII

HIGH SCHOOL RECORD, PRINCIPAL'S ACTION, AND FRESHMAN AVERAGES OF A FEW SCHOLARSHIP STUDENTS

| Student Number | Rank in class | Size of school | Expected to do | Grade for recom'dtn | Principal's action | High School Gd-Pnt Avg | College Gd-Pnt Avg |
|----------------|-----------------|----------------|------------------------------|---------------------|------------------------|------------------------|--------------------|
| 33 51 | 4/45 9/32 | C D | Excellent Average | C B | Rec'md Not recm'd | 2.8 1.7 | 1.3 .7 |
| 60 72 | 7/38 3/100 | C A | Excellent Excellent | B C | Rec'md Rec'md | 2.5 2.9 | 1.5 1.3 |
| 90 91 | 6/35 10/40 | C C | Satisfactory Satisfactory | B B | Not recm'd Rec'md | 1.6 1.5 | 1.0 1.4 |
| 107 118 | 7/34 34/123 | C B | Average Average | B B | Rec'md Not rec'md | 1.8 1.7 | .7 1.1 |
| 120 121 | 82/182 28/52 | B C | Inferior No comment | D B | Rec with ex. Rec'md | 1.1 1.6 | 1.1 .9 |
| 123 133 | 25/107 2/25 | B D | Average Excellent | B C | Rec'md Rec'md | 1.9 3.0 | .6 .9 |
| 152 127 | 1/43 47/268 | C A | Excellent Satisfactory | C C | Rec'md Not Rec'md | 3.0 1.8 | 1.5 .5 |
| 15 24 | 21/97 99/523 | B A | Satisfactory Satisfactory | B C+ | Rec'md Rec'md | 2.0 2.1 | .8 1.3 |

3.0 Gd-Pnt Avg is straight "A" record
 1.0 Gd-Pnt Avg is a "C" average

Table XXIII presents a thumb-nail summary of the records of a few scholarship students showing rank in graduating class, size of high school, principal's prediction and principal's action, high school grade-point average, and college grade-point average. The table is read as follows: Student Number 90 ranked 6th in his class of 35 which is a Class C school, was expected to do satisfactory work in college, attained a "C+" average in high school, was not recommended by his high school principal, for he had not attained the grade of "B" which is necessary for recommendation to college. He was admitted on scholarship and earned a 1.0 average in college which is a straight "C" average. Because he did not attain a 1.6 average the scholarship award was not renewed for this student.

Is there any significant difference in the high school background or preparation of the members of the two groups of scholarship students? As has already been pointed out, 51 per cent of the cancellation group came from Class C and Class D high schools, while 60 per cent of the renewal group came from Class A and Class B high schools.

The marks earned in high school were taken from the student's application blank to the Registrar of the College. A value of 3 points was assigned for every "A" received in high school, a value of 2 points for every "B", a value of

1 point for every "C", no points for the "D's", and a minus 1 point for each failing mark. The total number of points was divided by the total number of credits earned to obtain a grade point average. In other words, the average is determined by dividing the number of honor points by the total number of marks.¹⁵

When this is done for all the 586 students we find quite a variation among the scholarship students. The members of the renewal group were much superior to the members of the cancellation group as far as their high school preparation is concerned when measured in terms of high school marks. The cancellation students had a grade point average of 2.199 while the renewal students had a grade point average of 2.546. The members of the regular group had a high school average of 1.730 while the members of the withdrawal group averaged 2.260. The high school grade point averages are summarized in Table XXIV.

¹⁵For example, if a student had 17 A's, 8 B's, 7 C's, and 2 D's, his average would be figured as follows: $(17 \times 3) + (8 \times 2) + (7 \times 1) + (2 \times 0) = 74$ points. The total number of points, 74, is now divided by the total number of marks, 34, to obtain the grade point average. In this case we obtain an average of 2.2.

TABLE XXIV
HIGH SCHOOL GRADE POINT AVERAGES

| Group | Average |
|--------------|---------|
| Withdrawal | 2.260 |
| Cancellation | 2.199 |
| Renewal | 2.546 |
| Regular | 1.730 |

On the transcript of credits which is forwarded to the Registrar of the College, the student's high school marks are grouped into 7 categories. These are: I, English; II, Languages; III, Mathematics; IV, Physical Sciences; V, Social Sciences; VI, Vocational; and VII, Miscellaneous. Many of the transcripts studied showed that students did not necessarily take subjects from all of these categories. An analysis of these marks was made on the following basis: If a student had more A's in a subject than B's, he was given an A- average, if he had more B's than A's, he was given a B+ in that subject, and if he had the same number of A's, B's, and C's in the same subject he was given a B average in that subject. In this way the marks of all the 586 students were averaged.¹⁶

These marks were summarized in marks of A, B, C, D, and F only and are presented in Table XXV.

¹⁶For a break-down of marks into the 7 categories see Appendix H.

TABLE XXV
COMPOSITE HIGH SCHOOL AVERAGES OF ALL FOUR GROUPS

| Group | Number of students | Number of marks | | | | |
|--------------|--------------------|-----------------|------|-----|-----|---|
| | | A | B | C | D | F |
| Withdrawal | 33 | 66 | 115 | 26 | 0 | 0 |
| Cancellation | 158 | 277 | 551 | 135 | 6 | 0 |
| Renewal | 195 | 688 | 513 | 42 | 5 | 0 |
| Regular | 200 | 168 | 498 | 427 | 95 | 3 |
| Totals | 586 | 1199 | 1677 | 630 | 109 | 3 |

Let us apply the chi-square test to determine whether the differences between the theoretical and the observed frequencies of marks can reasonably be attributed to chance variations in sampling. In other words, are the marks of the students in the various groups distributed in the same proportion as the total marks are distributed? In this table we throw the frequencies of the last cell into cell D making a 4x4 table with 9 degrees of freedom. From these data we obtain a chi-square of over 959. This means that a χ^2 as large as 959 would occur not more than once in 100 samples if our hypothesis were true. Therefore we reject the hypothesis that the marks of the students are distributed in the same proportion as the total marks and conclude that there is significant difference in the marks

obtained by the members of the various groups of students.

It was pointed out previously that not every student had taken subjects from each of the 7 subject fields. This fact was most noticeable in the language section where it was discovered that only 66.5 per cent of the cancellation students had studied foreign language in high school while 83.5 per cent of the renewal students had taken one or more languages in high school.

This may indicate one of two things; either those students who studied language in high school were very superior students scholastically, or that because these students studied foreign language in high school they were able to earn the 1.6 average in college and thus retain their scholarships. There is not enough evidence to support either of these conjectures, and the statistics at hand are not adequate to prove that scholarships are renewed because the students studied foreign language in high school, or that scholarships are cancelled because the students did not study language in high school. The college grade point averages were obtained for all members of the groups who had studied language in high school and for those who had not studied language in high school. In every one of the 4 groups of students we find higher grade point averages for those students who studied foreign language in high school. Eicher's study revealed that students who studied Latin and French in high school showed

the first of these is the fact that the
the second is the fact that the
the third is the fact that the
the fourth is the fact that the
the fifth is the fact that the
the sixth is the fact that the
the seventh is the fact that the
the eighth is the fact that the
the ninth is the fact that the
the tenth is the fact that the
the eleventh is the fact that the
the twelfth is the fact that the
the thirteenth is the fact that the
the fourteenth is the fact that the
the fifteenth is the fact that the
the sixteenth is the fact that the
the seventeenth is the fact that the
the eighteenth is the fact that the
the nineteenth is the fact that the
the twentieth is the fact that the
the twenty-first is the fact that the
the twenty-second is the fact that the
the twenty-third is the fact that the
the twenty-fourth is the fact that the
the twenty-fifth is the fact that the
the twenty-sixth is the fact that the
the twenty-seventh is the fact that the
the twenty-eighth is the fact that the
the twenty-ninth is the fact that the
the thirtieth is the fact that the
the thirty-first is the fact that the
the thirty-second is the fact that the
the thirty-third is the fact that the
the thirty-fourth is the fact that the
the thirty-fifth is the fact that the
the thirty-sixth is the fact that the
the thirty-seventh is the fact that the
the thirty-eighth is the fact that the
the thirty-ninth is the fact that the
the fortieth is the fact that the
the forty-first is the fact that the
the forty-second is the fact that the
the forty-third is the fact that the
the forty-fourth is the fact that the
the forty-fifth is the fact that the
the forty-sixth is the fact that the
the forty-seventh is the fact that the
the forty-eighth is the fact that the
the forty-ninth is the fact that the
the fiftieth is the fact that the
the fifty-first is the fact that the
the fifty-second is the fact that the
the fifty-third is the fact that the
the fifty-fourth is the fact that the
the fifty-fifth is the fact that the
the fifty-sixth is the fact that the
the fifty-seventh is the fact that the
the fifty-eighth is the fact that the
the fifty-ninth is the fact that the
the sixtieth is the fact that the
the sixty-first is the fact that the
the sixty-second is the fact that the
the sixty-third is the fact that the
the sixty-fourth is the fact that the
the sixty-fifth is the fact that the
the sixty-sixth is the fact that the
the sixty-seventh is the fact that the
the sixty-eighth is the fact that the
the sixty-ninth is the fact that the
the seventieth is the fact that the
the seventy-first is the fact that the
the seventy-second is the fact that the
the seventy-third is the fact that the
the seventy-fourth is the fact that the
the seventy-fifth is the fact that the
the seventy-sixth is the fact that the
the seventy-seventh is the fact that the
the seventy-eighth is the fact that the
the seventy-ninth is the fact that the
the eightieth is the fact that the
the eighty-first is the fact that the
the eighty-second is the fact that the
the eighty-third is the fact that the
the eighty-fourth is the fact that the
the eighty-fifth is the fact that the
the eighty-sixth is the fact that the
the eighty-seventh is the fact that the
the eighty-eighth is the fact that the
the eighty-ninth is the fact that the
the ninetieth is the fact that the
the ninety-first is the fact that the
the ninety-second is the fact that the
the ninety-third is the fact that the
the ninety-fourth is the fact that the
the ninety-fifth is the fact that the
the ninety-sixth is the fact that the
the ninety-seventh is the fact that the
the ninety-eighth is the fact that the
the ninety-ninth is the fact that the
the hundredth is the fact that the

the best achievement in college.¹⁷ However, he did not show that the high scholarship achievement in college was due to the fact that the students studied foreign language in high school.

The data presented and analyzed in this chapter concern the high school backgrounds of the 586 students whose records are one of the main sources of information for this investigation. Inasmuch as the conclusions of this study are given in a chapter by themselves, it is sufficient to state here that the academic success of freshmen in college is definitely related to the size of high school from which they were graduated.

The chapter which follows will be devoted to a presentation and analysis of the first year college records of the scholarship students. This is the second phase of the investigation.

¹⁷ Elcher, op. cit., p. vii.

CHAPTER VI
PRESENTATION AND ANALYSIS OF THE FIRST YEAR COLLEGE
RECORDS OF THE 553 STUDENTS

The discussion so far has presented the background of the scholarship students leading up to their matriculation at college. Characteristics relating to their social and academic records have been analyzed. This chapter will present an analysis of the academic success of these students during their freshman year at Michigan State College. This analysis will reveal how well these students were prepared for college by their respective high schools and how well they adjusted themselves to college life.

The first data that can be presented to throw light on this subject are the scores which these students made on the American Council Psychological Examination administered by the college during the week of registration. The test is composed of the following sections:

Q-score: Measures abilities in quantitative thinking

L-score: Measures linguistic abilities

Total score: Measures general college ability

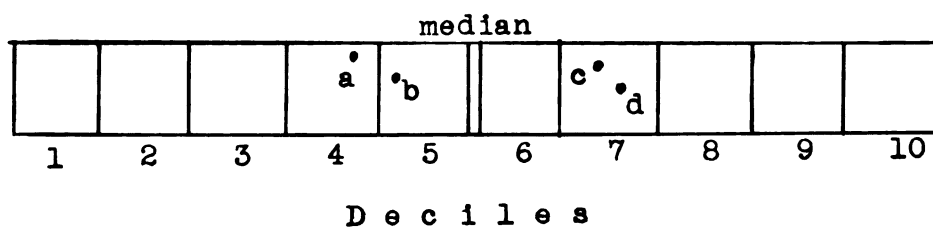
V-score: Measures general reading vocabulary

R-score: Measures speed of reading and comprehension

C-score: Measures level of student's ability to read

Total score: Measures general reading ability





- (a) represents general reading average for the cancellation group, 4.6 decile
- (b) represents general intelligence average for the cancellation group, 5.1 decile
- (c) represents general reading average for the renewal group, 7.4 decile
- (d) represents general intelligence average for the renewal group, 7.5 decile

FIGURE 8

THE DECILE DISTRIBUTION OF AVERAGE TEST SCORES

The scores which the students obtained on this test were tabulated by deciles¹ from which the following conclusions were drawn: (1) the members of the renewal group were highly superior to all other groups on the basis of these intelligence scores, (2) their general reading ability and their general intelligence level both averaged in the 7th decile, (3) the members of the cancellation group were no better than the regular group for they ranked in the 5.1 decile in general intelligence against a rank of 5.0 for the regular students, and (4) the cancellation group ranked in the 4.6 decile in reading ability against a 5.2 ability for the regular group.

TABLE XXVI
DECILE AVERAGES ON THE PSYCHOLOGICAL TESTS

| Group | General Intelligence | General Reading |
|--------------|----------------------|-----------------|
| Withdrawal | 5.485 | 5.121 |
| Cancellation | 5.108 | 4.639 |
| Renewal | 7.526 | 7.354 |
| Regular | 5.021 | 5.164 |

The tenth decile contains the upper 10 per cent of

¹A decile grouping represents 10 per cent of the total group. A first decile rating places an individual in the lowest 10 per cent of the group.

the students and the fifth decile contains those students ranking between the 40th and 50th percentile. Thus anyone ranking in the fifth decile is just below the median of the group. Figure 8 reveals graphically that over half of the cancellation students scored in the lower 40 per cent of the entire Freshman Class on the general reading test.

Table XXVII shows such a big difference between the means of the two groups that we must test the difference between the means.

TABLE XXVII
STANDARD DEVIATIONS OF THE DECILE DISTRIBUTIONS

| Group | General Intelligence | | General Reading | |
|--------------|----------------------|--------------------|-----------------|--------------------|
| | \bar{x} | $\sigma_{\bar{x}}$ | \bar{x} | $\sigma_{\bar{x}}$ |
| Cancellation | 5.108 | .197 | 4.639 | .203 |
| Renewal | 7.526 | .166 | 7.354 | .163 |

The t test between the standard errors of the means of the general intelligence examinations gives a t value of 9.37 and the t test between the standard errors of the means of the general reading examinations gives a t value of 10.44. Both of these results are highly significant at the 1 per cent level of confidence and clearly reveal that the students in the cancellation group are below average in both general intelligence and general reading ability on the Psychological Examinations administered to 3708 freshmen.

TABLE XXVIII

FREQUENCIES OF PSYCHOLOGICAL TEST SCORES TABULATED BY DECILES

| | Below average | | | | | Above average | | | | |
|---------------------|---------------|----|----|----|----|---------------|----|----|----|----|
| | Deciles | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <u>Withdrawal</u> | | | | | | | | | | |
| Intell. | 5 | 1 | 4 | 4 | 4 | 2 | 4 | 0 | 4 | 5 |
| Reading | 5 | 6 | 2 | 3 | 2 | 3 | 0 | 5 | 4 | 3 |
| <u>Cancellation</u> | | | | | | | | | | |
| Intell. | 10 | 14 | 26 | 23 | 12 | 17 | 28 | 10 | 11 | 6 |
| Reading | 18 | 25 | 14 | 20 | 22 | 14 | 17 | 17 | 7 | 4 |
| <u>Renewal</u> | | | | | | | | | | |
| Intell. | 3 | 5 | 5 | 11 | 11 | 16 | 23 | 42 | 32 | 45 |
| Reading | 1 | 2 | 11 | 15 | 14 | 19 | 25 | 25 | 41 | 39 |
| <u>Regular</u> | | | | | | | | | | |
| Intell. | 22 | 23 | 26 | 24 | 21 | 8 | 21 | 25 | 13 | 12 |
| Reading | 22 | 24 | 16 | 23 | 19 | 27 | 28 | 12 | 13 | 15 |

The table above clearly shows the superiority of the renewal group over any other group but is shown still more emphatically in the break-down which follows.

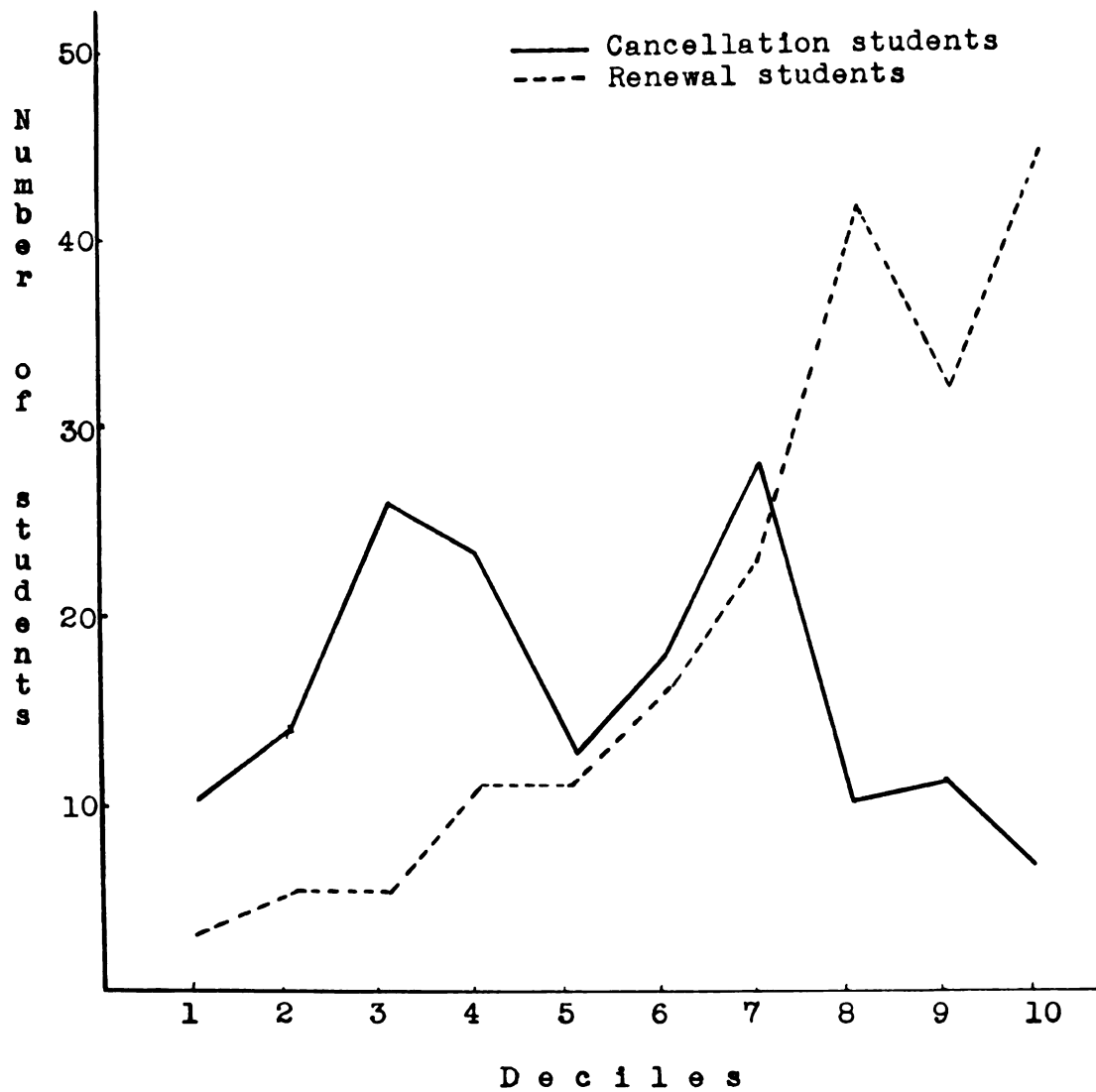


FIGURE 9

FREQUENCY DISTRIBUTION OF DECILE SCORES ON THE GENERAL INTELLIGENCE TEST

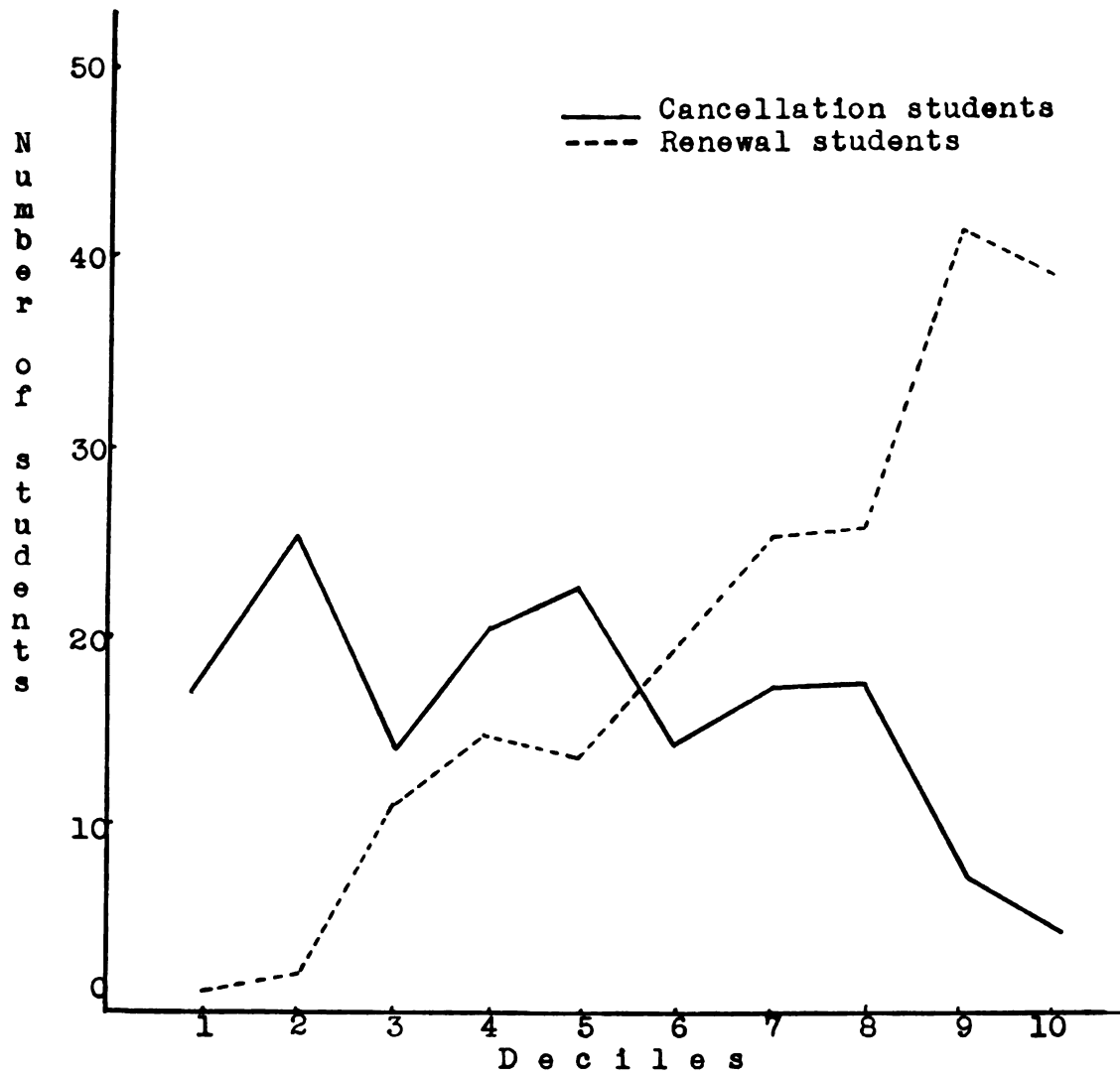


FIGURE 10
FREQUENCY DISTRIBUTION OF DECILE SCORES ON THE
GENERAL READING TEST

TABLE XXIX
BELOW AVERAGE AND ABOVE AVERAGE DECILE DISTRIBUTIONS
ON THE GENERAL INTELLIGENCE TEST

| | Below average | Above average |
|--------------|---------------|---------------|
| Cancellation | 85 | 72 |
| Renewal | 35 | 158 |

TABLE XXX
BELOW AVERAGE AND ABOVE AVERAGE DECILE DISTRIBUTIONS
ON THE GENERAL READING ABILITY TEST

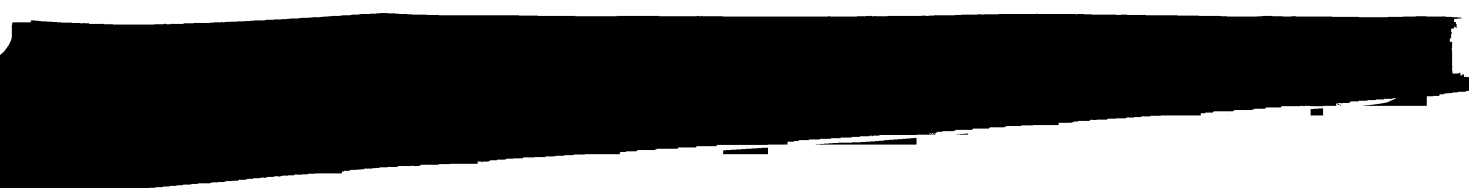
| | Below average | Above average |
|--------------|---------------|---------------|
| Cancellation | 99 | 59 |
| Renewal | 43 | 149 |

It would not have been necessary to apply any statistical formula to test the difference between the means of the two groups. Tables XXIX and XXX clearly reveal the superiority of the renewal students over the cancellation students. Table XXVIII shows that the scores of the regular students were quite uniformly distributed which is as we might expect.

The purpose of this investigation is to determine why 40 per cent of those students who entered Michigan State College on scholarship lost their scholarship at the

end of the freshman year. It is well to analyze the academic records of these freshmen while students at State. During the year 1949-1950 each credit of "A" earned by students at Michigan State College carried a total of 3 honor points, a "B" carried 2 points, a "C" carried 1 point, a "D" had zero points and an "F" a minus 1 point. A student having an all "A" average had an honor point average of 3.0. An average student, or a "C" student, had a 1.0 average. In order to be graduated from Michigan State College it is necessary for a student to maintain a "C" average; in other words to earn as many honor points as credit hours. On this basis of honor points the Scholarship Committee decided that a 1.6 average would be necessary for a student to earn a renewal of the scholarship award. This means that if a student earns 9 credits of "B" work and 6 credits of "C" work per term, he would earn exactly the 1.6 average required for the renewal. The fact that 41 per cent of the scholarship students admitted to Michigan State in the fall of 1949 did not attain this standard of academic achievement prompted this study.

The second source of data to determine just how well the high schools prepared their students for college work is the marks which these students received as freshmen. Table XXXI reveals that the cancellation students earned just slightly better than a "C" average for an



honor point ratio of 1.095. The renewal students earned just slightly better than a "B" average for an honor point ratio of 2.062.

TABLE XXXI

HONOR POINT AVERAGES OF THE FOUR GROUPS DURING THEIR HIGH SCHOOL YEARS AND THEIR FRESHMAN YEAR IN COLLEGE

| Group | High School Average | College Freshman |
|--------------|---------------------|------------------|
| Withdrawal | 2.260 | 1.170 |
| Cancellation | 2.199 | 1.095 |
| Renewal | 2.546 | 2.062 |
| Regular | 1.730 | 1.098 |

It is apparent from these figures that the members of the cancellation group did no better than the regular or average college freshmen. The average for the Freshman Class for the year 1949-1950 was 1.19.² Therefore, the members of the cancellation group, who were scholarship students, did not reach the scholarship achievement of the average college freshman.

Computations are made using the records of the re-turning students only and are computed every fall term. The honor point averages listed in Table XXXI were obtained

² Information secured from the Office of the Registrar, Michigan State College.

by first finding the average honor point ratio for each student, then adding these averages and dividing by the total number of students. If \bar{x} equals the honor point ratio per student then the average honor point ratio equals $\frac{\sum \bar{x}}{n}$ where n = number of students.

TABLE XXXII

AVERAGE NUMBER OF CREDITS, AVERAGE NUMBER OF HONOR POINTS, AND GRADE-POINT AVERAGES EARNED DURING THE FRESHMAN YEAR

| Group | Credits | Points | Point Average |
|--------------|---------|---------|---------------|
| Withdrawal | 15.306 | 17.871 | 1.168 |
| Cancellation | 47.418 | 53.399 | 1.126 |
| Renewal | 51.756 | 106.667 | 2.061 |
| Regular | 44.901 | 53.333 | 1.196 |

These averages are slightly different when the average number of honor points per student is divided by the average number of credit hours per student but they are still not very favorable for the cancellation group. The honor point average for this group is still below the average for the regular or random group.

The members of the renewal group carried 4.3 credit hours more per year, earned twice as many honor points per student, and earned per student almost one whole letter grade more per course than did the members of the cancellation group.

The standards set up by the Scholarship Committee to earn a renewal of the scholarship do not seem beyond the reach of the good student. The 1.6 average set up as the minimum achievement required for renewal is only a "C+" average. The following records of scholarship students show approximately what type of academic achievement is necessary in order to renew the award.

Here, for example, are the records of two of the freshmen scholarship students which reveal what quality of work is necessary to earn a renewal. Following these examples are the records of two freshmen students which show the type of work which results in cancellation of scholarships.

The first is the record of Student Number 66278. The record is not outstanding but is good enough to earn a renewal of the scholarship. This student received 5 "A's", 4 "B's", and 11 "C's" with no marks at all below "C".

| Fall 1949 | | | | Winter 1950 | | | | Spring 1950 | | | |
|-----------|----|----|-----|-------------|----|----|-----|-------------|----|----|-----|
| Course | Cr | Mk | Pts | Course | Cr | Mk | Pts | Course | Cr | Mk | Pts |
| 111 | 3 | C | 3 | 112 | 3 | B | 6 | 113 | 3 | A | 9 |
| 141 | 3 | C | 3 | 142 | 3 | C | 3 | 143 | 3 | C | 3 |
| 161 | 3 | C | 3 | 162 | 3 | C | 3 | 151 | 3 | C | 3 |
| 158 | 2 | C | 2 | 203 | 3 | A | 9 | 163 | 3 | C | 3 |
| 100c | 3 | A | 9 | 102 | 1½ | C | 1½ | 101 | 3 | C | 3 |
| 101 | 1½ | B | 3 | 103b | 1 | A | 3 | 103 | 1½ | B | 3 |
| 100d | 1 | B | 2 | | | | | 102k | 1 | A | 3 |

Though the record does not look impressive it shows that the student earned a total of $48\frac{1}{2}$ credits for a total of $86\frac{1}{2}$ honor points which gave him an honor-point-average of 1.78. This record automatically renewed his scholarship for another year.

Here is the record of Student Number 67125 for the freshman year:

| Fall 1949 | | | | Winter 1950 | | | | Spring 1950 | | | |
|-----------|----------------|----|----------------|-------------|----------------|----|----------------|-------------|----------------|----|----------------|
| Course | Cr | Mk | Pts | Course | Cr | Mk | Pts | Course | Cr | Mk | Pts |
| 111 | 3 | B | 6 | 112 | 3 | C | 3 | 113 | 3 | C | 3 |
| 121 | 3 | B | 6 | 122 | 3 | B | 6 | 123 | 3 | C | 3 |
| 141 | 3 | C | 3 | 142 | 3 | C | 3 | 143 | 3 | B | 6 |
| 101 | 3 | C | 3 | 102 | 3 | C | 3 | 201 | 3 | C | 3 |
| 101 | 3 | D | 0 | 102 | 3 | C | 3 | 103 | 3 | A | 9 |
| 101 | $1\frac{1}{2}$ | A | $4\frac{1}{2}$ | 152 | 1 | A | 3 | 103 | $1\frac{1}{2}$ | A | $4\frac{1}{2}$ |
| 101a | 1 | B | 2 | 102 | $1\frac{1}{2}$ | A | $4\frac{1}{2}$ | 100d | 1 | B | 2 |
| | | | | 102k | 1 | A | 3 | | | | |

The record of this student is not too impressive though it shows a total of $53\frac{1}{2}$ credits earned for a total of $83\frac{1}{2}$ honor points. This is an average of exactly 1.6 which is the minimum standard set by the committee for the renewal of the scholarship. An examination of this record reveals that though the student received several "A's", nearly all of them were obtained in one-credit courses. In the academic subjects the marks were mostly "B's" and "C's".

The following records are typical of students who entered Michigan State College on scholarship and did not earn the 1.6 average required for the renewal of the award.

The first is that of a student majoring in Language and Literature, Student Number 65445, who was graduated from a Class A high school ranking 10th in a class of 195 graduates with a high school grade point average of 2.6.

| Fall 1949 | | | | Winter 1950 | | | | Spring 1950 | | | |
|-----------|----|----|-----|-------------|----|----|-----|-------------|----|----|-----|
| Course | Cr | Mk | Pts | Course | Cr | Mk | Pts | Course | Cr | Mk | Pts |
| 111 | 3 | D | 3 | 112 | 3 | B | 6 | 113 | 3 | C | 3 |
| 121 | 3 | C | 3 | 122 | 3 | D | 0 | 123 | 3 | C | 3 |
| 151 | 3 | C | 3 | 152 | 3 | C | 3 | 153 | 3 | C | 3 |
| 222a | 3 | D | 0 | 222b | 3 | D | 0 | 222c | 3 | F | |
| 202a | 3 | D | 0 | 202b | 3 | C | 3 | 202c | 3 | B | 6 |
| 149 | 1 | A | 3 | 152 | 1 | B | 2 | 146 | 1 | B | 2 |

This student earned 45 credit hours of work for a total of 40 honor points. This gave an average of .9 which is below the all-college average and decidedly below the 1.6 average necessary to earn a renewal of the scholarship.

The next record is that of a student majoring in Education, Student Number 68096, who ranked second in a graduating class of 32 and earned a high school grade point average of 2.5. In college she earned 39 credits for a total of 47 honor points which gave her a 1.2 average.

| Fall 1949 | | | | Winter 1950 | | | | Spring 1950 | | | |
|-----------|----|----|-----|-------------|----|----|-----|-------------|----|----|-----|
| Course | Cr | Mk | Pts | Course | Cr | Mk | Pts | Course | Cr | Mk | Pts |
| 111 | 3 | C | 3 | 112 | 3 | C | 3 | 113 | 3 | B | 6 |
| 121 | 3 | C | 3 | 122 | 3 | C | 3 | 123 | 3 | C | 3 |
| 141 | 3 | C | 3 | 142 | 3 | D | 0 | 143 | 3 | C | 3 |
| 127 | 3 | D | 0 | 125a | 3 | C | 3 | 125b | 3 | C | 3 |
| 141 | 1 | C | 1 | 145 | 1 | B | 2 | 143c | 1 | B | 2 |

This record is slightly better than a "C" average and

consequently way below the 1.6 required for the renewal of the scholarship; hence the award was cancelled.

Another phase worthy of investigation is the enrollment by Schools to determine if any one School on the Michigan State College campus was responsible for more than its share of cancellations among the scholarship students. Every freshman is automatically enrolled in the Basic College upon matriculation. If he has decided upon a field of specialization such decision is noted on his records and he is enrolled, then, in the appropriate School. If a student has made no choice he is simply listed as being enrolled in the Basic College. Twenty-seven per cent of all freshmen enrolling in the fall of 1949 entered without declaring their field of specialization and were enrolled in the Basic College.

From the entire group of 386 scholarship students, 24 per cent of them enrolled in the Basic College without having declared a major. Of this entire group, 46 per cent of them lost their scholarships. The fact that they may have been studying without having a definite goal in mind may have contributed to this high mortality. Of the 158 scholarship students in the cancellation group, 42 of them were enrolled in the Basic College. This number amounts to 27 per cent of the total and coincides exactly with the percentage of freshmen enrollees in the Basic College. Table XXXIII presents a summary and a clearer

picture of the enrollments in the Basic College and reveals that the various sample percentages of the different populations are quite consistent with one exception, namely, that 46 per cent of all scholarship students lost their scholarships.

TABLE XXXIII

PERCENTAGES OF SAMPLE POPULATIONS IN THE BASIC COLLEGE

| |
|---|
| 27 per cent of all freshmen were enrolled in Basic College only |
| 24 per cent of all scholarship students were in B. C. only |
| 46 per cent of these B. C. schol. students lost their schol. |
| 27 per cent of all cancellation students were in Basic Col. |
| 27 per cent of all renewal students were in Basic College |
| 22 per cent of all withdrawal students were in Basic College |

The enrollments by Schools are given in Table XXXIV and reveal the fact that in 5 of 7 Schools practically half of the scholarship students enrolled lost their scholarships. The two exceptions are the Schools of Science and Arts and Veterinary Medicine.

TABLE XXXIV
ENROLLMENT OF STUDENTS BY SCHOOLS

| Schools | Groups | | | | |
|------------------|------------------|--------------------|---------------|----------------------------------|----------|
| | With- drawals | Cancel- lations | Renew- als | All Schol- arship students | Regulars |
| Agriculture | 3 | 13 | 11 | 27 | 16 |
| Public Service | 4 | 25 | 25 | 54 | 42 |
| Engineering | 3 | 21 | 10 | 43 | 21 |
| Home Economics | 3 | 22 | 19 | 44 | 20 |
| Science and Arts | 10 | 32 | 63 | 105 | 52 |
| Vet. Medicine | 3 | 3 | 6 | 12 | 12 |
| Basic College | 7 | 42 | 52 | 91 | 37 |
| Total | 33 | 158 | 195 | 386 | 200 |

In order to ascertain if any one School was responsible for more than its share of cancellations it was necessary to find the distribution of enrollments of all freshmen by Schools and then compare the percentages. These summaries by Schools are given in the tables which follow:

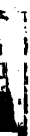


TABLE XXXV
PERCENTAGES OF SAMPLE POPULATIONS IN THE
SCHOOL OF AGRICULTURE

8 per cent of all freshmen were enrolled in the School of Agri.
 7 per cent of all scholarship students were enrolled in the
 School of Agriculture
 48 per cent of these scholarship students lost their schol.
 8 per cent of all cancellations students were in Sch. of Agri.
 6 per cent of all renewal students were in Sch. of Agriculture
 9 per cent of all withdrawal students were in Sch. of Agri.

There were 27 scholarship students enrolled in the
 School of Agriculture. Of these, 13, or 48 per cent lost
 their scholarships at the end of the school year.

TABLE XXXVI
PERCENTAGES OF SAMPLE POPULATIONS IN THE
SCHOOL OF BUSINESS AND PUBLIC SERVICE

23 per cent of all freshmen were enrolled in this School
 14 per cent of all scholarship students were in this School
 46 per cent of these scholarship students lost their schol.
 16 per cent of all cancellation students were in this School
 13 per cent of all renewal students were in this School
 12 per cent of all withdrawal students were in this School

There were 54 scholarship students enrolled in the School of Business and Public Service. Of these, 25, or 46 per cent lost their scholarships at the end of the school year.

TABLE XXXVII
PERCENTAGES OF SAMPLE POPULATIONS IN THE
SCHOOL OF ENGINEERING

| |
|--|
| 6 per cent of all freshmen were enrolled in this School |
| 11 per cent of all scholarship students were in this School |
| 49 per cent of these scholarship students lost their schol. |
| 13 per cent of all cancellation students were in this School |
| 10 per cent of all renewal students were in this School |
| 9 per cent of all withdrawal students were in this School |

There were 43 scholarship students enrolled in the School of Engineering. Of these, 21, or 49 per cent lost their scholarships at the end of the school year.

TABLE XXXVIII
PERCENTAGES OF SAMPLE POPULATIONS IN THE
SCHOOL OF HOME ECONOMICS

7 per cent of all freshmen were enrolled in this School
11 per cent of all scholarship students were in this School
50 per cent of these scholarship students lost their schol.
14 per cent of all cancellation students were in this School
10 per cent of all renewal students were in this School
9 per cent of all withdrawal students were in this School

There were 44 scholarship students enrolled in the School of Home Economics. Of these, 22, or exactly 50 per cent of them lost their scholarships at the end of the first year.

In the School of Science and Arts there were 105 scholarship students enrolled. Of these, 32, or 30 per cent lost their scholarships at the end of the school year.

TABLE XXXIX

PERCENTAGES OF SAMPLE POPULATIONS IN THE
SCHOOL OF SCIENCE AND ARTS

23 per cent of all freshmen were enrolled in this School
 11 per cent of all scholarship students were in this School
 30 per cent of these scholarship students lost their schol.
 14 per cent of all cancellation students were in this School
 10 per cent of all renewal students were in this School
 9 per cent of all withdrawal students were in this School

TABLE XL

PERCENTAGES OF SAMPLE POPULATIONS IN THE
SCHOOL OF VETERINARY MEDICINE

6 per cent of all freshmen were enrolled in this School
 3 per cent of all scholarship students were in this School
 25 per cent of these scholarship students lost their schol.
 2 per cent of all cancellation students were in this School
 3 per cent of all renewal students were in this School
 9 per cent of all withdrawal students were in this School

There were 12 scholarship students enrolled in the School of Veterinary Medicine. Of these, only 3, or 25 per cent lost their scholarships at the end of the school year.

The most important statistic in the preceding tables is the percentage of all scholarship students in the various Schools who lost their scholarships. The percentages are summarized in the following table.

TABLE XLI

PERCENTAGES OF ALL SCHOLARSHIP STUDENTS IN THE
VARIOUS SCHOOLS WHO LOST THEIR SCHOLARSHIPS

| School | Per cent |
|-----------------------------|----------|
| Agriculture | 48 |
| Business and Public Service | 46 |
| Engineering | 49 |
| Home Economics | 50 |
| Science and Arts | 30 |
| Veterinary Medicine | 25 |
| Basic College | 46 |
| All Schools | 41 |

This table reveals the fact that 5 of the 7 Schools had a scholarship mortality percentage greater than the all-School total of 41 per cent.

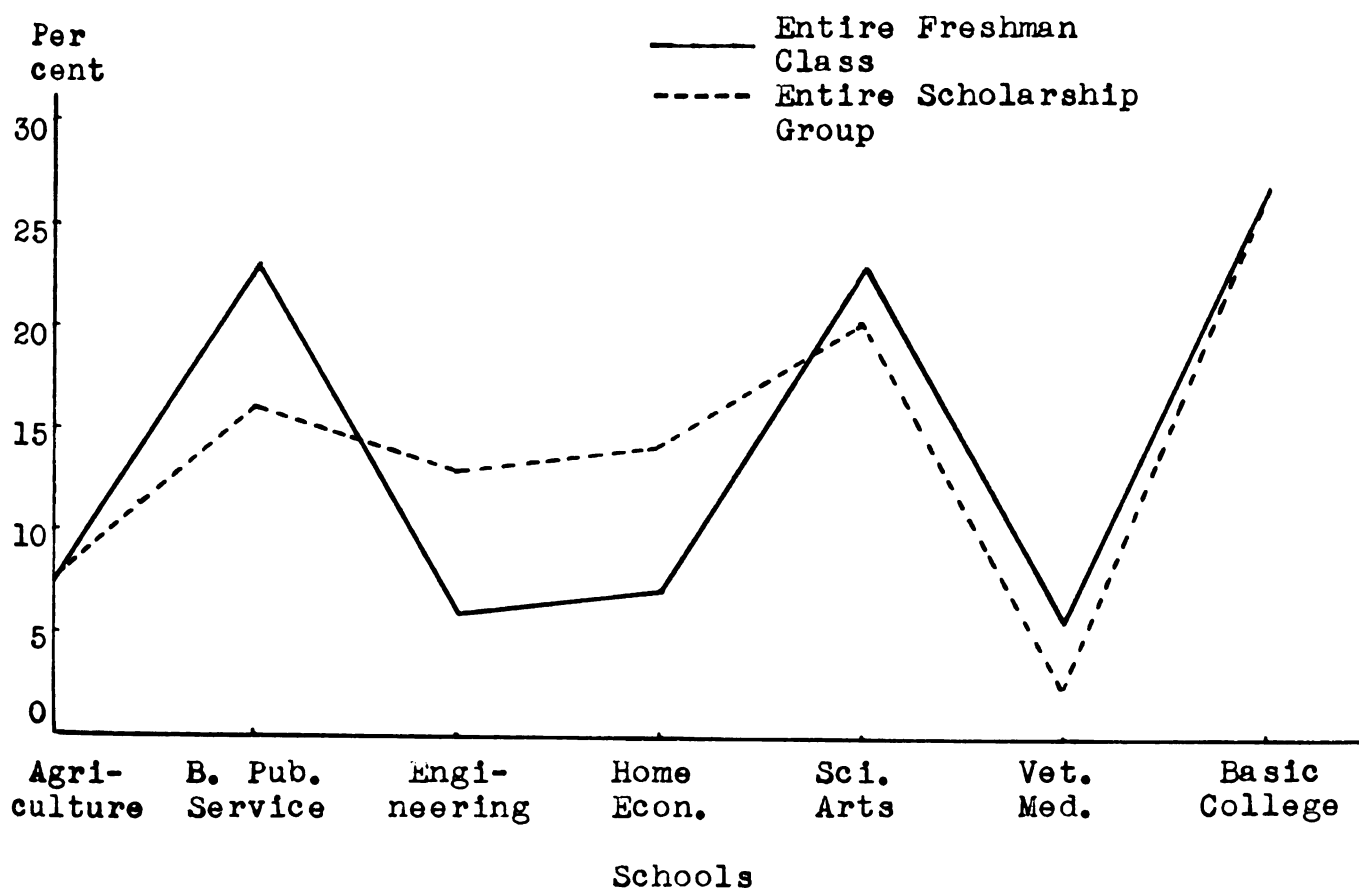


FIGURE 11

PERCENTAGES OF ENROLLMENTS BY SCHOOLS OF THE ENTIRE FRESHMAN CLASS AND THE SCHOLARSHIP STUDENTS WHOSE AWARDS WERE CANCELLED

1

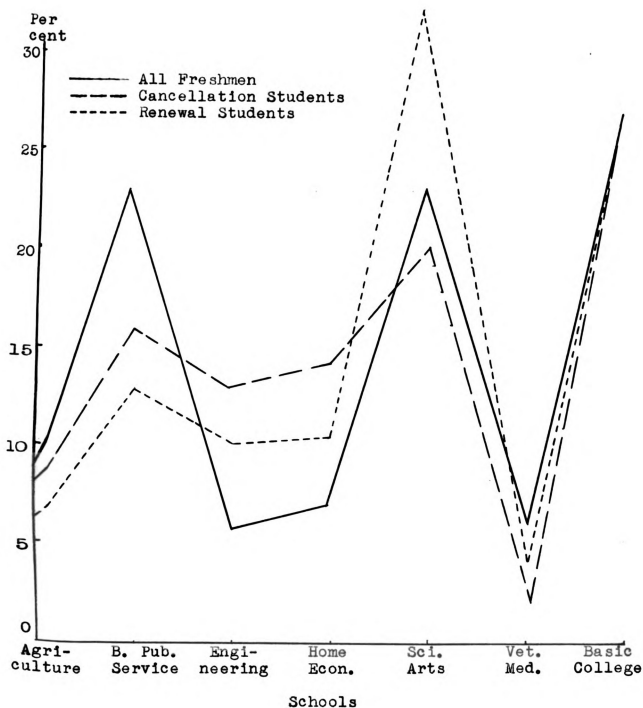


FIGURE 12

PERCENTAGES OF ENROLLMENTS BY SCHOOLS OF THE ENTIRE FRESHMAN CLASS VERSUS PERCENTAGES BY SCHOOLS OF TOTAL SCHOLARSHIP STUDENTS WHOSE AWARDS WERE RENEWED OR CANCELLED

An examination of Figure 11 reveals that the School of Engineering enrolled but 6 per cent of the entire Freshman Class but it was responsible for 13 per cent of the total number of cancellations. The School of Home Economics enrolled but 7 per cent of the entire Freshman Class but it was responsible for 14 per cent of the total number of cancellations. It appears from this information that the School of Engineering and the School of Home Economics furnished more than their proportionate share of the number of scholarship cancellations. On the other hand, the School of Business and Public Service had a more commendable record, for it was responsible for only 16 per cent of the total number of cancellations, while it enrolled 23 per cent of the entire Freshman Class.

In summary it must be said that the evidence is not conclusive enough to blame any one School for the high rate of scholarship cancellations, but it appears that the Schools of Home Economics and Engineering furnished more than their proportionate share of cancellations.

Inasmuch as no one particular School was responsible for the high mortality among scholarship students, it appeared quite probable that the causes then lay within the individual subject areas within the Schools. What courses, then, among the electives and non-basics, caused the students to lose honor points? In what courses did the scholarship students receive low marks? The large master

tally sheet which was made for the entire student group investigated in this study lists all the courses and course marks earned by these students during their first year at Michigan State.³ A tally from the master copy was made of all the courses in which the students received zero or negative honor points. This meant all the courses in which students received "D's" or "F's". These were the courses which had the greatest effect on the students' honor point averages and indirectly caused the cancellation of their scholarships.

The scholarship students received a total of 184 "D's" and "F's" of which 146, or 74 per cent, were obtained by members of the cancellation group. The departments responsible for the greatest percentages of these low marks were: Mathematics, Chemistry, Military Science, Physical Education for Men, and Physical Education for Women. The specific courses which caused a loss of honor points were: Mathematics 101 (13 times), Mathematics 103 (9 times), Military Science 101 (8 times), Military Science 102 (8 times), Mathematics 108d (7 times), Chemistry 102 (6 times), and Engineering Drawing 105 (6 times).

³ See Appendix G.

TABLE XLII
FREQUENCY DISTRIBUTION OF SUBJECTS IN WHICH SCHOLARSHIP
STUDENTS RECEIVED D'S AND F'S

| Subject | Frequency |
|------------------------------|-----------|
| Mathematics | 39 |
| Military Science | 21 |
| Chemistry | 17 |
| Physical Education for Men | 15 |
| Physical Education for Women | 11 |
| Geography | 9 |
| History | 8 |
| Languages | 8 |
| Agriculture | 7 |
| Engineering Drawing | 6 |
| Business Administration | 6 |
| Speech | 5 |
| Political Science | 7 |
| Art | 3 |
| Education | 3 |
| Forestry | 3 |
| Music | 3 |
| Miscellaneous, less than 2 | 9 |

Another means of determining which subject areas have the highest mortality among the scholarship students is by an analysis of the students' declared majors. An examination of Table LXIII shows that 50 per cent of the scholarship students who had made no declaration of a major lost their scholarships. There were 53 students majoring in Home Economics and 55 per cent of them lost their scholarships. In Agriculture, 12 out of 20, or 60 per cent lost their awards. In Business Administration, 14 out of 24, or 58 per cent lost their scholarships. In Physical Education, 11 out of 17 made a percentage loss of 65 per cent. These figures do not necessarily indict the departments concerned but merely reveal that of scholarship students majoring in Home Economics, Agriculture, Business Administration, Physical Education, or having no preference at all, over half of them lost their scholarships.

TABLE XLIII
DISTRIBUTION OF MAJOR FIELDS OF EMPHASIS

| Fields | Group | | | |
|----------------------|-------|------|------|------|
| | With. | Can. | Ren. | Reg. |
| Non-Preference | 7 | 31 | 31 | 29 |
| Home Economics | 3 | 29 | 24 | 17 |
| Lang., Literature | 2 | 8 | 15 | 11 |
| Agriculture | 0 | 12 | 8 | 10 |
| Social Science | 2 | 5 | 12 | 3 |
| Engineering | 4 | 16 | 18 | 14 |
| Physical Science | 2 | 3 | 12 | 3 |
| Bus. Administration | 2 | 14 | 10 | 24 |
| Education | 0 | 9 | 21 | 20 |
| Physical Education | 1 | 11 | 6 | 8 |
| Fine Arts | 1 | 7 | 11 | 10 |
| Journalism | 1 | 4 | 8 | 9 |
| Pre-Dentistry | 0 | 2 | 0 | 1 |
| Pre-Medicine | 0 | 1 | 3 | 1 |
| Pre-Veterinary | 3 | 2 | 6 | 10 |
| Hotel Administration | 0 | 1 | 1 | 4 |
| Forestry | 2 | 0 | 4 | 5 |
| Med. Technology | 0 | 0 | 2 | 3 |
| Social Service | 0 | 2 | 2 | 3 |
| English | 0 | 1 | 0 | 0 |

The basic college plan provides that every freshman at Michigan State complete a year's work in a choice of five of seven fields of study as described on page 4. At the end of the year, or sooner if he is able and obtains permission, the student writes off the comprehensive examination for credit in the course. The term-end grade, which is the mark received at the end of the third term, is the mark recorded for the student for his year's work. If a student has two terms of "B" work in Written and Spoken English for example, and receives a "C" at the end of the third term he receives 9 hours credit of "C" work. Conversely, if a student receives a "C" and a "B" and then receives an "A" for the final term he will receive 9 hours credit of "A" work. The system of marking has both advantages and disadvantages, both proponents and opponents, and has earned some disfavor among the students.⁴

It has been suggested by both faculty and students that if the marks given out for the separate term's work were used as the basis for determining the renewal of the scholarship, then many of those whose scholarships were cancelled would not have had them cancelled. It has been claimed that this marking system is one of the reasons why so many students lost their awards.

⁴See results of question 13 in the next chapter.

An examination of the marks given out in the basic subjects reveals that if the marks given for the separate term's work were used instead of the comprehensive mark for determining a student's honor point average, then 16 scholarship students who lost their scholarships would not have lost them. These 16 students would have earned the 1.6 honor point average and with it the continuation of the tuition-free award.

In like manner, if the marks for the separate terms were used for all the other scholarship students then 16 of those whose scholarships were renewed would have lost enough honor points to bring their honor point average below the 1.6 required for renewal and they would have lost their scholarship awards. Thus, were the system changed for the purpose of determining the requirements for the renewal of the scholarships, there would be neither a gain nor loss as far as this group of 386 scholarship students is concerned. The percentages of cancellations and renewals would remain the same. Therefore the comprehensive marking system is not a cause of scholarship cancellations for while it jeopardizes some, it favors others.

This chapter presents the records of the scholarship students through their freshman year. These records include the scores made on the Psychological Examinations, the average number of credits and honor points earned during the year, examples of students' entire academic

records for the year, enrollments of the students by Schools, distribution of "D's" and "F's" by Schools and by courses, analysis of the students' declared majors, and analysis of the comprehensive marking system as it affected these scholarship students. Inasmuch as the conclusions of this study will be listed in Chapter VIII they will not be summarized here.

There is one more statistic that ought to be presented here though it has no direct bearing on the study. The records of these students were obtained in the fall of 1950 and it was convenient to determine which students returned to Michigan State for their second year. The investigator wanted to know how many of these students who, having lost their scholarships, returned to the campus to further their education. Among the cancellation group, 116 returned for their sophomore year. This constitutes 73 per cent. These students were able to return to study at Michigan State without the tuition-free award. Does this mean that they would have come as freshmen if the scholarship award had not been granted them? Are there several students studying at State under the scholarship system who are financially able to pay all of their own way? Among the renewal group there were 169 out of 195 who returned the second year. This is a percentage of 86.7. Among the regulars this percentage was 69.5. Inasmuch as 73 percent of the cancellation students returned

to Michigan State College the second year, it appears that the loss of the scholarship did not prove a financial handicap, neither did it abate their desire for an education.

The table which follows presents this information and concludes the chapter.

TABLE XLIV

NUMBER OF STUDENTS WHO RETURNED FOR THEIR SECOND YEAR

| Group | Total number | Number returning | Per Cent of total |
|--------------|--------------|------------------|-------------------|
| Cancellation | 158 | 116 | 73.4 |
| Renewal | 195 | 169 | 86.7 |
| Regular | 200 | 139 | 69.5 |

CHAPTER VII

RESULTS OF THE QUESTIONNAIRE

Since the purpose of this investigation is to find out why 41 per cent of the freshmen admitted to Michigan State College on scholarships fail to renew them at the end of the first year, the writer felt that perhaps the best source of information regarding causes for these shortcomings was the student himself. With this end in mind the writer prepared and sent a total of 462 questionnaires. It was stated at the outset that this investigation would be divided into three phases. The administration of the questionnaires is the third phase.

The questionnaires were prepared in the following manner:

1st step: The writer arranged for interviews with 10 scholarship students who had lost their scholarships but had returned to Michigan State College as sophomores. These interviews usually took place in the reception room of the student's dormitory by appointment and were held immediately following the evening meal. The interviewer informed the interviewees of his purpose and discussed informally the following subjects: place of residence during the freshman year, study habits and study facilities,

social activities, courses, major field of study, college administration, outside employment, emotional instability, likes and dislikes, counseling, high school background, and college life in general during their first year in college. The students were very much at ease and offered many helpful suggestions to the writer.

2nd step: Following the interviews the writer drew up a trial questionnaire with questions grouped under the following main headings:

- (a) Preparation by the high school
- (b) Application to college studies
- (c) Quality of college instruction
- (d) Environment of the campus

The names of 12 members of the cancellation group were selected at random and the trial questionnaire sent. A letter of explanation¹ and a self addressed stamped envelope accompanied each questionnaire.² Within two weeks replies were received from 8 of the 12 students.

3rd step: After careful examination of these results and analysis of the suggestions made thereon, the questionnaire was revised and submitted again to another group of 12 cancellation students selected at random. Again a letter

¹For copy of the letter see Appendix I.

²For copy of the questionnaire see Appendix J.

of explanation³ and a self addressed stamped envelope accompanied the questionnaire.⁴ This time 9 replies were received.

4th step: The results from the 9 replies seemed to indicate that the questionnaire was ready for distribution to the members of the cancellation group. To make certain that there were no ambiguities in the questionnaire it was submitted to a jury of 7 professors at Michigan State College and to the Assistant Superintendent of Public Instruction of the State of Michigan. A few minor changes were suggested and the alterations made.

5th step: The questionnaire⁵ was mimeographed and sent with a letter of explanation⁶ and self addressed stamped envelope to all 158 members of the cancellation group on March 1, 1951. Within two weeks 72 questionnaires had been completed and returned.

6th step: On March 15, 86 one-cent postal cards were sent to those who had not returned the completed form.⁷

³For copy of the letter see Appendix K.

⁴For copy of the questionnaire see Appendix L.

⁵For copy of the questionnaire see Appendix M.

⁶For copy of the letter see Appendix N.

⁷For copy of the postal card message see Appendix O.

7th step: Between March 15 and March 29 the writer received 39 additional completed forms. On the latter date he sent postal cards again to 20 individuals who had not returned to study at Michigan State College and made 24 telephone calls to students living on or in the vicinity of the campus.

By April 8, 1951, the writer had received 125 usable replies out of 158 questionnaires sent. This constitutes a return of 79.1 per cent on the questionnaires sent to those students who did not renew their scholarships.

Four of the replies were not usable. One mother wrote that her son was in the army, one informed the writer that her daughter had passed away during the summer, one girl told the writer over the telephone that she was "most unwilling to co-operate," and one mother wrote that her son did not lose his scholarship but left Michigan State College because of a misunderstanding with the football coach. However the College Record Office reveals evidence that her son had a 1.1 average in high school, was recommended to be admitted to college by examination, was expected to do inferior work in the opinion of his high school principal, and finished the freshman year with $46\frac{1}{2}$ credits and $49\frac{1}{2}$ honor points for an average of 1.1 honor points per credit hour. His scholarship was not renewed.

The questionnaire was not sent to the members of the withdrawal group because of their irregular periods of attendance at Michigan State College. These students would be unable to answer many of the questions on the questionnaire and since the information would be incomplete it was considered inadvisable to send the questionnaire. With a few minor changes, however, it was applicable to the members of the renewal group and the regular group.

On April 9, 1951, Form 2 of the questionnaire⁸ was sent to the 169 members of the renewal group who had returned to the campus for further study. It was felt that those who had not returned to make use of their awards were probably in the armed forces and couldn't be reached easily. However, the 169 constitute 87 per cent of the entire group, so the questionnaire reached seven-eighths of the members of this group.

The percentage of questionnaires returned is directly proportional to the type of individual receiving them. The writer sent 169 questionnaires to the students of the renewal group and received 153 replies. This constitutes a return of 90.5 per cent and was accomplished without any kind of follow-up whatsoever. This may be another indication of the favorable type of individual the

⁸See Appendix P.

renewal scholarship student really is. Of the 200 regular students whose records are studied in the investigation, only 139, or 69.5 per cent, returned to the campus to study the next year. On April 23, 1951, the questionnaire,⁹ with minor changes, was mailed to 136 students and from them only 77 replies were received. This constitutes 56.6 per cent and is about what is expected statistically from any type of survey.

TABLE XLV
RETURNS RECEIVED ON QUESTIONNAIRES

| Group | Number sent | Number returned | Per cent returned |
|--------------|-------------|-----------------|-------------------|
| Cancellation | 158 | 125 | 79.1 |
| Renewal | 169 | 153 | 90.5 |
| Regular | 136 | 77 | 56.6 |
| Total | 463 | 355 | 76.7 |

The over-all average of 76 per cent return on the questionnaire appears to be highly satisfactory.

The remainder of this part of the study will be devoted to an analysis of the questions and the replies to the questions by the members of the various groups. Inasmuch

⁹ See Appendix Q.

as both the questions and the distribution of the replies to the questions must be recorded in this section of the study it appears advisable to combine both into tabular form. Therefore, each title of the following tables will be in question form.

TABLE XLVI

QUESTION 1. WAS THE TOTAL PROGRAM OF YOUR HIGH SCHOOL SUFFICIENT TO PREPARE ONE FOR COLLEGE?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 71 | 56.8 | 54 | 43.2 |
| Renewal | 153 | 120 | 78.4 | 33 | 21.6 |
| Regular | 77 | 46 | 59.7 | 31 | 40.3 |
| All groups | 355 | 237 | 66.8 | 118 | 33.2 |

Though 56 per cent of the cancellation students were satisfied with their high school program of studies we find that the t test gives us a value of $t = 3.93$ and definitely proves that there is significant difference between the cancellation and renewal groups in this category.

TABLE XLVII

QUESTION 2. DO YOU FEEL THAT YOU, PERSONALLY, WERE PREPARED TO COPE WITH THE DEMANDS MADE ON COLLEGE FRESHMEN?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|----|----------|
| Cancellation | 125 | 80 | 64.0 | 44 | 35.2 |
| Renewal | 153 | 138 | 90.2 | 15 | 9.8 |
| Regular | 77 | 55 | 71.4 | 22 | 28.6 |
| All groups | 355 | 273 | 76.9 | 81 | 22.8 |

There is significant difference between the cancellation group and the renewal group at the one per cent level, for we obtain a t value of 5.24. There is significant difference between the renewal and the regular groups for we obtain a t value of 3.36. But there is no difference between the cancellation and the regular groups for we obtain a t value of 1.12 which is not significant. It appears that over 90 per cent of those who renewed their scholarships felt prepared to meet the responsibilities and the demands made on college freshmen, while only 64 per cent of those whose scholarships were cancelled felt that they were prepared to do likewise.

TABLE XLVIII

QUESTION 3. DO YOU THINK THAT YOU WERE PREPARED TO MEET
THE ACADEMIC DEMANDS MADE ON COLLEGE FRESHMEN?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|----|----------|
| Cancellation | 125 | 95 | 76.0 | 30 | 24.0 |
| Renewal | 153 | 142 | 92.8 | 11 | 7.2 |
| Regular | 77 | 57 | 74.0 | 20 | 26.0 |
| All groups | 355 | 294 | 84.8 | 61 | 15.2 |

This question is similar to the preceding one but stresses the preparation to meet the class-room demands of their college classes. Ninety-two per cent of the renewal students felt that they were prepared to do the work required of them in college and only 76% of the cancellation students were confident to do the same. Statistically there is significant difference between the two groups for we obtain a t value of 3.11. It is interesting to note that over 84 per cent of the entire group interviewed felt that they were prepared to carry out the academic demands of their college program.

TABLE XLIX

QUESTION 4. WAS THE SIZE OF YOUR SCHOOL A HANDICAP
TO YOUR ACADEMIC ACHIEVEMENT AS A COLLEGE STUDENT?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 47 | 37.6 | 78 | 62.4 |
| Renewal | 153 | 24 | 15.7 | 129 | 84.3 |
| Regular | 77 | 16 | 20.8 | 61 | 79.2 |
| All groups | 355 | 87 | 24.5 | 268 | 75.5 |

Thirty-seven per cent of the cancellation students felt that the size of their school was a handicap to them. All 87 who answered this question in the affirmative stated that their high school was too small. It was shown in Chapter V that 51 per cent of the cancellation group came from Class C and Class D high schools. The t test of significance gives a t value of 4.06 and reveals significant difference between the cancellation and the renewal groups.

TABLE L

QUESTION 5. DID YOU RECEIVE ADEQUATE EDUCATIONAL GUIDANCE IN HIGH SCHOOL?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 74 | 59.2 | 49 | 39.2 |
| Renewal | 153 | 102 | 66.7 | 48 | 31.2 |
| Regular | 77 | 46 | 59.7 | 31 | 40.3 |
| All groups | 355 | 222 | 62.5 | 128 | 37.5 |

There is no significant difference between the cancellation and renewal groups. We obtain a t value of 1.34 which is not significant. Only 39 per cent of the cancellation students said that they did not receive adequate educational guidance in high school against a percentage of 31 for the renewal students. In the over-all group we find that 37.5 per cent of the students did not receive adequate educational guidance in high school. This means 3 out of every 8 students involved were not satisfied with their high school guidance program.

TABLE LI

QUESTION 6. IN WHAT AREAS DO YOU CONSIDER YOUR
HIGH SCHOOL PROGRAM STRONG?

| Area | Number of times mentioned by the | | | |
|---------------------------|----------------------------------|------------------|------------------|----------------|
| | Cancel- lation group | Renewal group | Regular group | Total group |
| Mathematics | 36 | 47 | 24 | 107 |
| English | 24 | 44 | 22 | 90 |
| Science | 26 | 36 | 12 | 74 |
| College Preparatory | 8 | 32 | 5 | 45 |
| Social Science | 9 | 14 | 3 | 26 |
| History | 13 | 7 | 5 | 25 |
| Commercial | 12 | 7 | 6 | 25 |
| Ex-Class Activity | 5 | 8 | 4 | 17 |
| Home Economics | 10 | 2 | 2 | 14 |
| Literature | 3 | 5 | 4 | 12 |
| Language | 4 | 4 | 3 | 11 |
| Chemistry | 2 | 5 | 3 | 10 |
| Physical Education | 7 | 0 | 2 | 9 |
| Guidance | 1 | 3 | 4 | 8 |
| Speech | 1 | 2 | 4 | 7 |
| Agriculture | 2 | 3 | 1 | 6 |
| Vocational | 2 | 3 | 0 | 6 |
| Music | 1 | 4 | 1 | 6 |
| None | 1 | 1 | 4 | 6 |
| Good teachers | 1 | 3 | 1 | 5 |
| Biology | 2 | 2 | 0 | 4 |
| Good variety | 1 | 2 | 1 | 4 |
| Physics | 3 | 0 | 0 | 3 |
| General Courses | 0 | 2 | 0 | 2 |
| Miscellaneous (1 each) | 6 | 9 | 6 | 21 |

This table reveals that Mathematics, English, Science, and the College Preparatory subjects generally were considered by the scholarship students to be the strongest in their respective high schools. A look at the next tabulation reveals that these same subjects were listed as

being the weakest in the high school program, too. One of the implications which can be drawn from these data is the fact that students still judge a school program in terms of the basic academic subjects: namely, Mathematics, English, and Science. Then, too, these subjects enroll a very high percentage of the entire high school population and so should receive a large amount of commendation and criticism.

TABLE LII

QUESTION 7. IN WHAT AREAS DO YOU CONSIDER YOUR
SCHOOL PROGRAM WEAK?

| Area | Number of times mentioned by | | | |
|---------------------------|------------------------------|------------------|------------------|----------------|
| | Cancel- lation group | Renewal group | Regular group | Total group |
| English | 30 | 22 | 14 | 66 |
| Science | 14 | 14 | 10 | 38 |
| Mathematics | 14 | 11 | 11 | 36 |
| History | 13 | 10 | 7 | 30 |
| Social Science | 11 | 14 | 3 | 28 |
| Speech | 8 | 12 | 4 | 24 |
| Guidance | 8 | 14 | 1 | 23 |
| Language | 7 | 13 | 1 | 21 |
| How to Study | 8 | 6 | 2 | 16 |
| None | 3 | 8 | 2 | 13 |
| Chemistry | 6 | 3 | 3 | 12 |
| Literature | 3 | 3 | 3 | 9 |
| Manual Training | 3 | 4 | 1 | 8 |
| College Prep. | 2 | 0 | 6 | 8 |
| Physical Educ. | 3 | 2 | 2 | 7 |
| Commercial | 2 | 0 | 4 | 6 |
| Responsibility | 2 | 2 | 1 | 5 |
| Limited Curric. | 2 | 1 | 2 | 5 |
| Grammar | 0 | 3 | 2 | 5 |
| Home Economics | 2 | 1 | 1 | 4 |
| Teaching | 0 | 3 | 1 | 4 |
| School Adminis. | 0 | 4 | 0 | 4 |
| Art | 1 | 1 | 2 | 4 |
| Testing Program | 1 | 0 | 3 | 4 |
| Too easy | 3 | 0 | 1 | 4 |
| All | 2 | 1 | 0 | 3 |
| How to read | 1 | 2 | 0 | 3 |
| Physics | 0 | 2 | 0 | 2 |
| How to think | 0 | 2 | 0 | 2 |
| Soc'l Activity | 2 | 0 | 0 | 2 |
| Spelling | 0 | 0 | 2 | 2 |
| Miscellaneous (1 each) | 3 | 8 | 3 | 14 |

1

TABLE LIII

QUESTION 8. WHAT ADVICE CAN YOU GIVE TO THIS YEAR'S SCHOLARSHIP GROUP WHICH MIGHT ENABLE THEM TO EARN A RENEWAL OF THE SCHOLARSHIP AWARD? (CANCELLATION GROUP)

| Suggestions | Number of times mentioned |
|---|---------------------------|
| Establish effective means of study | 29 |
| Set up a daily study schedule | 12 |
| Take an easy schedule the first year | 6 |
| Seek help from instructors | 5 |
| Prepare thoroughly for the exams | 4 |
| Take only a few basics the first year | 4 |
| Try to adjust quickly | 4 |
| Take the right courses | 4 |
| Start studying early in the year | 3 |
| Realize that you are "on your own" | 3 |
| Don't worry about your studies | 3 |
| Try to concentrate when studying | 3 |
| Take only a few extra-class activities | 2 |
| Put forth an extra effort | 2 |
| Make use of the college library | 2 |
| Have properly balanced social life | 2 |
| Remain on campus week-ends | 2 |
| Do some outside reading | 1 |
| Stay "loose" | 1 |
| Study with others | 1 |
| Take lots of Math. in high school | 1 |
| Have seriousness of purpose | 1 |
| Know that success is an individual matter | 1 |
| Improve your ability to read | 1 |

An analysis of these remarks reveals that the major suggestion is in regard to the student's study program. Most of these students realized the importance of an effective program of study and offer as their best advice to other students the establishment of an effective program of study.

TABLE LIV

QUESTION 8. WHAT ADVICE CAN YOU GIVE TO THIS YEAR'S
SCHOLARSHIP GROUP WHICH MIGHT ENABLE THEM TO EARN A
RENEWAL OF THE SCHOLARSHIP AWARD? (RENEWAL GROUP)

| Suggestions | Number of times mentioned |
|---|---------------------------|
| <hr/> | |
| Keep your assignments up to date | 43 |
| Study hard | 28 |
| Don't cut classes | 11 |
| Be interested in your class work | 11 |
| Balance your class and extra-class activities | 11 |
| Establish good study habits | 10 |
| Learn how to study | 8 |
| Bear down the first year | 6 |
| Work to your full capacity | 6 |
| Don't worry | 6 |
| Take good notes in class | 5 |
| Take few extra-class activities | 5 |
| Take advantage of all college services | 5 |
| Work hard on the comps | 5 |
| Try to adjust quickly | 4 |
| Budget your time properly | 4 |
| Learn to relax | 3 |
| Speed up on your reading | 2 |
| Make it your duty to earn a renewal | 2 |
| Study courses as a whole | 2 |
| Grow up and try to be serious | 2 |
| Be busy all the time | 2 |
| Keep above the 1.6 average | 1 |
| Aim high | 1 |
| Don't do outside employment. | 1 |
| Study 3 hours weekly per credit | 1 |
| Study at the library | 1 |
| Live on the campus | 1 |
| Take easy schedule the first year | 1 |
| Take few basics the first year | 1 |
| Try to get the general concepts | 1 |
| Don't cram | 1 |
| Realize that learning is an individual matter | 1 |

The students in the renewal group realize the importance of keeping up to date on required work and make this their primary suggestion to students studying on scholarships. Forty-three students stressed the importance of doing the tasks when they are assigned. The other suggestions high on their list were: to study hard, to attend classes regularly, and to establish good study habits. These are commendable suggestions.

TABLE LV

QUESTION 9. DID THE COLLEGE TAKE ADEQUATE STEPS
TO PROPERLY ORIENT YOU TO COLLEGE LIFE?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|----|----------|
| Cancellation | 125 | 91 | 72.8 | 32 | 25.6 |
| Renewal | 153 | 120 | 78.4 | 30 | 19.6 |
| Regular | 77 | 62 | 80.5 | 14 | 18.2 |
| All groups | 355 | 273 | 76.9 | 76 | 21.4 |

The t test for significance between the cancellation and renewal groups gives a value of 1.12 which shows that there is no difference between those groups. It appears that over 70 per cent of each group were satisfied with the college orientation program.

TABLE LVI

QUESTION 10. WERE YOU PROPERLY ENROLLED WITH RESPECT TO VARIETY OF COURSES, SCHEDULE OF CLASSES, ETC.?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|----|----------|
| Cancellation | 125 | 89 | 71.2 | 35 | 28.0 |
| Renewal | 153 | 132 | 86.3 | 21 | 13.7 |
| Regular | 77 | 64 | 83.1 | 12 | 15.6 |
| All groups | 355 | 285 | 80.3 | 78 | 19.1 |

Though 71 per cent of the cancellation students felt that they were properly enrolled, we find that 86 per cent of the renewal students were satisfied in this respect. There is significant difference between the groups for we obtain a t value of 3.08 which is significant at the one per cent level. Of the total group, 80 per cent stated that they were properly enrolled.

Those students who were not satisfied with the enrollment procedures were asked to state what was wrong. These remarks are tallied in the following table. The cancellation students said that their load was too heavy and the renewal students stated that they thought the enrollment officers lacked the proper information for enrollment purposes.



TABLE LVII

QUESTION 11. IF YOU WERE NOT PROPERLY ENROLLED WITH
RESPECT TO VARIETY OF COURSES, SCHEDULE OF CLASSES,
ETC., WHAT WAS WRONG?

| Comments | Number of times mentioned | | |
|---|---------------------------|---------------|---------------|
| | Can. Group | Ren. Group | Reg. Group |
| Load too heavy | 6 | 1 | 1 |
| Enrollment officers lacked the necessary information | 0 | 6 | 1 |
| Lack of personal interest | 3 | 2 | 1 |
| Enrolled in wrong courses | 3 | 2 | 1 |
| Too many hours in classes | 5 | 2 | 2 |
| Wrong type of counselor | 4 | 1 | 0 |
| Enrolled in 4 basics | 3 | 1 | 1 |
| Difficulties with registration | 0 | 3 | 2 |
| Improperly advised | 1 | 0 | 3 |
| Given wrong major | 2 | 2 | 0 |
| Given wrong schedule | 1 | 1 | 1 |
| Too light a load | 1 | 1 | 0 |
| Too big a spread in locations | 1 | 0 | 0 |
| Schedule too tough | 2 | 0 | 0 |
| Too much free time | 1 | 0 | 0 |
| Hurried through registration | 0 | 0 | 1 |
| No variety of subjects | 1 | 0 | 0 |
| No time left for Frosh basketball | 1 | 0 | 0 |

As was pointed out previously, over 80 per cent of the group studied were satisfied with the enrollment procedures. Therefore, the statistics presented in the previous table are too meager for any conclusive evidence. These statistics are given here because they should be of value to the enrollment officers of Michigan State and other colleges. The evidence also proves that the students are well satisfied with the enrollment procedures.

TABLE LVIII

QUESTION 12. WAS CLASS SIZE IN COLLEGE ANY HANDICAP
TO YOU? AND IF SO, WHAT SIZE OF CLASS?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 28 | 22.4 | 96 | 76.8 |
| Renewal | 153 | 29 | 19.0 | 124 | 81.0 |
| Regular | 77 | 11 | 14.3 | 65 | 84.4 |
| All groups | 355 | 68 | 19.2 | 285 | 80.3 |

The t test between any two groups reveals no significant differences. The cancellation students were not handicapped by the size of class in which they were enrolled. Of those who answered yes, 13 of the cancellation students, 17 of the renewal students, and 8 of the regular students merely said that large classes were a handicap. Of the remaining 30 responses, 5 students said that classes over 30 were a handicap, 7 students said that classes over 50 were a handicap, and 4 students said that classes with more than 100 students were a handicap.

TABLE LIX

QUESTION 13. WERE YOU SATISFIED WITH THE REGULATION
REGARDING THE COMPREHENSIVE EXAMINATIONS AND
SUBSEQUENT MARKS IN THE BASICS?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 51 | 40.8 | 73 | 58.4 |
| Renewal | 153 | 93 | 60.8 | 59 | 38.6 |
| Regular | 77 | 42 | 54.5 | 34 | 44.2 |
| All groups | 355 | 186 | 52.4 | 166 | 46.8 |

There is significant difference between the cancellation and the renewal groups, for we obtain a t value of 3.45. It appears that only 41 per cent of the cancellation students are satisfied with the basic comprehensive system against a percentage of 61 for the renewal group. This dissatisfaction with the basic marking system might be a contributing cause of poor work in those subjects.

Those who do criticize the system state that it is unfair to base 9 credits of work on just one examination. They feel that too much weight is placed on the final examination and no credit given at all for the marks which students earn at the ends of the separate terms. In this way they state that the system is unfair. Their remarks are summarized in Table LX which follows.

TABLE LX

QUESTION 14. IF NOT SATISFIED, WHAT WAS WRONG?

| Comments | Number of times mentioned | | |
|------------------------------------|---------------------------|---------------|---------------|
| | Can. Group | Ren. Group | Reg. Group |
| Too much weight on one examination | 30 | 20 | 13 |
| Unfair | 5 | 6 | 9 |
| Comps not related to class work | 4 | 9 | 3 |
| Whole marking system | 14 | 9 | 8 |
| Can't prepare for the comps | 6 | 2 | 3 |
| The courses are poor | 4 | 4 | 3 |
| Physical surroundings are bad | 2 | 1 | 0 |
| General attitude is bad | 4 | 0 | 2 |
| Big gamble re marks | 2 | 2 | 0 |

TABLE LXI

QUESTION 15. FOR HOW LONG A TIME HAD YOU BEEN PLANNING TO ATTEND COLLEGE?

| Group | Periods of preparation | | | | | | |
|--------------|------------------------|-------|-------|------|------|------|------|
| | 6 yrs | 4 yrs | 2 yrs | 1 yr | 6 mo | 3 mo | 1 mo |
| Cancellation | 32 | 37 | 20 | 16 | 14 | 5 | 2 |
| Renewal | 64 | 58 | 10 | 6 | 11 | 3 | 1 |
| Regular | 28 | 27 | 7 | 11 | 0 | 3 | 0 |
| All groups | 124 | 122 | 37 | 33 | 25 | 11 | 3 |

It appears inadvisable to find averages for the various groups in view of the unequal intervals of time. It is sufficient to say that the members of the renewal group had been preparing for their college careers for a much longer time than the cancellation students were. Only 69 of the cancellation students had been preparing for college for at least 4 years while among the renewal group there were 122 out of 153 who knew all during their high school years that they were going to college some day.

TABLE LXII

QUESTION 16. DID YOUR PARENTS HELP YOU PLAN
YOUR HIGH SCHOOL EDUCATIONAL PROGRAM?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 46 | 36.8 | 79 | 63.2 |
| Renewal | 153 | 58 | 37.9 | 95 | 62.1 |
| Regular | 77 | 37 | 48.1 | 39 | 50.6 |
| All groups | 355 | 141 | 39.7 | 312 | 60.0 |

The t test shows no significant difference between any two of the groups.

TABLE LXIII

QUESTION 17. ARE YOUR PARENTS IN FAVOR OF
YOUR ATTENDING COLLEGE?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|----|----------|
| Cancellation | 125 | 122 | 97.6 | 3 | 2.4 |
| Renewal | 153 | 151 | 98.7 | 2 | 1.3 |
| Regular | 77 | 76 | 98.7 | 0 | 0.0 |

The t test shows no significant difference between any two of the groups.

TABLE LXIV

QUESTION 18. IS YOUR FATHER A COLLEGE GRADUATE?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 27 | 21.6 | 97 | 77.6 |
| Renewal | 153 | 46 | 30.1 | 107 | 69.9 |
| Regular | 77 | 25 | 32.5 | 51 | 66.2 |
| All groups | 355 | 98 | 27.6 | 255 | 71.8 |

The t test shows no significant difference between any two of the groups.

TABLE LXV

QUESTION 19. IS YOUR MOTHER A COLLEGE GRADUATE?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 32 | 25.6 | 93 | 74.4 |
| Renewal | 153 | 38 | 24.8 | 115 | 75.2 |
| Regular | 77 | 18 | 23.4 | 58 | 75.3 |
| All groups | 355 | 88 | 24.8 | 266 | 74.9 |

The t test shows no significant difference between any two of the groups.

TABLE LXVI

QUESTION 20. DID YOU HAVE A REGULAR STUDY PROGRAM LAST YEAR?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 27 | 21.6 | 98 | 78.4 |
| Renewal | 153 | 54 | 35.3 | 99 | 64.7 |
| Regular | 77 | 26 | 33.8 | 50 | 64.9 |
| All groups | 355 | 107 | 30.1 | 247 | 69.6 |

Only 21 per cent of the cancellation students had a regular study program during their freshman year. The t test shows significant difference between the cancellation and the renewal groups at the 5 per cent level. It is observed that 35 per cent of the renewal students maintained

a study schedule as freshmen. This fact has been expressed as a strong contributing factor both for the success of the renewal students and for the lack of success on the part of the cancellation students. Both groups state that new students should certainly set up a program for study and stick to it if they wish to renew their scholarships.

TABLE LXVII

QUESTION 21. DID YOU MAKE USE OF THE COLLEGE COUNSELING SERVICE LAST YEAR?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 39 | 31.2 | 86 | 68.8 |
| Renewal | 153 | 64 | 41.8 | 89 | 58.2 |
| Regular | 77 | 30 | 39.1 | 46 | 59.7 |
| All groups | 355 | 133 | 37.5 | 221 | 62.3 |

The t test shows no significant difference between any two of the groups. It is interesting to note that the scholarship students did not make much use of the counseling service at the college during their freshman year. Only 31 per cent of the cancellation students made use of this service while almost 42 per cent of the renewal students used the service. Of the entire group surveyed we find that 37.5 per cent, or 3 out of 8 students, made use of the counseling service at the college. The distribution which follows shows the uses which students made of the service.

TABLE LXVIII

QUESTION 22. IF YOU MADE USE OF THE COUNSELING
SERVICE, FOR WHAT PURPOSE?

| Reason for using service | Frequencies by groups | | |
|-----------------------------------|-----------------------|------|------|
| | Can. | Ren. | Reg. |
| To take aptitude tests | 11 | 15 | 9 |
| To discuss selection of a major | 5 | 17 | 2 |
| To change major | 4 | 11 | 4 |
| For needed guidance | 4 | 8 | 3 |
| For adjustment purposes | 2 | 3 | 0 |
| To discuss credits | 1 | 3 | 0 |
| To select courses | 4 | 3 | 2 |
| To check courses | 3 | 0 | 3 |
| To discuss marks | 2 | 1 | 1 |
| For information | 0 | 1 | 2 |
| For personal help | 0 | 1 | 2 |
| To discuss speech difficulty | 0 | 1 | 0 |
| To discuss veteran's problem | 0 | 0 | 1 |
| To try to vary program of studies | 0 | 1 | 0 |
| "Had no luck at all" | 1 | 0 | 0 |

TABLE LXIX

QUESTION 23. HOW MUCH TIME DID YOU SPEND STUDYING
DURING THE DAYTIME LAST YEAR?

| Group | Replies | Frequencies by hours | | | | | | | $\sigma_{\bar{x}}$ |
|--------------|---------|----------------------|----|-----|----|----|----|---------|--------------------|
| | | 0 | 1 | 2 | 3 | 4 | 5+ | Avg hrs | |
| Cancellation | 125 | 11 | 20 | 48 | 29 | 13 | 4 | 2.2 | .11 |
| Renewal | 153 | 13 | 48 | 56 | 26 | 6 | 3 | 1.8 | .09 |
| Regular | 77 | 5 | 17 | 27 | 16 | 9 | 1 | 2.1 | — |
| All groups | 355 | 29 | 85 | 131 | 71 | 28 | 8 | 2.0 | — |

The statistics reveal that the average amount of time spent studying during the daytime was 2 hours for the entire group. The t test shows that there is no significant difference between the cancellation and renewal groups for we obtain a t value of $-.4$. It is assumed because the averages are so near alike that all three samples come from the same parent population.

TABLE LXX

QUESTION 24. HOW MUCH TIME DID YOU SPEND PER WEEK
STUDYING IN THE COLLEGE LIBRARY?

| Group | Replies | Frequencies of hours | | | | | | | |
|--------------|---------|----------------------|----|----|----|-----|-----|----|-----|
| | | 0 | 1 | 2 | 3 | 4-5 | 6-7 | 8+ | Avg |
| Cancellation | 125 | 28 | 26 | 22 | 23 | 17 | 5 | 3 | 2.2 |
| Renewal | 153 | 42 | 34 | 32 | 20 | 14 | 3 | 6 | 1.9 |
| Regular | 77 | 20 | 15 | 15 | 12 | 9 | 3 | 2 | 2.0 |
| All groups | 355 | 90 | 75 | 69 | 55 | 40 | 11 | 11 | 2.0 |

The interesting statistic obtained from this question reveals that these freshmen students whose records are studied in this investigation spent on the average of 2 hours studying in the library per week. The t test shows no significant differences between any two of the groups.

TABLE LXXI

QUESTION 25. WAS THERE ANY CLASS OR COURSE WHICH YOU LET SLIDE BECAUSE OF LACK OF INTEREST (a) IN THE SUBJECT? (b) IN THE INSTRUCTOR? (c) OR BECAUSE OF POOR INSTRUCTION?

| Group | (a) | | (b) | | (c) | |
|------------|------------|-----|-----------|-----|-----------|-----|
| | Yes | No | Yes | No | Yes | No |
| Cancell. | 80 or 71%* | 33 | 64 or 61% | 40 | 81 or 76% | 26 |
| Renewal | 77 or 54% | 65 | 78 or 43% | 78 | 65 or 48% | 71 |
| Regular | 55 or 77% | 16 | 33 or 53% | 29 | 36 or 58% | 26 |
| All groups | 212 | 114 | 157 | 147 | 182 | 123 |

*Percentages are based on total replies to the question.

The majority of these students answered in the affirmative in 7 of the 9 categories. In the total group picture we find that in all three instances the students were inattentive to their college work because of lack of interest and because of faulty instruction in some particular class.

TABLE LXXII

QUESTION 26. WERE YOUR ABSENCES FROM COLLEGE CLASSES EXCESSIVE, MODERATE, OR INFREQUENT?

| Group | Replies | Excessive | Moderate | Infrequent |
|--------------|---------|-----------|----------|------------|
| Cancellation | 125 | 3 | 32 | 90 |
| Renewal | 153 | 4 | 44 | 105 |
| Regular | 77 | 1 | 25 | 49 |
| All groups | 355 | 8 | 101 | 244 |

From these data it seems safe to conclude that absences from classes did not contribute to the cancellation of scholarships.

TABLE LXXIII

QUESTION 27. HOW MANY TIMES PER TERM DID YOU SPEND THE WEEK-END AWAY FROM YOUR REGULAR PLACE OF RESIDENCE?

| Group | Replies | Frequency of number of times | | | | | | | | | | | |
|--------------|---------|------------------------------|----|----|----|----|----|----|---|---|---|----|----|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 |
| Cancellation | 125 | 16 | 9 | 26 | 29 | 21 | 5 | 9 | 1 | 1 | 1 | 2 | 4 |
| Renewal | 153 | 14 | 22 | 35 | 45 | 15 | 8 | 5 | 0 | 1 | 3 | 4 | 0 |
| Regular | 77 | 7 | 8 | 7 | 19 | 16 | 10 | 2 | 2 | 1 | 3 | 0 | 0 |
| All groups | 355 | 37 | 39 | 68 | 83 | 52 | 23 | 16 | 3 | 3 | 7 | 6 | 4 |

The averages in the respective groups are 3.22, 2.82, and 3.30 with a mode of 3 times per term for each of the three groups. The variances (σ^2) for the three groups are respectively 6.7, 3.6, and 4.2 with standard deviations of 2.6, 1.9, and 2.1. The t test of significance shows no significant differences between any two of the groups.

TABLE LXXIV

QUESTION 28. DID THE SUBJECTS TAKEN IN YOUR FRESHMAN YEAR CONTRIBUTE TO THE ATTAINMENT OF YOUR PLANS?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|----|----------|
| Cancellation | 125 | 69 | 55.2 | 55 | 44.0 |
| Regular | 77 | 43 | 55.8 | 26 | 33.8 |

This question was not included on the questionnaire to the renewal students for it was felt that they would be quite well satisfied with their academic program. It appears from these data, that the cancellation and the regular students were satisfied, too. The t test reveals no significant difference between these two groups.

TABLE LXXV

QUESTION 29 (a). IN WHAT PARTICULAR AREA COULD YOUR CAMPUS LIFE HAVE BEEN IMPROVED BY YOURSELF?

| Suggestion | Number of times mentioned by | | |
|------------------------------------|------------------------------|---------|---------|
| | Can. Gp | Ren. Gp | Reg. Gp |
| Having more social activity | 25 | 62 | 26 |
| Having more <u>organized</u> study | 16 | 15 | 7 |
| By studying more | 16 | 11 | 10 |
| By living on the campus | 6 | 2 | 2 |
| By showing more interest | 6 | 4 | 2 |
| Better self discipline | 4 | 3 | 1 |
| By wiser use of time | 5 | 9 | 3 |
| Doing more outside reading | 1 | 3 | 2 |
| By taking easier subjects | 1 | 1 | 1 |
| By developing my memory | 1 | 2 | 3 |
| By adjusting quicker | 3 | 6 | 0 |
| By joining religious group | 0 | 3 | 0 |
| By establishing goals | 0 | 3 | 0 |
| By living my own philosophy | 0 | 0 | 7 |

TABLE LXXVI

QUESTION 29 (b). IN WHAT PARTICULAR AREA COULD YOUR
CAMPUS LIFE HAVE BEEN IMPROVED BY THE COLLEGE?

| Suggestion | Number of times mentioned by | | |
|---------------------------------|------------------------------|---------|---------|
| | Can. Gp | Ren. Gp | Reg. Gp |
| Stress the individual | 6 | 3 | 3 |
| Change the comp system | 5 | 1 | 1 |
| Improve the basic courses | 4 | 3 | 4 |
| Decrease the social activities | 3 | 2 | 1 |
| Obtain better instructors | 4 | 8 | 2 |
| Demand more from students | 3 | 2 | 1 |
| More social life | 3 | 2 | 2 |
| Course in "How to Study" | 2 | 4 | 1 |
| Better living conditions | 2 | 4 | 1 |
| Improve counseling service | 0 | 4 | 2 |
| Decrease amount of homework | 1 | 2 | 2 |
| Have smaller classes | 0 | 4 | 1 |
| More intra-mural sports | 1 | 4 | 0 |
| Teach broad educational aspects | 1 | 2 | 1 |

TABLE LXXVII

QUESTION 29 (c). IN WHAT PARTICULAR AREA COULD YOUR
CAMPUS LIFE HAVE BEEN IMPROVED BY THE HIGH SCHOOL?

| Suggestion | Number of times mentioned by | | |
|--|------------------------------|----------|----------|
| | Can. Grp | Ren. Grp | Reg. Grp |
| Better preparation for college | 14 | 2 | 6 |
| Prepare students for transition | 11 | 4 | 5 |
| Offer harder program | 6 | 5 | 0 |
| Have better instructors | 5 | 0 | 0 |
| Teach students how to study | 5 | 7 | 3 |
| Teach students how to take tests | 4 | 0 | 0 |
| Teach students how to take notes | 3 | 3 | 2 |
| Teach students how to read | 2 | 2 | 1 |
| Present more creative work | 1 | 2 | 1 |
| Require more themes | 2 | 1 | 3 |
| Teach students to face issues | 2 | 0 | 2 |
| Give speech training | 1 | 4 | 0 |
| Better vocational guidance | 0 | 6 | 3 |
| Improve all courses | 0 | 5 | 1 |
| Teach students how to meet people | 0 | 2 | 1 |
| Eliminate cliques, if possible | 0 | 2 | 0 |
| Teach students how to adjust to college | 0 | 3 | 3 |
| Better extra-class activities | 0 | 4 | 0 |
| Require mathematics | 0 | 0 | 2 |

The tabulation of the answers to question 29 is self-explanatory but it is interesting to note that the suggestion mentioned most frequently by the students themselves which could have improved their campus life was to have more social activities. Sixty-two of the renewal group made this suggestion but in the question which followed, only 42 per cent stated that their combined suggestions, if they had been carried out, would have improved their marks.

The second ranking suggestion made by the students was related to their study programs. Many suggested more time devoted to study and the development of more effective means of study. If these suggestions had been carried out during the year, 73.6 per cent of the cancellation students claim that their marks would have been improved and 60.6 per cent of the regulars made the same claim. The t test reveals a significant difference between the renewal group and each of the other groups.

The suggestions which are made for the improvement of the high school program are diversified but the cancellation students suggest better preparation for college in the way of better courses, better instruction, and better preparation of students for the transition from high school to college. They also stress the importance of knowing how to study, how to take tests, how to take notes, and how to read effectively.

TABLE LXXVIII

QUESTION 30. DO YOU THINK THIS IMPROVEMENT WOULD
HAVE RAISED YOUR MARKS?

| Group | Replies | Yes | Per cent | No | Per cent |
|--------------|---------|-----|----------|-----|----------|
| Cancellation | 125 | 92 | 73.6 | 16 | 12.8 |
| Renewal | 153 | 65 | 42.5 | 62 | 40.5 |
| Regular | 77 | 45 | 60.6 | 23 | 29.9 |
| All groups | 355 | 202 | 56.9 | 101 | 28.5 |

The t test shows a significant difference between the cancellation group and each of the other two groups. It is significant to note that many of these students who indicated one or more suggestions were hesitant to state whether this improvement would alter the final academic achievement. Only 28.5 per cent of the total were of the opinion that it wouldn't make any difference at all.

The next question is similar to question 29 but it stresses the improvement which the students could have made along academic lines. The comment made most often was that they could have studied more and could have established more effective study habits. The other suggestions were very diversified and were mentioned infrequently.

TABLE LXXIX

QUESTION 31. WHAT MORE COULD YOU HAVE DONE DURING THE YEAR TO FURTHER YOUR OWN ACADEMIC ACHIEVEMENT?

| Suggestion | Number of times mentioned by | |
|---------------------------------|------------------------------|---------|
| | Can. Gp | Reg. Gp |
| Study more | 38 | 29 |
| Establish better study habits | 15 | 11 |
| Have more interest in classes | 8 | 5 |
| Use tutoring service | 5 | 2 |
| Decrease social life | 7 | 3 |
| Do more outside reading | 3 | 2 |
| Be less confident | 2 | 2 |
| Quit athletics | 2 | 1 |
| Make use of the library | 3 | 1 |
| Enroll in the right courses | 4 | 2 |
| Live away from home | 2 | 2 |
| Participate in class discussion | 3 | 1 |
| Study more with others | 3 | 2 |
| Take lighter load | 1 | 2 |
| Stay on campus week ends | 2 | 2 |

TABLE LXXX

QUESTION 32. DID YOU SEEK HELP FROM YOUR INSTRUCTORS REGARDING YOUR WORK IN COLLEGE LAST YEAR?

| Group | Number of times mentioned | | |
|--------------|---------------------------|--------------|-------|
| | Frequently | Infrequently | Never |
| Cancellation | 17 | 82 | 35 |
| Renewal | 18 | 40 | 95 |
| Regular | 9 | 55 | 11 |

It appears that 141 out of the total group for a percentage of 40 per cent did not consult their instructors at all for help regarding their class work. Ninety-five

of the students who earned a renewal never solicited help from their instructors. There were 35 in the cancellation group who said that they never sought aid. It might have been to their advantage to get some help from their instructors and consequently earn a renewal of the scholarship award.

TABLE LXXXI

QUESTION 33. WHEN SOUGHT, DID YOU GET THE NECESSARY AMOUNT OF TIME FROM YOUR INSTRUCTORS TO DISCUSS YOUR PERSONAL CLASSROOM DIFFICULTIES?

| Group | Yes | Per cent | No | Per cent |
|--------------|-----|----------|----|----------|
| Cancellation | 80 | 76.9* | 24 | 23.1 |
| Regular | 57 | 85.1 | 10 | 14.9 |

*Per cent of those who answered the question.

TABLE LXXXII

QUESTION 34. WERE THE DEMANDS OF THE COLLEGE INSTRUCTORS GREATER THAN YOU HAD ANTICIPATED?

| Group | Yes | Per cent | No | Per cent |
|--------------|-----|----------|-----|----------|
| Cancellation | 56 | 44.8* | 69 | 55.2 |
| Renewal | 28 | 13.8 | 125 | 86.2 |
| Regular | 18 | 24.3 | 56 | 75.7 |
| All groups | 92 | 26.9 | 250 | 73.1 |

*Per cent of those who answered the question.

The t test shows significant differences between the cancellation group and the regular group and between the cancellation group and the renewal group. The renewal and the regular groups appear to represent the same parent population. Almost 45 per cent of those cancellation students who answered this question felt that the college academic program was too rigid for their experience and background.

TABLE LXXXIII

QUESTION 35. WERE YOU SATISFIED WITH THE QUALITY OF
THE COLLEGE INSTRUCTION IN GENERAL?

| Group | Yes | Per cent | No | Per cent |
|--------------|-----|----------|----|----------|
| Cancellation | 89 | 72.4* | 34 | 27.5 |
| Renewal | 119 | 79.4 | 31 | 20.6 |
| Regular | 64 | 85.3 | 11 | 14.7 |
| All groups | 272 | 78.2 | 76 | 21.8 |

*Per cent of those who answered the question.

TABLE LXXXIV

QUESTION 36. IF NOT, WHAT WAS WRONG?

| Suggestions | Number of times mentioned by | |
|--|------------------------------|---------|
| | Can. Gp | Ren. Gp |
| Instructors in the basics are poor | 13 | 16 |
| Instructors show no personal interest | 14 | 5 |
| Instructors have "don't care" attitude | 8 | 6 |
| They try to teach too much | 8 | 6 |
| Instructors not trained in methods | 9 | 2 |
| Instructors are unreasonable | 3 | 2 |
| Instructors ridicule students | 1 | 1 |
| Instructors devoid of personality | 1 | 6 |
| Instructors have poor diction | 2 | 4 |
| Instructors repeat the text material | 1 | 3 |

The tabulation of what was wrong with college instruction is self-explanatory and reveals that there was no one particular criticism on the part of these students. The renewal students did state 16 times that the instructors in the basic subjects were poor. The cancellation students felt that the instructors took no personal interest in their students, that they tried to teach too much, and that they were not too well trained in instructional methods.

TABLE LXXXV

QUESTION 37. WHAT THINGS, IF ANY, HANDICAPPED YOU IN
YOUR COLLEGE WORK? (CANCELLATION GROUP ONLY)

| Suggested handicap | Frequency |
|---|-----------|
| Lack of goals | 30 |
| Financial difficulties | 24 |
| Outside employment | 23 |
| Athletic participation | 11 |
| Family troubles | 9 |
| Excessive dating | 8 |
| Place of residence | 7 |
| Wrong associates | 6 |
| Feeling of insecurity | 5 |
| Poor health | 4 |
| Worry about examinations | 4 |
| Inferiority complex | 3 |
| Lack of interest in classes | 2 |
| Went home too much | 2 |
| Too many bull sessions | 2 |
| Not knowing how to study | 2 |
| Over-participation in activities | 2 |
| Miscellaneous items of one frequency each | |

The cancellation students felt that the greatest handicaps to their college work were lack of goals, financial difficulties, and outside employment. The question was asked, too, of the regular students but their answers were spread over such a wide range of notions that they were too difficult to summarize. However, 10 stated that financial difficulties handicapped them, and 15 stated that they had no handicap at all. Not a single item had a frequency greater than 4.

TABLE LXXXVI

QUESTION 38. WHAT INFLUENCES, IF ANY, INSPIRED YOU TO DO BETTER WORK THAN YOU WOULD OTHERWISE HAVE DONE?

| Influences | Number of times mentioned by | | |
|---|------------------------------|---------|---------|
| | Can Grp | Ren Grp | Reg Grp |
| Parents and other members of the immediate family | 49 | 92 | 36 |
| The scholarship award itself | 36 | 104 | xx |
| Friends both on and off the campus | 20 | 40 | 18 |
| High school and college instructors | 14 | 32 | 1 |
| Athletic and scholastic eligibility | 14 | 5 | 16 |
| Studious room-mates | 8 | | |
| Personal pride or ego | 4 | 12 | 9 |
| My boy friend | 3 | | 3 |
| Desire for an education | 2 | | 6 |
| Threat of the army | 2 | 1 | 1 |
| The coach | 1 | | 1 |
| None at all | 1 | 6 | 1 |
| Miscellaneous items of one frequency | | | |

The influences which had the greatest effect on the scholarship students were their parents, their friends, and the scholarship itself. Two-thirds of the renewal students said that they were spurred on by a desire to win a renewal of the scholarship while only 28 per cent of the cancellation students said that they tried hard to earn the renewal.

TABLE LXXXVII

QUESTION 39. HOW MANY HOURS PER WEEK DID YOU
SPEND IN GAINFUL EMPLOYMENT?

| | Cancellation group | Renewal group | Regular group |
|--|-----------------------|------------------|------------------|
| Number of replies received | 125 | 153 | 77 |
| Number of students employed | 59 | 59 | 28 |
| Per cent of total employed | 47.5 | 38.5 | 36.1 |
| Range of hours employed | 2-40 | 2-30 | 2-30 |
| Average number of hours employed per person | 15.9 | 14.1 | 12.2 |
| Standard deviation of the means | 1.00 | .88 | — |

The t test for significance between the means of the cancellation and the renewal groups reveals a t value of 1.4 which is not significant. From this information it appears that outside employment was not a significant cause of the high mortality among the scholarship students.

TABLE LXXXVIII

QUESTION 40. WHERE DID YOU LIVE WHILE A
FRESHMAN AT MICHIGAN STATE COLLEGE?

| Group | Frequencies | | | |
|--------------|-------------|----------------|--------------------|--------------------|
| | At home | Dormi- tory | Local residence | Quonset Village |
| Cancellation | 12 | 101 | 26 | 20 |
| Renewal | 19 | 123 | 25 | 28 |
| Regular | 27 | 109 | 27 | 27 |

The figures in Table LXXXVIII were obtained from data in the Record's Office. This accounts for the fact that the total number of frequencies varies from the total number of questionnaires returned.

It was pointed out in Chapter III that there is little or no relation between place of residence and academic achievement as far as college students are concerned. However, according to the evidence presented in the next table the cancellation students felt that their place of residence was a definite handicap to their academic achievement.

In giving their reasons why their place of residence was a handicap academically the students said that the place was too noisy, that study facilities were not at all adequate, that there was always too much confusion abounding, and that pleasures were too easy to get.

TABLE LXXXIX

QUESTION 41. WAS YOUR PLACE OF RESIDENCE LAST YEAR A HANDICAP TO YOU AS FAR AS YOUR ACHIEVEMENT IN COLLEGE WAS CONCERNED?

| Group | Yes | Per cent | No | Per cent |
|--------------|-----|----------|-----|----------|
| Cancellation | 56 | 45.2 | 68 | 54.8 |
| Renewal | 42 | 27.8 | 109 | 72.2 |
| Regular | 28 | 39.5 | 43 | 60.5 |

Forty-five per cent of the cancellation students felt that their place of residence was a handicap to their academic achievement in college against a total of 28 per cent of the renewal students. The test of significance shows no difference between these two groups for we obtain a t value of 3.05.

TABLE XC

QUESTION 42. IF SO, WHAT WAS WRONG?

| Comments | Frequency of answers by | |
|----------------------------------|-------------------------|------------|
| | Can. group | Reg. group |
| Too noisy | 25 | 11 |
| Poor facilities for study | 18 | 11 |
| Pleasures too easy to get | 6 | 2 |
| Distance factor detrimental | 4 | 4 |
| High school pals still available | 3 | 1 |
| Unco-operative room-mate | 3 | 3 |
| The place is too big | 2 | 3 |
| Family disturbances | 2 | 0 |

In order to find causes for the large number of scholarship cancellations the writer asked if there had been any over-participation in extra-class activities. It appears, however, that this is not a contributing cause of the scholarship cancellations in the opinion of the students themselves for only 17 per cent of them stated that they spent too much time with outside activities.

TABLE XCI

QUESTION 43. DID YOU OVER-PARTICIPATE IN EXTRACLASS ACTIVITIES TO THE DETRIMENT OF YOUR STUDIES?

| Group | Yes | Per cent | No | Per cent |
|--------------|-----|----------|-----|----------|
| Cancellation | 20 | 17.1* | 97 | 82.9 |
| Regular | 15 | 31.9 | 32 | 68.1 |
| Both groups | 35 | 21.3 | 129 | 78.7 |

*Per cent of those who answered the question.

TABLE XCII

QUESTION 44. IF SO, IN WHAT AREAS AND FOR HOW
MANY HOURS PER WEEK?

| Cancellation group | Hours | Regular group | Hours |
|--------------------|-------|-------------------|-------|
| Employment | 40 | Rel Organ and | |
| Football | 26 | Dancing | 20 |
| Athletics | 18 | Bull sessions | 10 |
| Football | 18 | All activities | 10 |
| Basketball | 16 | Too many activ | 8 |
| Sports | 16 | Intramurals | 8 |
| Drama | 15 | Fraternity | 8 |
| Basketball | 15 | Publications | 7 |
| Basketball | 12 | Drama | 6 |
| Home Econ. Club | 12 | Intramurals | 6 |
| Hockey | 12 | Athletics | 5 |
| Baseball Manager | 12 | Spartan Guard | 4 |
| Hockey | 10 | Bull sessions | 4 |
| Sports | 10 | Yes, a lot of 'em | 3 |
| Sports | 10 | Spartan Guard | 2 |
| Boy Scouts | 10 | Bull sessions | 2 |
| Dramatics | 8 | | |
| Dating | 8 | | |
| Lecture Concert | 8 | | |
| Dating | 6 | | |
| Phys. Educ. Activ. | 4 | | |
| A W S | 4 | | |
| Church Activities | 3 | | |
| Spartan Guard | 2 | | |

Table XCII shows that only 20 members of the cancellation group stated they had spent too much time on outside activities, however 24 items were listed. Among these we find that athletic activities of some kind are listed 13 times. It appears from the data supplied by this questionnaire that participation in extra-class activities was not detrimental to the academic success of the students involved.

TABLE XCIII

QUESTION 45. (TO CANCELLATION GROUP) WHAT WERE THE MAIN REASONS THAT YOU DID NOT EARN THE 1.6 AVERAGE LAST YEAR?

| Reasons | Frequencies |
|--------------------------------|-------------|
| Poor study habits | 58 |
| Poor adjustment to college | 30 |
| Lack of interest | 27 |
| Low marks on the comps | 26 |
| Poor high school preparation | 14 |
| Improperly enrolled | 13 |
| Lack of goals | 13 |
| Dormitory a handicap | 12 |
| Specific courses | 10 |
| Too much outside activity | 9 |
| Fear of loss of scholarship | 8 |
| The comprehensive system | 7 |
| Poor reading ability | 7 |
| Faulty instruction | 6 |
| Nervous on examinations | 6 |
| Outside employment | 5 |
| No extra-curricular activities | 4 |
| Lack of enough time | 4 |

The last question on the questionnaire furnishes the subjective evidence of why over 41 per cent of the scholarship students failed to renew their scholarships. This is perhaps the most important table in this chapter for it summarizes the students' own opinions of why they did not earn the 1.6 average during their freshman year.

These students placed the blame upon their failure to establish good habits of study. Forty-seven per cent of them said that they had not set up a study schedule, had not applied themselves fully to their work, that they put off doing assignments, and had poor work habits in general.

Twenty-seven per cent of them attributed their poor freshman record to the comprehensive examination system as it operates in the Basic College. These students obtained low marks in the basic subjects and found fault with the system generally. Twenty-four per cent said that they found it very difficult to make the proper adjustment from high school to college and 21 per cent of them stated that they lacked interest in their work. Ten per cent stated that they had not set up pre-determined goals and 10 per cent said that the conditions of their dormitory were not conducive to study. About the same number attributed their poor record in college to their poor high school preparation and an equal number placed the blame on one specific college course for which they were not properly prepared. All in all the students listed 49 different causes with varying frequencies. Some of these are presented in the preceding table.

TABLE XCIV

QUESTION 45. (TO RENEWAL GROUP) WHAT FACTORS CONTRIBUTED
TO YOUR ACADEMIC SUCCESS AS A FRESHMAN AT
MICHIGAN STATE COLLEGE?

| Factors | Frequencies |
|--|-------------|
| Good study habits | 42 |
| Good high school background | 38 |
| Desire to do well in college | 36 |
| Interest in college courses | 35 |
| Desire to renew the scholarship | 28 |
| Family expectations | 24 |
| Helpful instructors in college | 24 |
| Assistance of other students | 21 |
| Proper balance and poise | 15 |
| Definite goal in mind | 14 |
| Easily and quickly adjusted to college | 12 |
| Liked the college and college life | 11 |
| Lots of hard work | 10 |
| Well balanced program | 10 |
| General intelligence | 10 |
| Wide experience in pre-college days | 9 |
| Participation in outside activities | 9 |
| Sheer luck | 5 |
| Comprehensive system | 4 |
| Financial need | 4 |

The scholarship students who renewed their awards at the end of the freshman year attribute their success to their excellent high school backgrounds, their general interest in college, their resourcefulness in knowing how to use all the facilities at their command, their ability to establish good habits of study, their desire to please their parents in earning the renewal, plus their own personal desire and determination to perform well in college.

The survey of the records of the scholarship students and the study of the opinions which they have



expressed clearly indicate to the writer that one of the major differences between those who renew their awards and those who don't is the factor of motivation. Though the records show that the renewal students attained a higher grade point average in high school than the cancellation students, those who renewed their scholarships in college have shown and expressed an earnest desire to succeed which is not evident on the part of the members of the cancellation group. The renewal students had a strong determination to succeed.

The last question put to the renewal students was, "What advice can you give to beginning college students?" There were 39 different suggestions offered with frequencies ranging from 21 down to one. The three suggestions offered most frequently were: first, have a definite study plan, second, keep up to date on your assignments, and third, learn to budget your time effectively. Other suggestions mentioned were: learn to look after yourself, seek the help of your instructors and classmates, and try to get off to a good start. These suggestions appear to be sound advice.

The administration of the questionnaire revealed some interesting data regarding these scholarship students. Since these facts are summarized in tabular form throughout the chapter and will be repeated in the final chapter they

will not be stated here. The implications, too, from this material which should prove beneficial to the guidance programs of both the high schools and the colleges will be presented in the following chapter.

CHAPTER VIII

IMPLICATIONS AND CONCLUSIONS

The writer has attempted in this study to make an analysis of the academic achievement of those freshmen who were admitted to Michigan State College in the fall of 1949 on tuition free scholarships for the primary purpose of discovering why so many of them failed to earn a renewal of their awards at the end of the freshman year. The pursuit of this objective led to a study of the high school records, a study of the first year college records, and to the administration and study of a questionnaire. This investigation revealed many characteristics of the scholarship students and uncovered the factors which contributed either to the success or detriment of those students in their academic pursuits. A summary of this investigation follows.

1. During the spring and summer of 1949, Michigan State College granted 400 tuition free scholarships to prospective freshmen students. As a result of the early losses and subsequent alternate appointments, 386 freshmen enrolled at the College to make use of the award. Of this number 33 students, or 8 per cent, withdrew sometime during the school year and 158, or 41 per cent, failed to earn a renewal of the scholarship award at the end of the

year, for they failed to meet the 1.6 grade point average required for the renewal. Seventeen of these 386 students were from out of the state and of these, 12 failed to renew the scholarship grant.

2. Colleges all over the United States are enlarging their scholarship programs to make it possible for able students of limited financial means to continue their formal education. The literature reveals that the economic factor is one of the most important factors preventing talented youth from continuing their education. The program in this respect at Michigan State College is in line with that of other colleges which each year are giving more and more scholarship awards. At the present time there are over 1,000 students studying at Michigan State College under the tuition waiver plan.

3. A review of the literature pertinent to this investigation revealed not a single study parallel to this one. Krugman made a similar study of scholarship students to determine how the marks earned by them in college approached the normal curve and the curve of marks obtained by the whole college group. His study revealed that scholarship students earned higher grades than the other students, and as a whole were much superior students.

Other studies show that there is a positive

correlation between high school subjects and grades of the same subject when pursued in college, that graduates of small high schools do poorer work in college than graduates of large high schools, that the student's high school record is the best single means of predicting success in college, and that there is conflicting evidence regarding the relation of place of residence to success in college. The evidence of the several studies reviewed is not strong enough to favor one type of housing.

4. This investigation revealed that 70 per cent of the withdrawal students came from Class B and Class C high schools.

5. Seven of the 33 withdrawal students returned to Michigan State to make further use of their scholarship grant.

6. Fifty per cent of the cancellation students came from high schools having less than 60 members in the high school graduating class, while only 24.6 per cent of the renewal students came from the same size high school. Fifty-one per cent of the cancellation students came from Class C and Class D high schools against 27 per cent of the renewal students from the same size high schools.

7. Half of the men and 40 per cent of the women scholarship students lost their scholarships at the end of the year.

8. The cancellation students averaged .6 of a year older than the renewal students.

9. Of the cancellation group, 13 per cent came from broken homes against a percentage of 7 per cent for the renewal group.

10. Only 17 of the cancellation students had fathers who were professional men, while 40 of the 195 renewal students had fathers whose positions were of a professional nature.

11. In 27 per cent of the cases the cancellation students came from homes where the mother was employed against a percentage of 17 per cent for the renewal group.

12. The more successful scholarship students come from homes of a higher economic status.

13. The more successful scholarship students come from schools which are accredited by the North Central Association of Colleges and Secondary Schools.

14. The members of the renewal group attained a higher high school grade point average than the members of the cancellation group (2.5 to 2.2). This fact, plus the evidence submitted in Conclusion 16, might lead one to suspect that renewal students had higher Intelligent Quotients to begin with and therefore were expected to do better work in college. This investigation offers no evidence of comparative I. Q.'s.

15. Students, both regular and scholarship, who studied foreign language in high school did better work in college than those who did not study foreign language in high school.

16. On the Psychological Examinations administered by the college the renewal students were superior to the cancellation students by about two and one-half deciles on both the general reading ability and the general intelligence scores. The average scores of the cancellation students were almost the same as the scores of the 200 regular students who were selected at random.

17. The academic record of the renewal students was much superior to that of the cancellation students for the former averaged 2.06 honor points per credit hour while the latter earned an average of 1.095. The regular students averaged 1.098 honor points per credit hour and this is superior to the average of the cancellation students. The scholarship average for the cancellation students did not even equal the average for the entire Freshman Class.

18. It appears that the Schools of Engineering and Home Economics furnished more than their proportionate share of the number of cancellation students.

19. Of all the "D's" and "F's" received by the scholarship students, 74 per cent of them were obtained by the students in the cancellation group. The courses in which these students lost honor points were Mathematics, Military

Science, Chemistry, and Physical Education for both men and women.

20. Of the scholarship students majoring in Home Economics, Agriculture, Business Administration, Physical Education, or having no major at all, over half of them failed to renew their scholarships.

21. There was significant difference between the cancellation and the renewal groups in regard to their opinions of their high school preparation. Only 57 per cent of the cancellation students felt that they were adequately prepared while 78 per cent of the renewal students stated that they were properly prepared.

22. Ninety per cent of the renewal group against 64 per cent of the cancellation group felt that they were prepared to cope with the demands made on college freshmen. When the same question was asked stressing the academic demands the percentages were respectively 93 and 76. Statistically there is significant difference between the two groups in both areas.

23. Thirty-eight per cent of the cancellation students against 16 per cent of the renewal students said that the size of their high school was a handicap to their academic achievement. This difference is significant.

24. Regarding the program of educational guidance in high school there was no difference in achievement between the two groups. However, 3 out of 8, or 37 per cent

of the students involved in this study were not satisfied with the program as it was carried on. And 25 per cent of the members of the different groups were not satisfied with the college orientation program.

25. The students were asked to list the areas in which they considered their high school strong and weak. It is interesting to note that the same subjects head both lists. Mathematics, English, and Science, in fact, the college preparatory subjects in general, were the strong subjects in some schools and the weak subjects in others.

26. The best advice which the scholarship students could give to other scholarship students was: first, establish an effective means of study, and second, keep your assignments up to date.

27. Only 71 per cent of the cancellation students felt that they were properly enrolled against a percentage of 86 per cent for the renewal group. This difference is significant. The dissatisfaction came from having too heavy a load, from having to spend too many hours in classes, from being enrolled in the wrong courses, and from lack of personal interest in the enrollees.

28. Neither group appeared to be handicapped by class size.

29. Regarding the attitude toward the comprehensive examination system as it operates in the Basic College, we find significant difference between the two groups. About

41 per cent of the cancellation students were satisfied with the system against 61 per cent of the renewal group. About 55 per cent of the regular group were satisfied. This means that 59 per cent of the cancellation students, 39 per cent of the renewal students, and 45 per cent of the regular students were dissatisfied with the comprehensive system. Those who expressed dissatisfaction stated that they thought it unfair to base the mark for an entire year's work in a course on one examination. They felt that some credit should be given for the marks earned during the separate terms,- that too much weight was assigned to one test. A few merely stated that the whole system was unfair.

30. The students who succeeded in renewing their scholarships had been planning on a college course for a longer period of time than those who lost their awards. Of the 153 renewals who answered the questionnaire we find 122 who had known all through their high school days that they were going to college some day. From the 125 cancellation students we find only 69 who had been planning to attend college for at least 4 years.

31. It is observed that 22 per cent of the cancellation students operated on a definite study program last year against a percentage of 35 per cent for the renewal group. There is significant difference between the two groups. The average time spent studying during the daytime

was approximately 2 hours for each group which means no significant difference statistically. Regarding the time spent per week studying in the library the average is approximately 2 hours for each group of students and again there is no significant difference between the groups.

32. The majority of the cancellation students said that they were negligent in preparing their assignments because of lack of interest in their courses, or because of faulty instruction; the renewal students were somewhat divided in their opinions. Yet about 55 per cent of the members of each group felt that the subjects taken in their freshman year did contribute to the attainment of their plans.

33. It appeared that absences from classes were moderate for all students and did not contribute to the large number of scholarship cancellations. Neither did the times spent away from the regular place of residence affect the academic achievement of the cancellation group. We find that the cancellation students spent an average of 3.22 week ends per term off campus compared with 2.82 for the renewal group.

34. The cancellation students said that they sought help from their instructors infrequently, but that when help was sought the instructors gave them the necessary amount of time to discuss their problems. About 45 per cent of the cancellation students thought that the demands

of the instructors were greater than they had anticipated, but only 14 per cent of the renewal students felt that the demands were too heavy. The students in all three groups felt very well satisfied with the quality of instruction in general. The cancellation students felt that the instructors did not manifest enough personal interest in the students while the renewal students said that they thought the instructors in the basic subjects were poor.

35. The cancellation students spent an average of 15.9 hours per week in gainful employment while the renewal students averaged 14.1 hours. Forty-seven per cent of the cancellation students were employed against 38.5 per cent of the renewals. Inasmuch as a larger per cent of the cancellation students were gainfully employed and since they worked 1.8 hours per week longer than the renewal students, it appears that outside employment was one of the contributing factors for the large number of scholarship cancellations.

36. Forty-five per cent of the cancellation students against 28 per cent of the renewal students stated that their place of residence was a handicap to them. They stated that there was entirely too much "horseplay", and too many disturbing influences which made it difficult for them to study. However, the statistical evidence of this study does not favor one type of housing over any other.

37. Only 17 per cent of the cancellation students felt that they had over-participated in extra-class activities. Most of those who answered in the affirmative mentioned athletic activities of some kind as the area in which they spent too much time.

38. The cancellation students suggest that they could have improved their campus life by the enlargement of their social program. They suggest that the college give more attention to the individual and not place so much stress on the testing program. They claim that the high schools could have prepared them more adequately for the college work they were expected to do and for the transition into college life. If these suggestions were put into practice, 74 per cent of the cancellation students said that they thought their marks in college would have been higher, and 42.5 per cent of the renewal students said that it would have made a positive difference.

When these students were asked what they could have done to further their academic achievement the cancellation students said that they could have established better study habits. The regular students made the same suggestion. The question was not asked of the renewal students for their achievement was highly commendable.

39. From both groups, in 37 per cent of the cases the parents helped plan the student's high school program. And in almost every case the parents favored the college

education. Regarding the college backgrounds of the parents, there is no significant difference.

40. Thirty-one per cent of the cancellation students and 42 per cent of the renewal students made use of the counseling center services the first year.

41. When asked what influences inspired the students to do better work, the cancellation students said: first, their parents or other members of the family; second, their friends; and third, the scholarship award itself. These cancellation students felt that the greatest handicaps to their college work were lack of goals, financial difficulties, and outside employment. Two-thirds of the renewal students said that they were spurred on by a desire to win a renewal of the scholarship, while only 28 per cent of the cancellation students said that they tried hard to earn a renewal.

The scholarship students who renewed their awards at the end of the freshman year attribute their success to their excellent high school backgrounds, their general interest in college, their resourcefulness in knowing how to use all the facilities at their command, their ability to establish good habits of study, their desire to please their parents in earning a renewal, plus their own personal desire and determination to perform well in college.

42. The scholarship students who lost their scholarships placed the blame upon their failure to

establish good habits of study. Fifty per cent of them said that they had not set up a study schedule, had not applied themselves fully to their work, that they put off doing assignments, and had poor work habits in general. Twenty-seven per cent attributed their poor freshman record to the comprehensive examination system in the basic subjects. About 17 per cent of them said that they lacked interest in their work and 12 per cent said that they had enrolled in college without having a specific goal in mind. Another 12 per cent said that they found it very difficult to make the proper adjustment from high school to college and 9 per cent said that the conditions in the dormitory in which they lived were not conducive to study. The same percentage attributed their poor record in college to their poor high school preparation and an equal number placed the blame on one specific course in college for which they were not fully prepared. All in all, the students listed 49 different causes with varying frequencies.

In the beginning the writer stated that he believed that this investigation would be beneficial to guidance officials in both secondary schools and colleges in order that they might promote better adjustment of college freshmen. At the conclusion he is convinced that several implications can be drawn from the study which will be helpful to both the high schools and the colleges which have a mutual interest in the education of the youth of the

land. This portion of the final chapter will be devoted to the summary of implications, inferences, and suggestions gleaned from the investigation.

It appears that the idea of a scholarship award has taken on an entirely new connotation in the past few years. Formerly a scholarship grant was an honorary award given only to high ranking members of high school graduating classes. The award was based entirely on scholastic achievement and hence usually was awarded either to the valedictorian or salutatorian of the class. Now the award is based on both academic achievement and financial need and is not always given to a high ranking student.

When the statement is made that 41 per cent of those students admitted to Michigan State College on scholarship fail to earn a renewal at the end of the first year, the listener is usually startled to learn that so high a percentage of high school honor students should fail to make the grade. But when he is informed that these students are not all honor students, that some might have ranked 28th in a class of 52 or 47th in a class of 268, the fact is more readily understandable. The scholarships as they are now administered serve merely as an inducement to get students to come to college, serve as a competitive means for increasing college enrollments, and lastly, make it possible for students of limited financial resources to attend college. Because these awards have ceased to be

awards for high scholarship in the secondary school they should no longer be called scholarships in the true sense.

The College requires that students must earn a total of honor points equal to the total of credit hours by the end of their senior year or they will not be graduated. This amounts to saying that they must earn a 1.0 (one-point) average. The scholarship students must earn a 1.6 average in order to have their scholarships renewed. This appears to be a dual standard. It has been suggested by some educators interviewed in the process of this investigation that this requirement of the scholarship students is unfair. The question has been raised, "Why require them to earn a 1.6 average for a renewal when a 1.0 is all that is required for graduation?" The question poses a problem for investigation. The college grants scholarships to able students of limited financial resources and then places upon them the added burden of maintaining the 1.6 average. By so doing the college cancels the scholarships for those who need it most.

Yet when the study of the records is carried into the second year, we find that 73 per cent of those who lost their scholarships returned to the campus to continue their education in spite of the added financial burden. Of the renewal students, 87 per cent of them returned for their sophomore year; while among the regular group whose records were studied, 70 per cent returned to continue

their education. A question which might be raised at this point is, "Are the scholarship students able to pay their tuition in the first place?" A study of the records of these students for the 4 year period would prove interesting as well as valuable.

In the analysis of the data for this investigation the writer became aware of the fact that certain high schools in the State, and large ones too, were not represented by scholarship students at Michigan State College. This might be due to the fact that the high school administrators were not aware of the availability of the awards, were not in sympathy with the program in general, were more loyal to other schools of higher learning, or were just negligent in the discharge of their duties. The College can offer one tuition-free scholarship to each of the 650 approved high schools in Michigan; therefore, it should do all in its power to bring the literature regarding this information before the graduating seniors in these schools.

Students from the large high schools in Michigan have a higher academic achievement than those from small high schools. Scholarship students who come from schools which are accredited by the North Central Association do much better in college than those who come from non-NCA schools. And students whose high school marks are all "A's" and "B's" are definitely good risks. An examination

of the high school averages of those who renewed their scholarships revealed practically all "A's" and "B's". Out of a total of more than 1300 marks for these people there were only 45 "C's".

It appears that some of the items on the application for admission blank serve no purpose except to put the high school principal "on the spot". The writer feels that certain items of information on the application blank were of little value in this scholarship investigation and consequently of doubtful value to both the high school and the college registrars. He suggests further study of the value of the following information: 1. Quality of work the applicant is expected to do, 2. Grade average required for recommendation to college, 3. Type of high school course followed, and 4. Quality of the principal's recommendation. The writer found many inconsistencies between what was recommended and what was actually done.

The students whose scholarships were cancelled were not high school honor students in the true sense of the word. They were slightly better than "B" students. Their high school averages were superior to the averages of the regular freshmen in the ratio of 2.2 to 1.7, their scores in the general intelligence phase of the Psychological Examination were in the ratio of 5.1 to 5.0, their scores in the general reading phase of the same examination were in the ratio of 4.6 to 5.2, and their

honor-point averages for their first year in college were in the ratio of 1.1 to 1.2. From this evidence it appears that the cancellation students were just average students during their first year in college.

The comprehensive examination system as it operates in the Basic College has had more than its share of criticism since its inception. Students and faculty alike have believed that this system was responsible for the high mortality among the scholarship group. It has been shown on page 138, Chapter VI, that if the marks given out at the end of each term's work were used instead of the comprehensive mark, then 16 scholarship students who lost their scholarships would not have lost them and 16 scholarship students who renewed their scholarships would have lost them. Thus if the system were changed for the purpose of determining scholarship renewals, there would be neither a gain nor a loss as far as this group of 386 scholarship students is concerned. While the system jeopardizes some, it favors others. In this respect the results of this study indicate that the present system is satisfactory.

A number of the students said that they did not learn how to study in high school, that high school was made much too easy for them, and that they were not prepared for the big jump to college and the responsibilities which college life entailed. They suggested more and

better educational guidance in high school for the college preparatory group.

At the same time the College must recognize its responsibility to the students along these same lines. The College might give material help to the students in the way of study techniques: in the form of lectures, demonstrations, discussions, or visual aids. Many stated that they did not know how to read intelligently, that they didn't know how to take notes, that they did not know how to study for examinations, and that they did not know how to budget their time effectively. Some suggested the establishment of supervised study rooms in the various dormitories. These students are still quite immature as they come from high school and are in need of sympathetic guidance and friendly counsel. Since it is the purpose of the College to imbue them with security and confidence in their endeavors, this is an area in which the College Administrators should give some thoughtful and constructive planning.

The students who are admitted on scholarship are told when the award is made that they must maintain a 1.6 average in order to earn the renewal. They are told this again in a group assembly some time during their first week on campus, but somehow the responsibility of earning the 1.6 average is apparently forgotten. Soon a term has slipped by and they have dropped below the required

standard. It then becomes an uphill battle to reach the 1.6 average. Many students really lose their scholarships during the first term. They are not prepared to make the required transition, they get lost in the social whirl of the new surroundings, they get interested in the "bull sessions" in the dormitories, and they get behind in their class-work from which they are unable to make recovery. Consequently they become more and more bewildered and fail to earn the 1.6 average required for a renewal of the scholarship.

As the investigation progressed the writer became aware of the fact that one of the major differences between those who renewed their awards and those who didn't was the factor of motivation. In addition to the fact that the renewal students came to college with a higher grade point average than the cancellation students, those who renewed their scholarships have shown and expressed a desire to succeed which is not evident on the part of the members of the cancellation group. The renewal students exhibited a greater interest in college, more resourcefulness in making use of the facilities at their command, greater ability to establish good habits of study, more concern of their responsibility to the high schools from which they came and to the college at which they matriculated, and a greater desire to please their parents than was exhibited by the cancellation group. In other words,

the big difference between the academic achievement of the renewal students over the cancellation students was in their own personal desires and their determination to perform well in college. Over these intangible qualities the college had little or no control.

In the beginning the writer sought to determine why 41 per cent of the freshmen admitted on scholarship to Michigan State College in the fall of 1949 failed to earn a renewal of the scholarship at the end of the first year of college work. The investigation was divided into three major phases: first, a study of the students' high school backgrounds, second, a study of the students' records as college freshmen, and third, an analysis of subjective evidence obtained from a questionnaire. The investigation uncovered much evidence from which the following are some of the more important conclusions:

1. More than half of those who lost their scholarships came from small high schools. The more successful students came from large high schools which were accredited by the North Central Association.
2. Those who lost their scholarships had lower high school averages and scored way below the renewal students on the Psychological Examinations. As a group they were not bright students in the first place.
3. Fifty-nine per cent of the cancellation students were dissatisfied with the comprehensive examination system.

4. The cancellation students stated that they lacked interest in their classes and expressed apathy in general toward college work. On the other hand, the renewal students were interested in achieving their goals and earning a renewal of the award.
5. Outside employment was definitely a cause of many scholarship cancellations.
6. Those who lost their scholarships stated that the study facilities in their respective dormitories were very unsatisfactory.
7. The scholarship students themselves attribute the loss of their scholarships to their ineffective habits of study.

BIBLIOGRAPHY

BIBLIOGRAPHY

Primary Sources

Books

- Aiken, Wilford Merton, The Story of the Eight-Year Study. New York: Harper and Brothers, 1942. 157 pp.
- Baten, William Dowell, Elementary Mathematical Statistics. New York: John Wiley and Sons, Inc., 1938. 281 pp.
- Campbell, William Giles, A Form Book for Thesis Writing. Boston: Houghton Mifflin Company, 1939. 117 pp.
- The Seventh Census of the United States; 1850. Washington: Robert Armstrong; Public Printer. 1853. cxxxvi + 1022 pp.
- Thirty Schools Tell Their Story. Progressive Education Association. New York: Harper and Brothers, 1943. 802 pp.
- Warner, Lloyd W., Robert J. Havighurst, and Martin B. Loeb, Who Shall Be Educated?, New York, Harper and Brothers, 1944. 190 pp.

Theses

- Eicher, Chester F., "The Success of North Carolina High School Students in Four North Carolina Colleges." Unpublished Doctor's dissertation, Duke University, Durham, 1942.
- Froehlich, Gustav J., "The Validity of the Wisconsin Achievement Test as an Instrument for Predicting Success at the University of Wisconsin." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1941.
- Goforth, Malcolm, "A Comparison of Freshman Grades with High School Grades and Psychological Scores of Class Entering Alabama Polytechnic Institute in 1937," Unpublished Master's thesis, Alabama Polytechnic Institute, Auburn, 1939.

- Grote, Caroline, Housing and Living Conditions of Women Students. New York: Bureau of Publications, Teachers College, Columbia University, 1932. 106 pp.
- Hansen, Minna, "Some Factors in the Housing of Students Related to Success in College." Unpublished Doctor's dissertation, University of Chicago, Chicago, 1943.
- Krugman, Abraham, "A Comparison of Grades of Scholarship Students and All Students in the Washington Square College of New York University." Unpublished Master's thesis, New York University, New York, 1932.
- Phearman, Leo T., "Comparisons of High School Graduates Who Go to College With Those Who Do Not Go to College," Unpublished Doctor's dissertation, University of Iowa, Iowa City, 1948.
- Stephens, Theodore P., "An Evaluation of Scholarship and Character of College Students." Unpublished Doctor's dissertation, University of Chicago, Chicago, 1941.
- Stevens, Ashley., "A Study of Some Factors in the Prediction of Freshman Achievement at the University of Denver." Unpublished Doctor's dissertation, University of Denver, Denver, 1949.
- Stewart, Maude A., "The First Year Grade Point Average as a Measure for Predicting Academic Attainment in the Junior-Senior Years of Study in the Major Fields of the College of Liberal Arts of Syracuse University." Unpublished Doctor's dissertation, University of Syracuse, Syracuse, 1947.
- Stright, Isaac L., "The Prediction of Success in Baldwin Wallace College." Unpublished Doctor's dissertation, Western Reserve University, Cleveland, 1946.
- Stuart, William C., "The Relation of the Size and Location of High Schools to the Achievement of Their Students." Unpublished Doctor's dissertation, New York University, New York, 1947.
- Van Alstine, Frank L., "The Relation Between the Housing of Students and Their Scholarship at the University of Minnesota." Unpublished Doctor's dissertation, University of Minnesota, Minneapolis, 1941.

Periodicals

Atkinson, W. H., "College-High School Agreement in Michigan," School and Society, 65:144-5, February 22, 1947.

"A New Program and an Expansion of the National Scholarships at Harvard," School and Society, 63:77-8, February 2, 1946.

"Harvard's National Scholarships Six Years After Their Inception," School and Society, 54:435, November 15, 1941.

Moulton, Ella Lee, "Dormitory Values for Students," School and Society, 29:363, March 16, 1929.

"New York University Establishes 'Gold Star' Scholarships," School and Society, 59:72, January 29, 1944.

"Research Opportunities at Ohio State University," School and Society, 63:222, March 30, 1946.

Ryan, H. H., "Government Scholarships for High School Graduates," Clearing House, 23:372, February, 1949.

"Scholarships Available for New-Plan Students, University of Chicago," School and Society, 58:405, November 20, 1943.

"Seven Eastern Women's Colleges Will Offer National Scholarships," School and Society, 58:453, December 11, 1943.

Seyler, E. C., "The Value of Rank in High School Graduating Class for Predicting Freshman Scholarship," American Association of Collegiate Registrars' Journal 15:5-22, October, 1939.

Stalnaker, John M., "Pepsi-Cola Scholarship Board Activities," School and Society, 66:396, November 22, 1947.

"The Seven College Conference National Scholarships," School and Society, 62:350, December 1, 1945.

Thurston, Lee M., "The Michigan College Agreement," School and Society, 67:386-7, May 22, 1948.

Wolf, Ralph Robinson, "Do Scholarships Accomplish Their Purpose?" School and Society, 55:732-5, June 27, 1942.

Bulletins

- Annual Report of the Bureau of Co-Operation with Educational Institutions, June 30, 1949. Published by the University, Ann Arbor, Michigan.
- Annual Report of the Bureau of School Services, June 30, 1950. Published by the University, Ann Arbor, Michigan.
- Michigan High School Athletic Association Bulletin, Vol. 27, No. 4 S, November, 1950. Lansing: Department of Public Instruction.
- Michigan State College Catalogs, for all years from 1900 to 1951. East Lansing: Michigan State College.
- Odell, Charles W., "Conservation of Intelligence in Illinois High Schools," Bureau of Educational Research Bulletin No. 22, University of Illinois, Urbana, 1935. 55 pp.
- Student Directory, 1949-1950. East Lansing: Michigan State College.
- Student Directory, 1950-1951. East Lansing: Michigan State College.

Secondary Sources

Books

- Chamberlin, Dean, Enid Chamberlin, and Others, Did They Succeed in College? New York: Harper and Brothers, 1943.
- Education for All American Youth. Education Policies Commission. Washington: National Education Association, 1944. 421 pp.
- Faunce, Roland C., Some Went to College. Michigan Study of Secondary School Curriculum, Lansing: Michigan Department of Public Instruction, 1945. 42 pp.
- Goulden, Cyril H., Methods of Statistical Analysis. New York: John Wiley and Sons, Inc., 1939. 272 pp.
- Koopman, G. Robert, Alice Miel, and Paul J. Misner, Democracy in School Administration. New York: D. Appleton-Century Company, Inc., 1943. 330 pp.

MacPhail, Andrew Hamilton, The Intelligence of College Students. Baltimore: Warwick and Your, Inc., 1924.

Snedecor, George W., Statistical Methods. Ames, Iowa: The Iowa State College Press, 1946. 476 pp.

Theses

Barber, Leroy E., "Why Some Able High School Graduates Do Not Go to College." Unpublished Doctor's dissertation, University of Pittsburgh, Pittsburgh, 1949.

Barker, Richard W., "The Educational and Vocational Careers of High School Graduates Immediately Following Graduation in Relation to Their Scholastic Abilities." Unpublished Master's thesis, University of Iowa, Iowa City, 1937.

Blyth, Mary Isobel, "The Competence of College Algebra Students Who Studied High School Algebra." Unpublished Doctor's dissertation, University of Michigan, Ann Arbor, 1950.

Campbell, James, "An Analysis of Factors Related to the Scholastic Success of Freshmen Engineering Students at Cornell University." Unpublished Doctor's dissertation, Cornell University, Ithaca, 1949.

Clarke, Corcoran Frederick, "The Relationship of Science Deficiencies to Subsequent Academic Progress in the School of Engineering at Michigan State College of Agriculture and Applied Science." Unpublished Doctor's dissertation, Michigan State College, East Lansing, 1948.

Dahnke, Harold L., "Analysis of the Testing Program in the Department of Effective Living, Michigan State College." Unpublished Doctor's dissertation, Western Reserve University, Cleveland, 1950.

Davison, Hugo M., "Factors in the Scholastic Ability of College Freshmen." Unpublished Doctor's dissertation, Harvard University, Cambridge, 1949.

Ely, Wayne H., "The Scholastic Success of Students From Small High Schools Versus Students from Large High Schools," Unpublished Master's thesis, Indiana State Teachers' College, Terre Haute, 1929.

- Garrett, Harley F., "A Review and Interpretation of Investigations of Factors Related to Scholastic Success in Colleges of Arts and Sciences and Teachers' Colleges." Unpublished Doctor's dissertation, University of Colorado, Boulder, 1948.
- Harriger, Guy N., "The College Preparatory Curriculum as an Instrument of Educational Guidance." Unpublished Doctor's dissertation, University of Pittsburgh, Pittsburgh, 1947.
- Hill, Guy H., "A Study of the Difficulties of Beginning High School Teachers in Michigan." Unpublished Doctor's Dissertation, University of Michigan, Ann Arbor, 1946.
- Prator, Ralph, "Administration of Admission to Colleges and Universities." Unpublished Doctor's dissertation, University of California, Berkeley, 1947.
- Price, Henry V., "An Analysis of a Group of Pre-Tests for Students of First Year College Mathematics." Unpublished Doctor's dissertation, University of Iowa, Iowa City, 1941.
- Ryan, Suler E., "Some Characteristics of the 1948 Freshman Class at the University of Missouri and the Relation of These Characteristics to Academic Success." Unpublished Doctor's dissertation, University of Missouri, Columbia, 1949.
- Scott, Don Averill, "The Scholastic Ability of Iowa High School Graduates in Relation to Their Intended Educational, Vocational, and Professional Careers and to the Institutions of Higher Education They Plan to Attend." Unpublished Doctor's dissertation, University of Iowa, Iowa City, 1935.
- Sheldon, William, "A Study of College Students With Scholastic Difficulties." Unpublished Doctor's dissertation, Syracuse University, Syracuse, 1948.
- Solomon, Lewis E., "Some Relationships Between Reading Ability and Degree of Academic Success in College." Unpublished Doctor's dissertation, University of Colorado, Boulder, 1944.

Ullsvik, Bjarm R., "A Factor Analysis and Prognosis of the Scholastic Success of Freshman Engineers During Their First Semester at the University of Wisconsin." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1944.

Walker, Ernest T., "The Relation of the Housing and Success of Students in a University." Unpublished Doctor's dissertation, University of Chicago, Chicago, 1935.

Periodicals

Barnes, Richard A., "Is High School Adequate Preparation for College?", School and Society, 55:649-651, June 6, 1942.

Beckman, R. O., "Scale for Gauging Occupational Rank," Personnel Journal, 13:225-33, 1934.

Butts, Porter, "Some Implications of Housing," Journal of Higher Education, Nos. 1 and 2, 8:31-32, January and February, 1937.

Carter, T. M., "Effect of College Fraternities on Scholarship," Journal of Applied Psychology, 18:398-400, June, 1934.

Dressel, Paul S., "Effect of the High School on College Grades," Journal of Educational Psychology, 30:602-17, November, 1939.

Harris, E. P., "Factors Affecting College Grades," Psychological Bulletin, 37:125-66, May, 1940.

Jorgensen, A. W., "A Comparison of Rural and Urban Children," Wisconsin Journal of Education, 5:241-3, January, 1939.

"Library Fellowships at the University of Chicago," School and Society, 57:42, January 9, 1943.

Miller, W. S., "The Administrative Use of Intelligence Tests in High Schools," Twenty-first Yearbook of the National Society for the Study of Education, 1922, Part II, pp. 189-222.

"New Scholarships Offered at the University of Chicago," School and Society, 57:594, May 22, 1943.

Peterson, Basil H., "The Scholarship of Students Housed in Various Living Quarters," School and Society, 57: 221-224, February 20, 1943.

Report of Sub-Committee of Committee on Student Ability, Leland Stanford Junior University. University Press, Stanford University, Palo Alto, 1923. 37 pp.

"Scholarships at the Drexel Institute of Technology," School and Society, 59:109, February 12, 1944.

"State Scholarships for Prospective Teachers in Illinois go Begging," School and Society, 64:6, July 6, 1946.

Travers, Robert M. W., and Norman E. Gronlund, "The Meaning of Marks," Journal of Higher Education, 21:369-74, October, 1950.

"University-Scholarship Examinations," School and Society, 57:151, February 6, 1943.

APPENDIX

APPENDIX A

MICHIGAN STATE COLLEGE
ENTRANCE SCHOLARSHIP CERTIFICATE



THIS IS TO CERTIFY THAT

HAS BEEN AWARDED AN ENTRANCE SCHOLARSHIP TO MICHIGAN STATE COLLEGE FOR THE
YEAR 195____ - 195____

THIS SCHOLARSHIP WAIVES TUITION CHARGES AND IS RENEWABLE YEARLY FOR THREE ADDI-
TIONAL YEARS UPON SUCCESSFUL PERFORMANCE IN COLLEGE.

WE HOPE YOU WILL ACCEPT THIS SCHOLARSHIP AS AN OPPORTUNITY AND AS A CHALLENGE.

CHAIRMAN, FACULTY COMMITTEE ON SCHOLARSHIPS

Date_____195____



APPENDIX B
MICHIGAN STATE COLLEGE
EAST LANSING

COMMITTEE ON SCHOLARSHIPS
A. J. CLARK, CHAIRMAN

The Scholarship Committee of Michigan State College has just completed its survey and study of the records of nearly one thousand high school seniors who have made application for Michigan State College Entrance Scholarships.

We wish it were within our province to recognize and reward each applicant with a scholarship, but we had only one scholarship per school with a small number to distribute at large, and hence, it meant selecting those young people who seemed to offer the greatest promise of development.

We are happy to announce that you are one of those chosen for a scholarship. We congratulate you upon being selected.

As you know, the scholarship will pay your course fee of \$141 for the first year. If you earn at least a 2.6 honor point average for the year, the scholarship will be renewed for another year and may be continued on the same basis for the full four years.

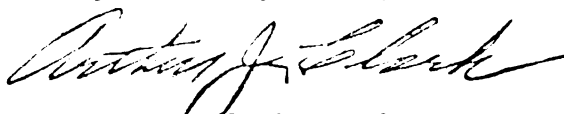
The scholarship will be available if you enter at the coming Spring, Summer, or Fall quarter.

Let us know immediately if you accept the scholarship. This is important because if you do not accept we can then award it to some one else. Also, let us know which term you expect to enroll so we may place your name on the proper scholarship list.

If you accept, nothing further need be done about the scholarship until you appear for registration. At registration time, present this letter at the scholarship desk to receive credit for your course fee.

Trusting the scholarship will be a valuable aid toward your college education, I remain

Very sincerely yours,



Arthur J. Clark, Chairman
Faculty Committee on Scholarships

8

NOTE: You must also file application for admission to the college with the Registrar. Your principal has the necessary blanks.

APPENDIX C

Michigan State College
East Lansing Mich

July 5, 1950

To Cancellation student:

You have held an Entrance scholarship during the past year, but upon examination of your scholastic record we regret to find that you have not met the requirements for a continuation of this scholarship. I am sorry to have to inform you that the scholarship will not be continued for the college year 1950-51.

Very sincerely yours,

Arthur J. Clark, Chairman
Faculty Committee
on Scholarships

copy

Student number _____ Index _____

Home town _____ Age _____ Sex _____ Marital status _____

Father living? _____ Mother living? _____ Parents divorced? _____

Father's occupation _____ Mother's occupation _____

Parents combined monthly income _____

What influences led you to M S G? _____

School applied for: Agri _____ Bus Pub Ser _____ Engin _____

Home Ec _____ Sci Arts _____ Vet Med _____ Basic _____

High School attended _____ located at _____

School accredited by _____

Course pursued in HS : Col Prep _____ Col Agree _____ Non-col _____

Rank _____ in a class of _____

Student expected to be: Excol, Satis, Average, Inferior, Failure

Grade average required for recommendation to college _____

Recommendation : clear _____ with exams _____ not recommended _____

Groups I II III IV V VI VII Total Avg

Credits ($\frac{1}{2}$)

Points

Deficiencies _____

Did student work while in high school _____ hours per week? _____

Extraclass activities in high school: Drama _____ Athletics _____

Music _____ Gov't _____ Social _____ Journ _____ 4-H _____ Others _____

Any illness which handicapped student in high school? _____

Trait Very low Low Avg Fairly high High Very high

| | | | | | | | |
|-----------------|--|--|--|--|--|--|--|
| Intell capacity | | | | | | | |
| Intell perform | | | | | | | |
| Seriousness | | | | | | | |
| Originality | | | | | | | |
| Tractability | | | | | | | |
| Social minded | | | | | | | |
| Independence | | | | | | | |
| Popularity | | | | | | | |

rter _____ Year _____
 iculum _____
 ent Number _____
 p. Appr. sent _____

MICHIGAN STATE COLLEGE

EAST LANSING, MICHIGAN

APPLICATION FOR ADMISSION

Application may be submitted after first semester of senior year's work is completed.

GENERAL INFORMATION

The *Basic College* has been established as an educational unit in which all students will be enrolled during their freshman and sophomore years.

The *Basic College* is designed to provide students with a sound educational foundation on which to build an intelligent interest in personal, family, vocational, social, and civic problems, a better understanding of these problems, and a greater ability to cope with them. It includes the study of man's relationship to physical, biological, and social sciences, an increased knowledge of the historical background of present-day civilizations, and an enhanced appreciation of cultures, past and present, that have been expressed in literature, music and art.

Students whose training may eventually become highly specialized need this foundation of general educational experience that each may have a greater appreciation of the relationship of his special field to the needs of society as a whole. Specialization for the Bachelor's degree is completed in the appropriate school. (For requirements for admission, see page 9.)

INSTRUCTIONS

Pages 1, 2, 3, and 5 of this blank are to be filled out by the applicant in ink; the entire blank is then to be referred to the principal of the high school from which the applicant graduated, who will fill out the remaining pages and forward the entire blank to the office of the Registrar.

1. Name in full _____
 (Last) (First) (Middle) ☐ Mr. ☐ Mrs. ☐ Miss Date _____

2. Permanent home address _____
 (Number and street) (City) (State)

3. Mailing address _____
 (If different from home address) (Street and number) (City) (State) (Last date you will be here)

4. (a) Birthplace _____ Date of Birth _____
 (Month) (Day) (Year) Are you a U.S. citizen? _____

(b) Are you a resident of Michigan? ☐ Yes—number of months _____, No ☐ (See residence regulations, page 10)

5. (a) Single _____ Married _____ Do you have children? _____ Number _____ Husband's or wife's full name _____

(b) Have you had experience in the Armed forces? ☐ Yes ☐ No Total months in service _____ Branch of Service _____

(c) Type of discharge _____ Rank when discharged _____ Entrance date _____ Discharge date _____

6. High School _____
 (Name of High School) (Location) (Date of Graduation)

7. (a) Have you at any time applied for admission to Michigan State College or to any other college or university? _____ If so, give name of institution and full details of the outcome of your application _____

(b) Have you attended any college or university? _____ If so, give name and location of the institution, dates of attendance, and reason for withdrawal _____

(c) If you have attended another college, ask the registrar to send a transcript of your record or a statement of honorable dismissal if no credit was earned to: Registrar, Michigan State College, East Lansing, Michigan.

(d) Have you previously attended Michigan State College? ☐ Yes ☐ No When _____ Term _____ Year _____
☐ Regular College Program
☐ Short Course
☐ Extension
☐ Armed Forces Program

8. When do you expect to enter Michigan State College? ☐ Fall ☐ Winter ☐ Spring ☐ Summer. Year _____

9a. (1) Father's full name: _____
 (Last) (First) (Middle) (2) Living? _____ (3) Is he an American citizen? _____

9b. (1) Mother's full name: _____
 (Last) (First) (Middle) (2) Living? _____ (3) Is she an American citizen? _____

(4) Occupation _____ (4) Occupation _____

9c. If you have a Legal Guardian or Step-parents, give name _____
 Address _____ Relationship to you _____
 (Street and Number) (City and State)

10. If you have worked since graduation from high school, state positions held and the dates of each term of employment
11. Give names, addresses and occupations of at least two responsible adult persons (not your former school teachers or officers, or relatives) as references
12. What influences led you to come to this College?
13. Do you expect to complete ☐ requirements for a degree?
☐ the two-year terminal course only?

14. Check your preference (check one):

SCHOOL OF AGRICULTURE

- ☐ General Agriculture (*Agricultural Economics, Agricultural Extension, Animal Husbandry, Dairy Production, Farm Crops, Poultry Husbandry, Pre-Theology, Rural Sociology and Anthropology or Soil Science.*)

- ☐ Agricultural Education (*Teaching*)

Agricultural Engineering Series:

- ☐ Agricultural Mechanics
☐ Agricultural Engineering

Dairy Series:

- ☐ Dairy Production
☐ Dairy Manufactures
☐ Food Technology

Horticultural Series:

- ☐ Floriculture
☐ Ornamental Horticulture
☐ Pomology
☐ Vegetable Production

Landscape Series:

- ☐ Landscape Architecture
☐ Urban Planning

Conservation:

- ☐ Fisheries and Wildlife
☐ Forestry
☐ Wood Utilization
☐ Light Construction and Lumber Merchandising
☐ Conservation
☐ Municipal Forestry

SCHOOL OF BUSINESS AND PUBLIC SERVICE

Division of Business:

- ☐ Accounting
☐ General Business
☐ Food Distribution
☐ Business Education and Secretarial Studies
☐ 2 Yr. Terminal in General Business
☐ 2 Yr. Terminal in Insurance
☐ 2 Yr. Terminal in Retailing
☐ 2 Yr. Terminal in Secretarial Science

Division of Hotel, Restaurant and General Institutional Management

- ☐ Economics
☐ Journalism
☐ Physical Education
☐ Recreation Education

Police Administration:

- ☐ General
☐ Police Science
☐ Crime Prevention

Political Science and Public Administration:

- ☐ Political Science
☐ Public Administration
☐ Public Management
☐ Social Service

SCHOOL OF ENGINEERING

- ☐ Agricultural
☐ Chemical
☐ Civil
☐ Electrical
☐ Mechanical
☐ Metallurgical
☐ Sanitary

SCHOOL OF HOME ECONOMICS

- ☐ Child Development
☐ Clothing and Textiles
☐ Foods
☐ Nutrition
☐ General
☐ Home Economics and Nursing
☐ Institution Administration
☐ Related Arts
☐ Teaching in Home Economics
☐ 2 Yr. Terminal in Home Economics
☐ 2 Yr. Terminal in Retail Merchandising

SCHOOL OF SCIENCE AND ARTS (Check Major Field)

Fine Arts:

- ☐ Art
☐ Applied Music
☐ Music Major
☐ Music Theory
☐ Musical Therapy
☐ Public School Music

Education (*Teaching*):

- ☐ Elementary
☐ Industrial Arts
☐ Secondary (*Check Major Field Also*)

Language and Literature:

- ☐ English
☐ Foreign Languages—
☐ Literature
☐ Speech, Dramatics and Radio

- check one:
☐ French
☐ German
☐ Latin
☐ Spanish

SCHOOL OF SCIENCE AND ARTS (Continued)

(Check Major Field)

Biological Science:

- ☐ Bacteriology
☐ Botany
☐ Entomology
☐ Physiology
☐ Zoology

Nursing Education

Physical Science:

- ☐ Chemistry
☐ Geography
☐ Geology
☐ Mathematics
☐ Physics and Astronomy

Social Science:

- ☐ Foreign Studies
☐ History
☐ Philosophy
☐ Psychology
☐ Sociology

Pre-Professional:

- ☐ Dental
☐ Law
☐ Medical

SCHOOL OF VETERINARY MEDICINE

- ☐ Pre-Veterinary Medicine
☐ Veterinary Medicine
☐ Medical Technology

BASIC COLLEGE

- ☐ No Preference (*Undecided on Major*)

IMPORTANT

Write your name on the back of a small unmounted photograph or snapshot of yourself and attach here. Pictures will not be returned.

Application will be considered incomplete if photograph is omitted.

THIS IS REQUIRED OF
EVERY APPLICANT

Name _____ Date of Birth _____
 (Last Name) (First Name) (Middle Name) (Month) (Day) (Year)

Single..... Married Do you have any children? Number

- | | | | | | | | | | | | | | | | | | |
|--|--------------|-------------|-------------|--------|--|--|--|-------------|---|--------------|-------------|-----------|--------|--|--|--|-------------|
| <p>1. (a) Father's name Last First Middle</p> <p>(b) Father's occupation</p> <p>(c) Father's education (check if a graduate; otherwise give number of years in attendance):</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Grade school</td> <td style="width: 33%;">High school</td> <td style="width: 33%;">College {</td> <td>M.S.C.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Other</td> </tr> </table> | Grade school | High school | College { | M.S.C. | | | | Other | <p>(d) Mother's name Last First Middle</p> <p>(e) Mother's occupation (if wage earner)</p> <p>(f) Mother's education, (check if a graduate; otherwise give number of years in attendance):</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Grade school</td> <td style="width: 33%;">High school</td> <td style="width: 33%;">College {</td> <td>M.S.C.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Other</td> </tr> </table> | Grade school | High school | College { | M.S.C. | | | | Other |
| Grade school | High school | College { | M.S.C. | | | | | | | | | | | | | | |
| | | | Other | | | | | | | | | | | | | | |
| Grade school | High school | College { | M.S.C. | | | | | | | | | | | | | | |
| | | | Other | | | | | | | | | | | | | | |

3. (a) Have you contributed toward your support while in high school? . . .

(b) Have you been employed since graduation? How long and at what work?

4. (a) In what subject do you expect to specialize in college? Do you plan to teach?

(b) Name high school subjects you liked best

(c) List any particular honors, prizes, other special awards for scholarship obtained in high school

5. (a) Make a complete list of the sports and other extra-curricular school activities in which you participated in high school

(b) What special recognition, if any, have you received in any of these activities?

(c) Which, if any of these activities do you intend to continue in College?

6. What do you look forward to as a life work?

7. What are your plans for financing your college course during the first year?

8. If one year or more has passed since your graduation from high school, state whether or not and how your attitude towards higher education has changed

9. State condition of general health, naming any illness which may have handicapped you while in high school

10. Do you have periods of unconsciousness, convulsions, epilepsy, or fainting spells?.....

(Confidential)

CANDIDATE'S PERSONAL QUALIFICATIONS

(To be filled out by the high school counselor, principal, or superintendent.
This sheet will be placed in the hands of the student's college Counselor.

1. To the high school official:

(a) Please indicate your judgment of the candidate by placing check marks on the scale of ratings given below.

(b) If a rating on any trait is omitted, it will be understood that you do not have sufficient knowledge of the candidate to express judgment. Such omissions will not put the candidate at a disadvantage.

| Trait | Very low | Low | Average | Fairly high | High | Very high |
|---------------------------------|----------|-----|---------|-------------|------|-----------|
| Potential intellectual capacity | | | | | | |
| Actual intellectual performance | | | | | | |
| Seriousness of purpose | | | | | | |
| Originality | | | | | | |
| Tractability | | | | | | |
| Social-mindedness | | | | | | |
| Independence of effort | | | | | | |
| Popularity | | | | | | |

2. If candidate took tests, please give:

| Name of Test | Date Given | Percentile | Norm Group | Remarks |
|--------------|------------|------------|------------|---------|
| | | | | |
| | | | | |

3. General rank in class (check one): (Best 25%) (Second 25%) (Third 25%) (Poorest 25%)

4. (a) Has the applicant any defect of speech, sight or hearing?

(b) Is the applicant subject to periods of unconsciousness, convulsions, epilepsy, or fainting spells?

5. State any other defects or qualities which are not covered by above

6. To what degree did the candidate's attitude towards scholastic work and application to academic subjects change during the

last year or two in high school?

7. Describe any particular circumstances of the candidate's environment, personality, or fortunes of life that may have been

influential in determining the record made in high school

8. Give any additional information which you think will be of value to us in understanding and guiding the candidate

Date

Signature

Title

(To be completed by applicant)

On this page, please *write a short story of your life*. We suggest that you include why you want a college education, your travels or experiences, interests in sports, hobbies, or plans for the future. Please include a statement on any illnesses or physical disabilities. (This story of your life is to be entirely original and in your own handwriting. It will be used by counselors and admission officers only.)

Your Signature

HIGH SCHOOL RECORD AND CERTIFICATE OF RECOMMENDATION

(Confidential)

Do not mail application to Registrar's Office until 12 B grades are recorded. Please make certain page 4 has also been completed.

1. High School Located at

2. (a) By what recognized accrediting associations is your school accredited?

(b) Is your school a member of the Michigan Secondary School-College Agreement? ☐ Yes
☐ No3. Student's name
(Last) (First) (Middle)4. Date of graduation from (check one) ☐ College Preparatory Course
☐ Michigan Special Program under "College Agreement Plan"
☐ Non-college Preparatory Course

5. (a) Years in attendance

(b) Names of and years in attendance at other high schools, if any, which candidate attended and from which credits were accepted
.....
.....

6. Has a statement of the applicant's credits been submitted to any other college or university? If so, when and to what school?

7. If candidate took tests, please give: (If given in page 4, omit here)

| Name of Test | Date Given | Percentile | Norm Group | Remarks |
|--------------|------------|------------|------------|---------|
| | | | | |
| | | | | |

8. (a) Number in candidate's graduation class (b) Applicant's rank in class (e.g.—highest, 1; second highest, 2)

(c) General rank in class (check one): (Best 25%) (Second 25%) (Third 25%) (Poorest 25%)

9. Check the group under which you think the scholastic record of the applicant may be expected to fall:

☐ Excellent ☐ Superior ☐ Average ☐ Inferior ☐ Probable Failure

10. Grade average or rank required for recommendation to College

11. Principal or Superintendent please check and sign the following:

I hereby certify that the following transcript is a true copy of the applicant's record

and (check one) ☐ 1.) do officially recommend admission to Michigan State College as checked: ☐ Clear. ☐ With examinations
☐ 2.) do not officially recommend admission to Michigan State College.

Date

Principal or Superintendent

Note: Marked improvement during the junior and senior years and sometimes a great enough improvement in the senior year may indicate that a pupil is ready to undertake college work even though the total average may not meet the standard required for clear recommendation to college.

(Do Not Write on This Page)

Student's name _____

| Unit Value | STUDIES | Year Taken (I, II, III, IV) | No. of Weeks Pursued | No. of Hours Per Week | Grades | |
|------------|---------------------|--------------------------------|----------------------|-----------------------|--------|--------|
| | | | | | School | Regent |
| | ENGLISH: | | | | | |
| | First Year | | | | | |
| | Second Year | | | | | |
| | Third Year | | | | | |
| | Fourth Year | | | | | |
| | LATIN: | | | | | |
| | First Year | | | | | |
| | Second Year | | | | | |
| | Third Year | | | | | |
| | Fourth Year | | | | | |
| | FRENCH: | | | | | |
| | First Year | | | | | |
| | Second Year | | | | | |
| | Third Year | | | | | |
| | Fourth Year | | | | | |
| | GERMAN: | | | | | |
| | First Year | | | | | |
| | Second Year | | | | | |
| | Third Year | | | | | |
| | Fourth Year | | | | | |
| | SPANISH: | | | | | |
| | First Year | | | | | |
| | Second Year | | | | | |
| | MATHEMATICS: | | | | | |
| | Algebra, First Yr. | | | | | |
| | Algebra, Second Yr. | | | | | |
| | Geometry, Plane | | | | | |
| | Geometry, Solid | | | | | |
| | Trigonometry | | | | | |
| | | Lec. | | | | |
| | PHYSICS | Lab. | | | | |
| | | Lec. | | | | |
| | CHEMISTRY | Lab. | | | | |
| | | Lec. | | | | |
| | BIOLOGY | Lab. | | | | |
| | | Lec. | | | | |
| | ADV. BIOLOGY | Lab. | | | | |
| | | Lec. | | | | |
| | BOTANY | Lab. | | | | |
| | | Lec. | | | | |
| | ZOOLOGY | Lab. | | | | |
| | | Lec. | | | | |
| | GEOLOGY | Lab. | | | | |
| | | Lec. | | | | |
| | PHYSIOLOGY | Lab. | | | | |
| | HISTORY: | | | | | |
| | Ancient | | | | | |
| | World | | | | | |
| | European | | | | | |
| | United States | | | | | |
| | English | | | | | |
| | ECONOMICS: | | | | | |
| | AMERICAN GOV'T. | | | | | |
| | GEOGRAPHY: | | | | | |
| | SOCIOLOGY: | | | | | |
| | CIVICS: | | | | | |
| | SOCIAL PROBLEMS: | | | | | |

Passing grade of school _____

Grading system (give numerical equivalents of letters, when letters are used).

Length of Recitation Period _____

Length of Laboratory Period _____

Specify by (FG) any subjects taken subsequent to graduation.

Curriculum desired

☐ Degree Curriculum
☐ Two Year Terminal

English _____ Speech _____ Journ. _____ Dramatics _____ GROUP: _____

GROUP:

Latin.....French.....German.....Spanish.....

GROUP:.....

GROUP: _____

Algebra _____ Pl. Geom. _____ Sol. Geom. _____ Trig. _____ Other Math _____ GROUP: _____

Physics _____ Chem. _____ Biology _____ Botany _____ Zool. _____ Geol. _____ Physiol. _____ Gen. Sci. _____ GROUP: _____

History _____ Econ. _____ Am. Govt. _____ Geog. _____ Sociol. _____ Civ. _____ Social Prob. _____ GROUP: _____

GROUP:.....

Agricult. _____ Home Ec. _____ Com'l _____ Indust. _____ Music _____ GROUP: _____

MISC.

Total Cr.

Conditions or deficiencies.....

Transcript(s) received from

1. Approved pending final semester's grade _____ Date _____
Name of person checking units _____

Final grades ok—Admission approved _____ Date _____
Name of person checking final grades _____

2. Admission approved (record complete) _____ Date _____
Name of person checking units _____

3. Admission NOT approved _____ Date _____
Name of person checking units _____

Remarks:

APPLICATION
Undergraduate Entrance Scholarship

Date.....19.....

10. If not, how do you propose to pay them.....

11. State in detail the activities in which you have taken part, such as representing your school in interscholastic contests, sports, editorships, entertainments, and offices of responsibility. Indicate any special recognition received.....

12. Two letters of recommendation are required. Request two people who are competent to evaluate you as a citizen and as a student, to send letters of recommendation to the Chairman of the Faculty Committee on Scholarships, 323 Administration Building.

Attach a small unmounted photograph of yourself. This application will be considered incomplete if photograph is omitted.

Write your name on the back of the photograph. Photographs will not be returned.

NOTICE TO APPLICANT:

Have you already filed an application for admission to Michigan State College with the Registrar? If not, see your Principal about this immediately.

You will be notified of the decision of the Faculty Committee on Scholarships shortly after April 1.

NOTE: The balance of this application is to be filled out by the principal or a person delegated by him and is to be treated as confidential information.

(Superintendent or Principal)

Passing grade of school _____

Grading system (give numerical equivalents of letters, when letters are used.) _____

Length of Recitation Period _____

Length of Laboratory Period _____

Specify by (PG) any subjects taken subsequent to graduation.

*Mark (L) any studies occupying double periods.

High School.....Location.....

Number of students in senior class.....

Give approximate position of applicant in class.....

Kindly check following points regarding the candidate:

1. Independent and thorough worker ☐ Excellent ☐ Good ☐ Fair ☐ Poor
2. General citizenship ☐ Excellent ☐ Good ☐ Fair ☐ Poor
3. Financial need ☐ Great ☐ Not too great ☐ Apparently no Need

Signed.....

Position.....

Please hold applications from your school until all are in your hands and then send them to the address below:

Chairman of Faculty Committee on Scholarships
Room 323, Administration Building
Michigan State College
East Lansing, Michigan

All applications must be filed with the Committee not later than **March 1** of the year of the award.

| | |
|--|--|
| | Number |
| | Name |
| | Local Address |
| | Home Town |
| | Age |
| | Marital status |
| | Sex |
| | Father living |
| | Mother living |
| | Parents divorced |
| | Father's Business |
| | Mother's Occupation |
| | Parent's combined monthly income |
| | Reasons for selecting M S C |
| | Did you return as a Sophomore? |
| | Course taken in high school |
| | Type of recommendation by high school principal |
| | School accredited by |
| | U of M N C A |
| | School enrolled in |
| | Agri. Service Engineering Home Economics Science and Arts Vet. Medicine Basic College |
| | Rank in graduating class |
| | Number of high school graduates |
| | Size of high school A, B, C, D, or E |
| | Ex. Principal's Sat. opinion re- Avg. grading type of Inf. college work Fail. |
| | Grade required for recommendation to High school college average |
| | I. High II. school III. marks IV. V. VI. VII. |
| | Drama High Ath. school Music activities Gov't. Social Journ. 4-E |
| | Place of residence |
| | College major |
| | Number of credits earned |
| | Number of honor points earned |
| | Grade point average |
| | Scores on the Psychological examination |
| | 111 |
| | 121 Marks in |
| | 131 basic |
| | 141 courses |
| | 151 |
| | 161 |
| | 171 |
| | Gains or losses in re marking system |
| | Courses in which students obtained D's or F's |

229

229

229

APPENDIX H

DISTRIBUTION OF AVERAGES IN HIGH SCHOOL SUBJECT AREAS

The Cancellation Group

| AREAS | A | A- | B+ | B | B- | C+ | C | C- | D+ | D |
|------------|-----|----|-----|----|----|-----|----|----|----|---|
| Eng. I | 35 | 14 | 23 | 61 | 4 | 6 | 14 | 0 | 0 | 0 |
| Lang. II | 30 | 0 | 11 | 36 | 4 | 8 | 12 | 0 | 2 | 1 |
| Math. III | 24 | 3 | 24 | 70 | 3 | 12 | 16 | 1 | 1 | 2 |
| P. Sci. IV | 24 | 2 | 27 | 68 | 6 | 12 | 16 | 1 | 0 | 0 |
| S. Sci. V | 41 | 7 | 28 | 56 | 7 | 6 | 7 | 1 | 0 | 0 |
| Voc. VI | 51 | 9 | 29 | 38 | 4 | 9 | 7 | 1 | 0 | 0 |
| Misc. VII | 31 | 6 | 12 | 39 | 1 | 2 | 3 | 1 | 0 | 0 |
| Totals | 277 | | 551 | | | 135 | | | 6 | |

DISTRIBUTION OF AVERAGES IN HIGH SCHOOL SUBJECT AREAS

The Renewal Group

| AREAS | A | A- | B+ | B | B- | C+ | C | C- | D+ | D |
|------------|-----|----|-----|----|----|----|---|----|----|---|
| Eng. I | 97 | 17 | 24 | 50 | 2 | 4 | 1 | 0 | 0 | 0 |
| Lang. II | 79 | 8 | 28 | 40 | 1 | 4 | 4 | 0 | 0 | 0 |
| Math. III | 79 | 10 | 46 | 47 | 3 | 5 | 3 | 0 | 0 | 0 |
| P. Sci. IV | 77 | 12 | 37 | 63 | 3 | 4 | 0 | 0 | 1 | 1 |
| S. Sci. V | 106 | 19 | 26 | 39 | 1 | 1 | 1 | 2 | 0 | 0 |
| Voc. VI | 98 | 14 | 23 | 39 | 0 | 4 | 4 | 0 | 0 | 0 |
| Misc. VII | 69 | 3 | 13 | 30 | 0 | 1 | 4 | 0 | 0 | 0 |
| Totals | 688 | | 513 | | | 42 | | | 5 | |

DISTRIBUTION OF AVERAGES IN HIGH SCHOOL SUBJECT AREAS

The Withdrawal Group

| AREAS | A | A- | B+ | B | B- | C+ | C | C- | D+ | D |
|------------|----|----|-----|----|----|----|---|----|----|---|
| Eng. I | 12 | 0 | 2 | 15 | 0 | 1 | 3 | 0 | 0 | 0 |
| Lang. II | 3 | 0 | 4 | 10 | 0 | 1 | 4 | 0 | 0 | 0 |
| Math. III | 7 | 1 | 6 | 12 | 1 | 1 | 5 | 0 | 0 | 0 |
| P. Sci. IV | 6 | 1 | 5 | 16 | 0 | 1 | 3 | 1 | 0 | 0 |
| S. Sci. V | 17 | 1 | 2 | 11 | 0 | 1 | 1 | 0 | 0 | 0 |
| Voc. VI | 7 | 1 | 17 | 5 | 0 | 1 | 1 | 0 | 0 | 0 |
| Misc. VII | 10 | 0 | 5 | 4 | 0 | 1 | 1 | 0 | 0 | 0 |
| Totals | 66 | | 115 | | 26 | | 0 | | | |

DISTRIBUTION OF AVERAGES IN HIGH SCHOOL SUBJECT AREAS

The Regular Group

| AREAS | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | F |
|------------|-----|----|-----|----|-----|----|----|----|----|----|----|---|
| Eng. I | 16 | 13 | 14 | 59 | 8 | 23 | 50 | 3 | 4 | 4 | 1 | 1 |
| Lang. II | 13 | 4 | 12 | 22 | 9 | 13 | 34 | 7 | 5 | 8 | 3 | 1 |
| Math. III | 12 | 4 | 16 | 37 | 10 | 23 | 57 | 5 | 15 | 13 | 3 | 0 |
| P. Sci. IV | 13 | 2 | 6 | 52 | 13 | 30 | 46 | 7 | 7 | 15 | 1 | 1 |
| S. Sci. V | 16 | 9 | 19 | 64 | 11 | 17 | 32 | 7 | 4 | 7 | 0 | 0 |
| Voc. VI | 22 | 9 | 20 | 74 | 5 | 17 | 29 | 5 | 1 | 4 | 0 | 0 |
| Misc. VII | 33 | 2 | 16 | 46 | 7 | 8 | 22 | 2 | 0 | 0 | 0 | 0 |
| Totals | 168 | | 498 | | 427 | | 98 | | | | | |

10

11

12

13

14

15

16

17

18

19

20

•

•

•

•

•

•

•

•

•

•

•

•

•

•

•

•

•

•

APPENDIX I

210 Ferguson Street
Lansing 12 Michigan
December 26 1950

Dear fellow-student:

During the academic year 1949-1950 you were a student at Michigan State College studying under a tuition-free scholarship. Nearly 40 per cent of those admitted on the entrance scholarship did not maintain an academic record high enough to have the scholarship renewed.

I am interested in the causes for these scholarship cancellations to the extent that I would like to make this study the dissertation for a doctor's degree. You can help me and at the same time render a service to the college and to future scholarship students if you will kindly answer and return the enclosed questionnaire promptly.

I intend to send this questionnaire to about 200 students but before I put it in final form I have decided to give it a trial run. I'm sending it now to 12 students to see what changes must be made before I write it in final form.

I would appreciate your fullest co-operation. Feel free to write comments where the questions are faulty or unimportant and add suggestions if you see ways to improve the value of the questionnaire.

Thanking you in advance, I remain

Yours truly

Marvin C Volpel
Dept of Mathematics

APPENDIX J

The Questionnaire

1. Was the whole program of your high school sufficient to prepare one for college?
Yes____ No____
2. Do you feel that your high school preparation was adequate to meet the demands made on college freshmen?
Yes____ No____
3. Do you think that you, personally, were prepared for college?
Yes____ No____
4. Was the size of your school a handicap to your academic success as a college freshmen?
Yes____ No____
5. Did you receive adequate educational guidance in high school?
Yes____ No____
6. Did your parents help you plan your educational program?
Yes____ No____
7. Are your parents in sympathy with your plans for a college education?
Yes____ No____
8. In what areas was your high school program strong?
9. In what areas was your high school program weak?
10. Did you have a regular study program last year?
Yes____ No____
11. Did you make use of the counseling service last year?
Yes____ No____
12. If so, for what purpose?
13. Did you study much during the day time?
Yes____ No____

14. Did you make use of the library for study purposes?
Yes_____ No_____
15. Did you consult your instructors for extra help?
Yes_____ No_____
16. Were there any outside influences which handicapped your college work?
Yes_____ No_____
17. If so, what were they?
18. Were there any outside influences which inspired you to do better work than you would otherwise have done?
Yes_____ No_____
19. If so, what were they?
20. Was your place of residence in last year a handicap to you as far as your success in college was concerned?
Yes_____ No_____
21. If so, in what way?
22. Did you over-participate in extra-class activities to the detriment of your studies?
Yes_____ No_____
23. If so, in what areas?
24. In what particular areas (if any) could your campus life have been improved?
(a) by yourself?
(b) by the college?
25. Do you think this would have raised your scholarship average?
Yes_____ No_____
26. What more could you have done during the year to further your own academic interests?
27. Was your induction into the college program all that you had hoped it would be?
Yes_____ No_____

28. Were you properly advised regarding the qualifications for the renewal of the scholarship award?
Yes____ No____
29. Were you properly enrolled as to the variety of courses, adequate schedule of classes, hours of school work?
Yes____ No____
30. Were you notified of the cancellation in time to prevent embarrassment?
Yes____ No____
31. Did you know that you had lost the scholarship before you received the letter from the Committee?
Yes____ No____
32. Were the demands of the college instructors greater than you had anticipated?
Yes____ No____
33. Was class size any handicap to you?
Yes____ No____
34. Were you satisfied with the quality of instruction in general?
Yes____ No____
35. Were you satisfied with the regulation regarding the comprehensive examinations and the subsequent marks in the basics?
Yes____ No____
36. Was there any class or course which you let slide because of lack of interest
(a) in the subject? Yes____ No____
(b) in the instructor? Yes____ No____
(c) or because of poor instruction? Yes____ No____
37. Have you any suggestions to your high school principal?
38. Can you give any advice to this year's scholarship Freshmen?
39. What were the main reasons that you did not earn the 1.6 average last year?

210 Ferguson Street
Lansing 12 Michigan
February 12 1951

Dear fellow-student:

During the academic year 1949-50 you were a student at Michigan State College studying under a tuition-free scholarship. Nearly 40 per cent of those admitted on entrance scholarships did not maintain an academic record high enough to have the scholarship renewed.

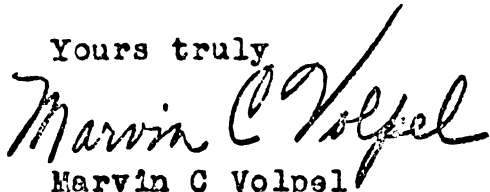
I am interested in the causes for these scholarship cancellations to the extent that I would like to make this study the dissertation for a doctor's degree. You can help me and at the same time render a service to the college and to future scholarship students if you will kindly answer and return the enclosed questionnaire promptly.

I intend to send this questionnaire to about 200 students but before I put it in final form I have decided to give it a trial run. I'm sending it now to about a dozen students to see what changes must be made before I write it in final form.

I would appreciate your fullest co-operation. Feel free to write comments where the questions are faulty or unimportant and add suggestions if you see ways to improve the value of the questionnaire.

Thanking you in advance, I remain

Yours truly

A handwritten signature in dark ink, reading "Marvin C. Volpel". The signature is written in a cursive style with a large, sweeping "M" and a long, trailing flourish at the end.

Marvin C Volpel
Department of Mathematics
Michigan State College

APPENDIX L

1. Was the total program of your high school sufficient to prepare one for college? Yes _____ No _____
2. Do you feel that you, personally, were prepared to meet the academic demands made on college freshmen? Yes _____ No _____
3. Do you think that you, personally, were prepared to cope with the problems of adjustment and responsibility demanded of college freshmen? Yes _____ No _____
4. Was the size of your school a handicap to your academic achievement as a college student? Yes _____ No _____
If so, was the school too large? _____ Or too small? _____
5. Did you receive adequate educational guidance in high school? Yes _____ No _____
6. In what areas do you consider your high school program strong?
7. In what areas do you consider that your high school program was weak?
8. Can you give any advice to this year's scholarship Freshmen which might enable them to earn a renewal of the scholarship award?
9. Did the college take adequate steps to properly orient you to college life? Yes _____ No _____
10. Were you properly enrolled with respect to the variety of courses, adequate schedule of classes, satisfactory number of hours of work, etc? Yes _____ No _____
11. If not, what was wrong?
12. Was class size in college any handicap to you? Yes _____ No _____
13. If so, what size of class? _____
14. Were you satisfied with the regulation regarding the comprehensive examinations and the subsequent marks in the basics? Yes _____ No _____
15. For how long a time previous to your entrance had you been planning to attend college?
6 yrs _____ 4 yrs _____ 2 yrs _____ 1 yr _____ 6 mo _____ 3 mo _____ 1 mo _____
16. Did your parents help you plan your high school educational program? Yes _____ No _____
17. Are your parents in favor of your attending college? Yes _____ No _____
18. Is your father a college graduate? Yes _____ No _____

19. Is your mother a college graduate? Yes ___ No ___
20. Did you have a regular study program last year?
Yes ___ No ___
21. Did you make use of the college counseling service last year?
Yes ___ No ___
22. If so, for what purpose?
23. How much time did you spend studying during the daytime last year?
None ___ 1 hr ___ 2 hrs ___ 3 hrs ___ 4 hrs ___ 5 or more hrs ___
24. How much time did you spend per week studying in the college library last year?
None ___ 1 hr ___ 2 hrs ___ 3 hrs ___ 4-5 hrs ___ 6-7 hrs ___ 8+ hrs ___
25. Was there any class or course which you let slide because of lack of interest
(a) in the subject? Yes ___ No ___
(b) in the instructor? Yes ___ No ___
or (c) because of poor instruction? Yes ___ No ___
26. Were your absences from college classes excessive ___ moderate ___ or infrequent? ___
27. How frequently did you spend the week-end at home?
Every week ___ Every 2 wks ___ Every 3 wks ___ Every 4 wks ___
28. Did the subjects taken in your Freshman year at college contribute to the attainment of your plans?
Yes ___ No ___
29. In what particular areas, if any, could your campus life have been improved
(a) by yourself?
(b) by the college?
(c) by the high school?
30. Do you think this improvement would have raised your scholarship average? Yes ___ No ___
31. What more could you have done during the year to further your own academic achievement?
32. Did you seek help from your instructors regarding your work in college last year?
Frequently ___ Infrequently ___ Never ___
33. When sought, did you get the necessary amount of time from your instructors to discuss your personal classroom difficulties?
Yes ___ No ___
34. Were the demands of the college instructors greater than you had anticipated?
Yes ___ No ___

35. Were you satisfied with the quality of the college instruction in general? Yes No
36. If not, what was wrong?
37. What things, if any, handicapped you in your college work? (poor health, dating, finances, family troubles, outside employment, wrong associates, lack of goals, etc)
38. What influences, if any, inspired you to do better work than you would otherwise have done? (scholarship award, family, friends, instructors, roommate, counselors, eligibility, etc)
39. How many hours per week during the year did you spend in gainful employment? hours
40. Where did you live while a Freshman at M S C ?
Dorm At home Co-op Frat Rooming Else
41. Was your place of residence last year a handicap to you as far as your achievement in college was concerned?
Yes No
42. If so, in what way?
43. Did you over-participate in extraclass activities to the detriment of your studies? Yes No
44. If so, in what areas and how many hours per week?
Activity Hours per week
45. What were the main reasons that you did not earn the 1.6 average last year?

... ..
... ..
... ..
... ..

... ..
... ..

... ..
... ..

... ..
... ..

... ..

... ..
... ..

... ..
... ..

... ..
... ..

APPENDIX M

210 Perry Hall Street
Evanston, Ill. Chicago
March 1, 1941

Dear fellow student:

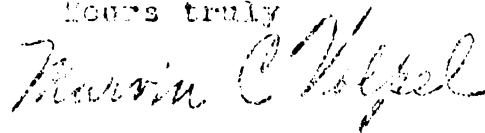
During the academic year 1940-1941 you were a student at Michigan State College studying under a full-time scholarship. Nearly 40 per cent of those admitted on entrance scholarships did not maintain an academic record high enough to have the scholarship renewed.

I am interested in the causes for these scholarship cancellations to the extent that I would like to make this study the dissertation for a doctor's degree. You can help me and at the same time render a service to the college and to future scholarship students if you will kindly answer and return the enclosed questionnaire promptly.

I would appreciate your fullest cooperation.

Thanking you in advance, I remain

Yours truly



Marvin C. Volpel
Department of Mathematics
Michigan State College

1. Is the total program of your high school sufficient to prepare one for college? Yes ___ No ___
2. Do you feel that you, personally, were prepared to meet the academic demands made on college freshmen? Yes ___ No ___
3. Do you think that you, personally, were prepared to cope with the problems of adjustment and responsibility demanded of college freshmen? Yes ___ No ___
4. Was the size of your school a handicap to your academic achievement as a college student? Yes ___ No ___
If so, was the school too large or too small? _____
5. Did you receive adequate educational guidance in high school? Yes ___ No ___
6. In what areas do you consider your high school program strong?
7. In what areas do you consider your high school program weak?
8. Can you give any advice to this year's scholarship Freshmen which might enable them to earn a renewal of the scholarship award?
9. Did the college take adequate steps to properly orient you to college life? Yes ___ No ___
10. Were you properly enrolled with respect to the variety of courses, adequate schedule of classes, satisfactory numbers of hours of work, etc? Yes ___ No ___
11. If not, what was wrong?
12. Was class size in college a handicap to you? Yes ___ No ___
If so, what size of class? _____
13. Were you satisfied with the regulation regarding the comprehensive examination and the subsequent marks in the basics? Yes ___ No ___
14. If not, what was unsatisfactory?
15. For how long a time previous to your entrance had you been planning to attend college?
6 yrs ___ 4 yrs ___ 2 yrs ___ 1 yr ___ 6 mo ___ 3 mo ___ 1 mo ___
16. Did your parents help you plan your high school educational program? Yes ___ No ___
17. Are your parents in favor of your attending college? Yes ___ No ___
18. Is your father a college graduate? Yes ___ No ___
19. Is your mother a college graduate? Yes ___ No ___

20. Did you have a summer study program last year? Yes ___ No ___
21. Did you make use of the college counseling service last year? Yes ___ No ___
22. If so, for what purpose?
23. How much time did you spend studying during the daytime last year?
None ___ 1 hr ___ 2 hrs ___ 3 hrs ___ 4 hrs ___ 5 or more hrs ___
24. How much time did you spend per week studying in the college library last year?
None ___ 1 hr ___ 2 hrs ___ 3 hrs ___ 4-5 hrs ___ 6-7 hrs ___ 8 hrs ___
25. Was there any class or course which you let slide because of lack of interest
(a) in the subject? Yes ___ No ___
(b) in the instructor? Yes ___ No ___
or (c) because of poor instruction? Yes ___ No ___
26. Were your absences from college classes excessive ___ moderate ___ or infrequent? ___
27. How many times per term did you spend the week-end away from your regular place of residence? ___
28. Did the subjects taken in your Freshman year at college contribute to the attainment of your plans? Yes ___ No ___
29. In what particular areas, if any, could your campus life have been improved
(a) by yourself?
(b) by the college?
(c) by the high school?
30. Do you think this improvement would have raised your scholarship average? Yes ___ No ___
31. What more could you have done during the year to further your own academic achievement?
32. Did you seek help from your instructors regarding your work in college last year?
Frequently ___ Infrequently ___ Never ___
33. When sought, did you get the necessary amount of time from your instructors to discuss your personal classroom difficulties? Yes ___ No ___
34. Were the demands of the college instructors greater than you had anticipated? Yes ___ No ___

35. Were you satisfied with the quality of the college instruction in general? Yes No
36. If not, what was wrong?
37. What things, if any, handicapped you in your college work? (poor health, dating, finances, family troubles, outside employment, wrong associates, lack of goals, etc)
38. What influences, if any, inspired you to do better work than you would otherwise have done? (scholarship award, family, friends, instructors, roommate, counselors, eligibility, etc)
39. How many hours per week during the year did you spend in gainful employment? hours
40. Where did you live while a Freshman at M S C ?
Born Co-op At home Rooming house With relatives
41. Was your place of residence last year a handicap to you as far as your achievement in college was concerned? Yes No
42. If so, in what way?
43. Did you over-participate in extracurricular activities to the detriment of your studies? Yes No
44. If so, in what areas and how many hours per week?
Activity Hours per week
45. What were the main reasons that you did not earn the 1.6 average last year?

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the transparency and accountability of the organization. This section also outlines the specific procedures for recording and verifying financial data.

2. The second part of the document addresses the role of the audit committee in overseeing the financial reporting process. It details the committee's responsibilities, including reviewing the financial statements, assessing the effectiveness of internal controls, and ensuring compliance with applicable laws and regulations. The committee is also responsible for reporting its findings to the board of directors.

3. The third part of the document focuses on the internal control system. It describes the various controls in place to prevent and detect errors or fraud, such as segregation of duties, authorization requirements, and regular reconciliations. The document also discusses the process for identifying and addressing control deficiencies.

4. The fourth part of the document discusses the importance of communication and collaboration between different departments. It emphasizes that effective communication is key to ensuring that all parties are aware of their responsibilities and are working together to achieve the organization's goals. This section also outlines the specific communication channels and protocols to be followed.

5. The fifth part of the document discusses the importance of ongoing monitoring and evaluation. It emphasizes that the internal control system is not a static entity and must be regularly reviewed and updated to reflect changes in the organization's operations and the external environment. This section also outlines the process for conducting regular assessments and implementing improvements.

APPENDIX O

Postal Card Message

March 15 1951

I would appreciate it very much if you would fill out and return the questionnaire I sent you two weeks ago. I need it to complete my study.

M C Volpel

During the academic year 1949-1950 you were a freshman at Michigan State College studying under a tuition-free scholarship. You are to be congratulated for having earned a renewal of the award. However, almost 40 per cent of those admitted did not make an academic record high enough to earn the renewal.

As the basis for my doctor's dissertation I am studying the causes of the scholarship cancellations. In order to draw conclusions about this group I need some information from the successful group. You can help me and at the same time render a service to the college and to future scholarship students if you will kindly answer and return this questionnaire promptly. I promise you that all information will be held strictly confidential.

Thanking you in advance, I remain

Yours truly

Marvin C. Volpel

Marvin C Volpel, Dept of Math

1. Was the total program of your high school sufficient to prepare one for college? Yes ___ No ___
2. Do you feel that you were prepared to meet the academic demands made on college freshmen? Yes ___ No ___
3. Do you think that you were prepared to cope with the problems of adjustment demanded of college students? Yes ___ No ___
4. Was the size of your high school any handicap to your academic success as a college freshman? Yes ___ No ___
If so, was the school too large or too small? _____
5. Did you receive adequate educ guidance in high school? Yes ___ No ___
6. In what areas do you consider your high school program strong?
7. In what areas do you consider your high school program weak?
8. What advice can you give to this year's scholarship group which might enable them to earn a renewal of the scholarship award?
9. Did the college take adequate steps to properly orient you to college life? Yes ___ No ___
10. Were you properly enrolled with respect to variety of courses, schedule of classes, etc? Yes ___ No ___
11. If not, what was wrong?
12. Was class size in college any handicap to you? Yes ___ No ___
If so, what size of class? _____
13. Were you satisfied with the regulation regarding the comprehensive examination and subsequent marks in the basics? Yes ___ No ___
14. If not, what was unsatisfactory?
15. For how long a time had you been planning to attend college?
0 yrs ___ 4 yrs ___ 2 yrs ___ 1 yr ___ 6 mo ___ 3 mo ___ 1 mo ___
16. How would you rate your high school educational program?

17. Are your parents in favor of your attending college? Yes___ No___
18. Is your father a college graduate? Yes___ No___
19. Is your mother a college graduate? Yes___ No___
20. Did you have a regular study program last year? Yes___ No___
21. Did you make use of the counseling service last year? Yes___ No___
22. If so, for what purpose?
23. How much time did you spend studying during the day time last year?
None___ 1 hour___ 2 hrs___ 3 hrs___ 4hrs___ 5 or more hrs___
24. How much time did you spend per week studying in the college library last year?
None___ 1 hr___ 2hrs___ 3 hrs___ 4-5 hrs___ 6-7 hrs___ 8 or more___
25. Was there any class or course which you let slide because of lack of interest (a) in the subject? Yes___ No___
(b) in the instructor? Yes___ No___
or because of (c) poor instruction? Yes___ No___
26. Were your absences from college classes excessive?___ moderate?___ or infrequent?___
27. How many times per term did you spend the week-end away from your regular place of residence?___
28. In what particular areas, if any, could your campus life have been improved
(a) by yourself?
(b) by the college?
(c) by the high school?
29. Do you think that this improvement would have raised your scholarship average? Yes___ No___
30. Did you seek help from your instructors regarding your work in college last year? Yes___ No___
31. Were the demands of the college instructors greater than you had anticipated? Yes___ No___
32. Were you satisfied with the quality of instruction in general?___
33. If not, what was wrong?
34. What influences, if any, inspired you to do better work than you might have done? (scholarship award, family, friends, instructors)
35. How many hours per week during the school year did you spend in gainful employment?___ hours
36. Where did you live while a Freshman at M S C ?___
37. Was your place of residence a handicap to you as far as your achievement in college was concerned? Yes___ No___
38. What factors contributed most to your academic success?___

APPENDIX Q

April 23 1951

Dear fellow-student:

Your name has been selected at random for a member of a "Sampling Group". I would appreciate it very much if you would kindly fill out this questionnaire and return to me by campus mail at your earliest convenience.

In September of 1949, Michigan State College awarded 400 tuition-free scholarships to incoming Freshmen. At the end of the first year 40% of these Freshmen failed to earn a renewal of the award because they did not make the 1.6 average. I am trying to find out why and would like to make this study the dissertation for my doctor's degree. In order to make comparisons and draw conclusions I must know something about the regular college group. That is why I am asking your co-operation in this project.

Thanking you in advance, I remain

Yours truly

Marvin C Volpel
Dept of Mathematics

1. Was the total program of your high school sufficient to prepare one for college? Yes___ No___
2. Do you feel that you, personally, were prepared to cope with the demands made on college freshmen? Yes___ No___
3. Do you think that you were prepared to meet the academic demands made on college freshmen? Yes___ No___
4. Was the size of your school a handicap to your academic achievement as a college student? Yes___ No___
Was your school too large or too small?_____
5. Did you receive adequate educ. guidance in high school? Yes___ No___
6. In what areas do you consider your high school program strong?
7. In what areas do you consider your high school program weak?
8. Did the college take adequate steps to properly orient you to college life? Yes___ No___

9. Were you properly enrolled with respect to the variety of courses, adequate schedule of classes, satisfactory number of hours of work, etc.? Yes___ No___
10. If not, what was wrong?
11. Was class size in college a handicap to you? Yes___ No___
12. Were you satisfied with the regulation regarding the comprehensive examinations and the subsequent marks in the basics? _____
13. If not, what was unsatisfactory?
14. For how long a time had you been planning to attend college? 6 yrs___ 4 yrs___ 2 yrs___ 1 yr___ 6 mo___ 3 mo___ 1 mo___
15. Did your parents help you plan your high school educational program? Yes___ No___
16. Are your parents in favor of your attending college? _____
17. Is your father a college graduate? Yes___ No___
18. Is your mother a college graduate? Yes___ No___
19. Did you have a regular study program last year? Yes___ No___
20. Did you make use of the college counseling service last year? _____
21. If so, for what purpose?
22. How much time did you spend studying during the day-time last year? None___ 1 hr___ 2 hrs___ 3 hrs___ 4 hrs___ 5 or more___
23. How much time did you spend per week studying in the college library last year? None, 1, 2, 3, 4, 6, 8, hours.
24. Was there any class or course which you let slide because of lack of interest
 (a) in the subject? Yes___ No___
 (b) in the instructor? or Yes___ No___
 (c) because of poor instruction? Yes___ No___

25. Were your absences from college classes excessive____
moderate_____ or infrequent?_____
26. How many times per term did you spend the weekend away
from your regular place of residence?_____
27. Did the subjects taken in your freshman year contri-
bute to the attainment of your plans? Yes____ No____
28. In what particular areas could your campus life have
been improved (a) by yourself?
(b) by the college? (c) by the high school?
29. Do you think this improvement would have raised your
marks?_____
30. What more could you have done during the year to im-
prove your own academic achievement?
31. Did you seek help from your instructors regarding
your work last year? Frequently_____ Infrequently____
Never_____
32. When sought, did you get the necessary amount of time
from your instructors to discuss your problems?
Yes____ No____
33. Were the demands of the college instructors greater
than you had anticipated? Yes____ No____
34. Were you satisfied with the quality of the college
instruction in general? Yes____ No____
35. What things, if any, handicapped you in your college
work? (poor health, dating, finances, etc.)
36. What influences, if any, inspired you to do better
work? (family, friends, eligibility, etc.)
37. How many hours per week during the year did you spend
in gainful employment? _____ hours
38. Where did you live while a Freshman at M S C?
Dorm____ Co-op____ At home____ Rooming house____
Other_____
39. Was your place of residence a handicap to you as far
as your achievement in college was concerned?
Yes____ No____

40. If so, in what way? _____
41. Did you over-participate in extra-class activities last year? _____
42. If so, in what areas and how many hours per week? _____
43. Have you any advice to give to an incoming freshman?

~~REDACTED~~
Ja 29 '54

22 Jul 51

5 Aug 51

~~JUN 14 1960~~

~~FEB 9 1961~~

~~NOV 23 1963~~