

LIBRARY
Michigan State
University

This is to certify that the

dissertation entitled

A STUDY COMPARING ACADEMIC PERFORMANCE AND GRADUATION RATE
OF TRANSFER STUDENTS WITH NATIVE STUDENTS IN THE
BACCALAUREATE MARKETING CURRICULA IN
THE SCHOOL OF BUSINESS AT
FERRIS STATE COLLEGE
presented by

ROLAND RAPHAEL REAM

has been accepted towards fulfillment
of the requirements for

DOCTOR OF PHILOSOPHY degree in TEACHER EDUCATION

Robert Poland

Major professor

Date November 3, 1987



RETURNING MATERIALS:

Place in book drop to
remove this checkout from
your record. FINES will
be charged if book is
returned after the date
stamped below.

MAY 11 1991
400 ACB

MAY 12 1991

**A STUDY COMPARING ACADEMIC PERFORMANCE AND GRADUATION RATE
OF TRANSFER STUDENTS WITH NATIVE STUDENTS IN THE
BACCALAUREATE MARKETING CURRICULA IN
THE SCHOOL OF BUSINESS AT
FERRIS STATE COLLEGE**

By

Roland Raphael Ream

A DISSERTATION

**Submitted To
Michigan State University
in partial fulfillment of the requirements
for the degree of**

DOCTOR OF PHILOSOPHY

**College of Education
Department of Teacher Education**

1987

Copyright by
ROLAND RAPHAEL REAM
1987

ABSTRACT

A STUDY COMPARING ACADEMIC PERFORMANCE AND GRADUATION RATE OF TRANSFER STUDENTS WITH NATIVE STUDENTS IN THE BACCALAUREATE MARKETING CURRICULA IN THE SCHOOL OF BUSINESS AT FERRIS STATE COLLEGE

By

Roland Raphael Ream

The problem of this study was to investigate the success of transfer students compared with native students to determine the effectiveness of two-plus-two marketing programs at Ferris State College (FSC).

The population was two junior groups: (1) transfer students who entered a two-year program as freshmen, completed an associate degree, and transferred to a marketing curriculum at FSC, and (2) native marketing students who entered FSC as freshmen.

Eleven hypotheses were tested using the following variables: cumulative freshman-sophomore grade point averages (GPA); GPA in lower-level marketing courses; cumulative junior-senior GPA; cumulative freshman-sophomore GPA compared with GPA of first quarter of junior year; GPA in upper-level marketing courses; GPA in upper-level marketing courses of students who took lower-level marketing courses at other colleges compared with that of students who took lower-level marketing courses at FSC; reasons for attrition; percentages of attrition, course withdrawals, probation, and graduation. Variables were also studied by gender. Data

were analyzed using analysis of variance and Chi Square tests with a .05 significance level.

Transfer students' GPA for the first quarter of the junior year decreased significantly more from their cumulative freshman-sophomore GPA than did that of native students.

Significant differences, by gender, found female native students earned higher cumulative freshman-sophomore GPA's, as well as junior-senior GPA's, than did female transfers; male transfer students earned higher cumulative freshman-sophomore GPA's, as well as junior-senior GPA's, than did male natives; and female transfer students had higher attrition percentages than did female natives.

Conclusions are (1) transfer and native students have similar ability, motivation, satisfaction, preparation, perseverance, interests, personal accomplishments, and problems; (2) two-year college and FSC course requirements and grading standards are similar; (3) two-year college and FSC faculty, as well as students, are similar in preparation and quality; (4) transfer students choose appropriate curricula; (5) transfer students have difficulty adjusting to FSC requirements, grading, and class sizes but eventually adjust adequately; (6) two-year colleges fulfill course prerequisites, or prerequisites are unimportant; (7) two-year colleges and FSC provide similar backgrounds in general education and in marketing, and (8) transfer and native students apply principles to upper-level courses similarly.

DEDICATION

Special thanks is given to my wife, Shirley, whose understanding, patience, cooperation, and encouragement have been unceasing throughout this project. Her assistance in word processing and proofreading, and her complete support have been major factors in bringing this study to a conclusion. It is to her that I dedicate this dissertation.

ACKNOWLEDGMENTS

Many people have aided in the initiation, development, and completion of this research project. The writer acknowledges with appreciation those who encouraged, counseled, and advised through the various stages of this study.

I am thankful to the members of my supervisory committee: Dr. Robert Poland, chairman, Dr. Paul Slocum, Dr. Ben Bohnhorst, and Dr. Eldon Nonnamaker, for their wisdom, advice, and patience extended to me in the classroom and through the completion of this project.

The writer is indebted to colleagues at Ferris State College for both their moral support as well as their specific assistance. Dr. Keith E. Lucas, faculty member, provided strong motivation to complete a doctoral program as well as helpful encouragement and counsel in reaching this goal.

Otis Dickens, Assistant Dean in the School of Business, made available needed student enrollment data. I am also grateful for his expertise, knowledge, and helpful suggestions offered to me at various steps in the development of this study.

I appreciate the wise advice given me by the Coordinator of Testing, Dr. Fred Swartz, in solving many special problems associated with this research.

The library staff was very efficient in helping secure related literature for use in Chapter Two. Librarian Sara E. Krumins aided in the initial procedures for gathering this information. Librarian Keitha Breault capably conducted the ERIC search for related literature. Librarian Richard E. Perrin and assistants, Kathy Peacock and Linda Podehl, were effective in securing information through inter-library loans.

I am deeply grateful to Paul G. Schnepf, Registrar, and his staff for their cooperation and patience in making student records available as well as providing physical working space during the data gathering phase. Mr. Schnepf's knowledge of student records was especially helpful in securing crucial information needed for analysis.

Statistical assistance was capably given by faculty members Dr. James Maas and Michael Cooper. I am thankful to Dr. Maas for his recommendations for the overall statistical design. I am deeply indebted to Mr. Cooper, who so thoroughly, efficiently, and patiently structured the statistical procedures. With great respect I thank Mr. Cooper for his kindness as he gave of himself so unselfishly in processing the data through the use of the SAS computer software package.

Linda Travis, Director of the School of Business Computer Laboratory, and Clyde Hardman, faculty member, provided instructional help in word processing. I appreciate the high degree of interest, care, and patience provided by Mrs. Travis throughout the processing of this document on data processing equipment. Student laboratory assistants Alan Bott and Mark Redder provided unusual skill in solving problems involving the word processing of this project.

Bonita K. Golder, faculty member, was especially helpful in providing editorial review. Mary Jane Cook, faculty member, ably aided in effective word usage.

I am grateful to my parents, brother, and sister-in-law. I owe a special degree of gratitude to my parents for their support and guidance throughout my educational career. It has been their concern, their lives, their wisdom, and their spiritual leadership that have guided me from my first day of kindergarten to the achievement of this goal. I am deeply grateful to my brother and his wife for their continued interest, concern, and encouragement to me for the successful completion of this study.

TABLE OF CONTENTS

	Page
LIST OF TABLES.....	xii
 Chapter	
I. THE PROBLEM.....	1
Introduction.....	1
Statement of the Problem.....	3
Need for the Study.....	4
Purpose of the Study.....	6
Assumptions.....	9
Delimitations.....	10
Limitations.....	10
Definition of Terms.....	12
Research Questions.....	15
Hypotheses.....	17
Summary.....	19
Chapter Notes.....	20
 II. REVIEW OF RELATED LITERATURE.....	21
Introduction.....	21
History of Ferris State College.....	22
Related Studies.....	30
Growth of Two-Year Institutions.....	30
Articulation Concerns.....	33
Classification of Transfer Students....	41
Characteristics of Transfer Students...	42
Transfer Student Satisfaction with Two-Year College Experience.....	43
Aspirations of Transfer Students.....	44
Academic Performance of Transfer Students.....	45
Academic Performance of Students Transferring to Four-Year Schools of Business.....	59
Transfer Policies and Standards.....	64
Summary.....	85
Chapter Notes.....	87

TABLE OF CONTENTS (Continued)

	Page
III. METHODS AND PROCEDURES.....	93
Introduction.....	93
Design.....	93
Population.....	94
Collection of Data.....	95
Procedures.....	97
Research Questions.....	101
Hypotheses.....	103
Analysis of Data.....	105
Descriptive Procedures.....	107
Inferential Techniques.....	111
Chapter Notes.....	114
IV. ANALYSIS OF RESULTS.....	115
Introduction.....	115
Tests of Hypotheses and Answers to Research Questions.....	115
Null Hypothesis One.....	115
Research Question One.....	117
Null Hypothesis Two.....	118
Research Question Two.....	120
Null Hypothesis Three.....	121
Research Question Three.....	123
Null Hypothesis Four.....	123
Research Question Four.....	126
Null Hypothesis Five.....	126
Research Question Five.....	128
Null Hypothesis Six.....	129
Research Question Six.....	132
Null Hypothesis Seven.....	133
Research Question Seven.....	134
Null Hypothesis Eight.....	135
Research Question Eight.....	136
Null Hypothesis Nine.....	137
Research Question Nine.....	139
Null Hypothesis Ten.....	140
Research Question Ten.....	141
Null Hypothesis Eleven.....	142
Research Question Eleven.....	143
Null Hypothesis Twelve and Research Question Twelve.....	144

TABLE OF CONTENTS (Continued)

	Page
V. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS.....	170
Findings.....	170
Research Question One.....	170
Research Question Two.....	171
Research Question Three.....	171
Research Question Four.....	172
Research Question Five.....	172
Research Question Six.....	173
Research Question Seven.....	174
Research Question Eight.....	174
Research Question Nine.....	175
Research Question Ten.....	176
Research Question Eleven.....	176
Research Question Twelve.....	177
Summary of Findings.....	181
Conclusions.....	189
Recommendations.....	192
Suggestions for Additional Research.....	194
Reflections.....	195
APPENDICES.....	196
Appendix A. Ferris State College.....	196
Appendix B. Transfer Curricula.....	207
Appendix C. The Family Educational Rights and Privacy Act of 1974 as Amended.....	224
Appendix D. Ferris State College Approval.....	227
Appendix E. Michigan State University Approval.....	228
Appendix F. Risk Benefit Ratio Analysis.....	229
Appendix G. School of Business Student Withdrawal Interview.....	233
Appendix H. Withdrawal Clearance Form....	234
Appendix I. Statistical Data.....	235
BIBLIOGRAPHY.....	254

LIST OF TABLES

Table	Page
1. Ferris State College Enrollment Fall 1985, and Degrees Granted in 1984-85.....	23
2. Educational Programs Offered at Ferris State College, 1985-86.....	25
3. Characteristics of Michigan Two-Year Colleges from Which Students Transfer to Ferris State College...	27
4. Growth of Two-Year Institutions in the United States, 1963-1983.....	32
5. Grade Point Averages of Students Two Years After Transfer from Various Types of Institutions.....	58
6. Percentages of Colleges Who Evaluated Business Core and Accounting Courses as Being Transferable, Nontransferable, or Transferable by Examination...	75
7. Research Population of Students Enrolled in a Baccalaureate Marketing Curriculum at Ferris State College.....	95
8. Academic Probation Policy at Ferris State College Based on Quarter Hours Earned and Grade Point Average Range for Placement on Probation.....	100
9. Alphabetical Grade and Honor Points Allowed Per Credit Hour at Ferris State College.....	108
10. Cumulative Freshman and Sophomore Grade Point Statistics.....	116
11. Analysis of Variance Test of Cumulative Freshman and Sophomore Grade Point Averages.....	117
12. Grade Point Statistics for Four Selected Lower-Level Marketing Courses.....	119
13. Analysis of Variance Test of Grade Point Averages for Four Selected Lower-Level Marketing Courses...	119
14. Cumulative Junior and Senior Grade Point Statistics.....	121

LIST OF TABLES (Continued)

Table	Page
15. Analysis of Variance Test of Cumulative Junior and Senior Grade Point Averages.....	122
16. Differences in Cumulative Freshman and Sophomore Grade Point Statistics and Grade Point Statistics for First Quarter of Junior Year.....	124
17. Analysis of Variance Test of Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages for First Quarter of Junior Year.....	125
18. Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses.....	127
19. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses.....	127
20. Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College.....	130
21. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College..	131
22. Course Withdrawals of Juniors and Seniors.....	133
23. Chi Square Test of Course Withdrawals of Juniors and Seniors.....	134
24. Attrition of Juniors and Seniors.....	135
25. Chi Square Test of Attrition of Juniors and Seniors.....	136
26. Reasons for Attrition of Juniors and Seniors.....	138

LIST OF TABLES (Continued)

Table	Page
27. Chi Square Test of Reasons for Attrition by Grades Compared to Other Reasons for Attrition of Juniors and Seniors.....	139
28. Juniors and Seniors on Academic Probation for Any One Quarter.....	140
29. Chi Square Test of Juniors and Seniors on Academic Probation for Any One Quarter.....	141
30. Seniors Who Graduated by Spring 1986.....	142
31. Chi Square Test of Seniors Who Graduated by Spring 1986.....	143
32. Cumulative Freshman and Sophomore Grade Point Statistics by Gender.....	145
33. Analysis of Variance Test of Cumulative Freshman and Sophomore Grade Point Averages by Gender.....	146
34. Grade Point Statistics by Gender for Four Selected Lower-Level Marketing Courses.....	147
35. Analysis of Variance Test of Grade Point Averages by Gender for Four Selected Lower-Level Marketing Courses.....	148
36. Cumulative Junior and Senior Grade Point Statistics by Gender.....	149
37. Analysis of Variance Test of Cumulative Junior and Senior Grade Point Averages by Gender.....	150
38. Differences in Cumulative Freshman and Sophomore Grade Point Statistics and Grade Point Statistics for First Quarter of Junior Year by Gender.....	151
39. Analysis of Variance Test of Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages for First Quarter of Junior Year by Gender.....	152
40. Grade Point Statistics of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses.....	153
41. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses.....	154

LIST OF TABLES (Continued)

Table	Page
42. Grade Point Statistics of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College..	156
43. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College.....	157
44. Course Withdrawals of Juniors and Seniors by Gender.....	159
45. Chi Square Test of Course Withdrawals of Juniors and Seniors by Gender.....	160
46. Attrition of Juniors and Seniors by Gender.....	161
47. Chi Square Test of Attrition of Juniors and Seniors by Gender.....	162
48. Reasons for Attrition of Juniors and Seniors by Gender.....	164
49. Juniors and Seniors by Gender on Academic Probation for Any One Quarter.....	165
50. Chi Square Test of Male Juniors and Seniors on Academic Probation for Any One Quarter.....	166
51. Seniors by Gender Who Graduated by Spring 1986...	168
52. Chi Square Test of Seniors by Gender Who Graduated by Spring 1986.....	168
53. Summary of Cumulative Freshman and Sophomore Grade Point Statistics.....	235
54. Summary of Analysis of Variance Test of Cumulative Freshman and Sophomore Grade Point Averages.....	236

LIST OF TABLES (Continued)

Table	Page
55. Summary of Grade Point Statistics for Four Selected Lower-Level Marketing Courses.....	237
56. Summary of Analysis of Variance Test of Grade Point Averages for Four Selected Lower-Level Marketing Courses.....	238
57. Summary of Cumulative Junior and Senior Grade Point Statistics.....	239
58. Summary of Analysis of Variance Test of Cumulative Junior and Senior Grade Point Averages....	240
59. Summary of Differences in Cumulative Freshman and Sophomore Grade Point Statistics and Grade Point Statistics for First Quarter of Junior Year.....	241
60. Summary of Analysis of Variance Test of Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages for First Quarter of Junior Year.....	242
61. Summary of Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses.....	243
62. Summary of Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses.....	244
63. Summary of Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College..	245
64. Summary of Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College.....	246
65. Summary of Course Withdrawals of Juniors and Seniors.....	247

LIST OF TABLES (Continued)

Table	Page
66. Summary of Chi Square Test of Course Withdrawals of Juniors and Seniors.....	248
67. Summary of Attrition of Juniors and Seniors.....	249
68. Summary of Chi Square Test of Attrition of Juniors and Seniors.....	249
69. Summary of Reasons for Attrition of Juniors and Seniors.....	250
70. Summary of Chi Square Test of Reasons for Attrition by Grades Compared to Other Reasons for Attrition of Juniors and Seniors.....	251
71. Summary of Juniors and Seniors on Academic Probation for Any One Quarter.....	251
72. Summary of Chi Square Test of Juniors and Seniors on Academic Probation for Any One Quarter.....	252
73. Summary of Seniors Who Graduated by Spring 1986...	252
74. Summary of Chi Square Test of Seniors Who Graduated by Spring 1986.....	253

f.

Ca

Ca

ee

we

pa

ar

cu

cu

cu

7ea

co

leg

edu

only

as w

stan

CHAPTER I

THE PROBLEM

Introduction

College students, colleges, and curricula have furnished unique circumstances for higher business education in the United States. Students in the college age category and educational level have been the most mobile segment of our population. The economic and demographic as well as social implications of student mobility have been of particular importance to college and university planning and administration.

Colleges have been unique by including a variety of curricula which have given students many educational choices. Students could prepare for business careers not only through structured business curricula in two- and four-year undergraduate schools, but also through many other college and university majors as well as in graduate school.

The establishment of various types of two-year colleges, in particular, broadened opportunities for higher education. These opportunities have been provided, not only for recent high school graduates but for older adults as well, through general courses and community service programs. In a time period when many public colleges and

universities were raising their admission standards, Knoell and Medsker¹ found students with lesser academic ability enrolling in various types of two-year colleges. To many students, two-year institutions were thought of as being economical, having an open door admission policy, and being ideally suited for commuters.

The diversity of institution types presented a wide range of quality and standards. Problems thus existed in program philosophy, curriculum, and transferability between institutions.

In 1972 Ferris State College was an original participant in the Michigan Association of Collegiate Registrars and Admissions Officers agreement. This action provided for uniform requirements in the State of Michigan regarding general education courses. The acceptance of transfer credit from other institutions was among the early philosophies of Ferris State College.

The School of Business at Ferris was, and continues to be, a leader in developing unique curricula for the expressed purpose of assisting transfer students. These programs were called "two-plus-two" curricula since they were intended to enable students to complete the first two years of college in a two-year program, transfer to a baccalaureate program at Ferris State College with full acceptance of their prior work, and complete a baccalaureate degree in an additional two years. The Marketing Department

in

to

Sci

pa

tre

the

inv

Mar

men

ove

at F

spec

refe

to

auto

State

laure

acade

enrol

probi

in the School of Business developed two-plus-two curricula for several specialty areas.

While Ferris State College in general, and the School of Business and its Marketing Department in particular, have been actively involved in the acceptance of transfer credit, there has been a lack of research studying the success of transfer students.

This study addresses the neglected area of research involving the academic success of transfer students in the marketing department by comparing the academic accomplishments of transfer students with those of native students over a selected period of time.

Statement of the Problem

The Marketing Department in the School of Business at Ferris State College includes, among its many curricula, special programs designed for transfer students. They are referred to as "two-plus-two programs" and allow students to take two years of study in a two-year program and then automatically transfer to a baccalaureate program at Ferris State College for an additional two years to earn a baccalaureate degree in business-marketing.

Very little research has been done to determine the academic performance and graduation percentage of students enrolled in the two-plus-two programs in marketing. The problem of this study was to investigate the success of

transfer marketing students in comparison with native (For definition of "native" see page 14) marketing students to determine the effectiveness of the two-plus-two programs.

Need for the Study

While on the surface it appeared that articulation between two-year programs and baccalaureate programs presented no problem at Ferris State College, Dickens² stated that Ferris has experienced a greater percentage of attrition among transfer students than among native students. This occurrence may have been indicative of several of the seventeen problems (in addition to possibly others not accounted for) associated with transferring discussed in Chapter II of this study. While each of these problems was not apparent at Ferris, eight may have been related to the high attrition rate of transfer students at Ferris State College. These eight problems included the following: (1) academic advising; (2) new student programs; (3) recognition and awards; (4) research; (5) student activities, studied by Sandeen and Goodale;³ (6) communication, analyzed by Slark and Bateman;⁴ (7) predictors of success, researched by Knoell and Medsker;⁵ and (8) time requirements, reported by Downey.⁶ The possible application of these studies to the attrition concerns at Ferris is summarized as follows:

1. Academic Advising

There may be a need to provide for transfer students academic advisors who have a strong interest in guiding

these students in their degree requirements and in selecting elective courses.

2. New Student Programs

There may be a need to provide special orientation programs for transfer students.

3. Recognition and Awards

There may be a need to revise the policy of rewarding outstanding transfer students' achievements by recognizing student accomplishments at previous institutions.

4. Research

There may be a need for the School of Business at Ferris State College continually to study students transferring into the baccalaureate marketing programs. This would include researching their prior academic accomplishments and work at Ferris State College as well as their career success.

5. Student Activities

There may be a need to study the involvement of transfer students in campus activities including social, political and recreational areas.

6. Communication

There may be a need to assist two-year colleges in their transfer function by providing greater information on prerequisites, transferability of credits, and course descriptions.

7. Predictors of Success

There may be a need to evaluate the measurements available to determine the most valid predictors of academic success for students transferring to the School of Business at Ferris State College.

8. Time Requirements

There may be a need to explore the length of time transfer students persist in their studies at Ferris State College.

It is obvious that for students to receive full benefit from the educational opportunities offered by the combined system of two- and four-year institutions, articulation problems must be minimized. The diminishing number of college-age students and increasing pressures on educational resources also emphasizes the importance of solving Problems relating to transfer students.

Since there is little evidence of research comparing Performance and graduation percentages of students enrolled in the two-plus-two marketing programs with those who were native marketing students, the need for this study was apparent. The results of this research may provide answers to the possible problems cited and to answer the twelve research questions listed later in this chapter.

Purpose of the Study

The purpose of this study was to compare transfer with native students in marketing curricula in the School of Business at Ferris State College. This comparison was done

to determine their similarity or dissimilarity of academic performance, graduation percentage, course withdrawal, academic probation percentage, and attrition percentage.

The results of this study and the correction of the problems cited should benefit Ferris State College, two-year colleges, and future transfer students. Ferris State College should receive the following benefits:

1. Be provided an increased pool of potential students via the transfer route from two-year colleges
2. Be the recipient of a strengthened emphasis for the curricula in two-year colleges designed especially for transfer students
3. Be provided more open communication with two-year colleges, aiding academic program construction as well as the mechanics of the transfer process
4. Be provided greater evidence showing the necessity to evaluate the transfer orientation program
5. Be provided greater evidence showing the necessity to evaluate the transcript evaluation conference
6. Be provided greater evidence showing the necessity to evaluate, on a continuous basis, the effectiveness of the special curricula for transfer students

The two-year college should receive the following benefits:

1. Be provided the possibility of attracting a greater number of freshman students who would ordinarily

have enrolled at Ferris State College or some other four-year institution

2. Be the recipient of greater recognition and status by its relationship with Ferris State College

3. Be provided greater motivation to evaluate academic course work to assure adequate student preparation for upper-level study

4. Be the recipient of greater program enrichment through faculty interaction of the two-year institution with Ferris State College by correspondence, visitations, and seminars

5. Be provided the possibility whereby curriculum requirements of the two types of institutions could serve as input influencing the program structures of both Ferris and the two-year colleges

The future transfer student should receive the following benefits:

1. Be provided greater motivation during the two-year program for more adequate preparation for upper-level course work

2. Be provided greater possibilities for transferability to a four-year college without loss of academic credit

3. Be provided greater possibilities for a smooth transfer to a four-year college with a minimum of obstacles and complexities

4. Be provided greater motivation during the two-year program for pursuing a baccalaureate degree for those who had little or no intention of continuing their education beyond an associate degree

5. Be provided greater possibilities for obtaining higher education more economically by enabling students to complete two years of college in their own community and then easily transfer to a four-year college

6. Be provided greater motivation for non-traditional students to transfer easily to a four-year college after completing an associate degree more conveniently and economically at a two-year institution

Assumptions

In this study the following five assumptions were made:

1. Researcher would have complete access to students' academic and exit records.

2. Grade point averages of lower-level courses were accurate predictors of academic success in the upper level.

3. Grade point averages, graduation percentages, course withdrawals, attrition percentages, and time spent on academic probation were indicators of academic success in junior and senior years of college.

4. Students had given truthful responses during exit interviews.

5. Academic and professional motivation, and the preparation and quality of faculty and students at two-year institutions were similar to that of Ferris State College in like course levels. These factors would be sufficiently equal to permit transfer acceptance of credits, degrees, and students without extensive analysis of each course contained in the curriculum of study.

Delimitations

The following boundaries were established for this study:

1. Native students in baccalaureate marketing curricula at Ferris State College
2. Transfer students with associate degrees from regionally accredited institutions
3. Basic time period of seven years from Fall 1979-Spring 1986
4. Consideration of demographic variables including age and gender

Limitations

The following restraints were encountered in this study:

1. No consideration given to change from baccalaureate marketing curricula to other majors because of limited numbers
2. Age groupings, as demographic variables, were deleted because of limited numbers

3. Statistical tests could not be performed for certain hypotheses because of limited numbers

4. Total population not included in calculating cumulative freshman and sophomore grade point statistics because of missing data

5. Total population not included in calculating grade point statistics for four selected lower-level marketing courses because of lack of comparative data

6. Total population not included in calculating cumulative junior and senior grade point statistics because of lack of comparative data

7. Total population not included in calculating differences in cumulative freshman and sophomore grade point statistics, and grade point statistics for first quarter of junior year, because of lack of comparative data

8. Total population not included in calculating grade point statistics for five selected upper-level marketing courses because of lack of comparative data

9. Total population not included in calculating grade point statistics for five selected upper-level marketing courses of transfer students who had taken four selected lower-level marketing courses at colleges other than Ferris State College, and of native students who had taken four selected lower-level marketing courses at Ferris State College, because of lack of comparative data

Definition of Terms

Academic Performance--The rate of a student's success in college as measured by grade point averages, course withdrawals, probation, attrition, and graduation.

Academic Probation--(A policy to ensure) an orderly procedure for giving careful consideration to the needs of each student enrolled in the upper division of a baccalaureate marketing curriculum at Ferris State College who was experiencing difficulty in academic work.

Articulation--(An effort to establish) cooperative working relationships, communication, and agreements between colleges so that students could make a satisfactory transfer from one institution to another.

Attrition--A condition that existed when a student attended at least one full quarter in the upper division of a baccalaureate marketing curriculum at Ferris State College and did not return for subsequent quarters.

Associate Degree--A degree granted by regionally accredited colleges upon the successful completion of a prescribed two-year curriculum.

Baccalaureate Marketing Curricula--Four-year programs in the School of Business at Ferris State College leading to a Bachelor of Science in Business degree with specialties in Advertising, General Marketing, Retailing, or Sales.

College Level Examination Program (CLEP)--Tests offered by the College Board which, upon their successful completion, colleges grant credit for advanced standing to students with college equivalent experiences.

Grade Point Average--The average grades earned while enrolled in another regionally accredited college and/or in a baccalaureate marketing curriculum at Ferris State College.

Graduation--The awarding of the Bachelor of Science degree in Business upon the completion of a baccalaureate marketing curriculum in the School of Business at Ferris State College.

Junior--A student with an associate degree from a regionally accredited college and enrolled in a baccalaureate marketing curriculum at Ferris State College in the Fall of 1981, 1982 or 1983, or a Ferris State College student enrolled in a baccalaureate marketing curriculum who acquired 90 quarter hours of credit by the beginning of Fall 1981, 1982 or 1983.

Lower - Level Marketing Courses--Introductory marketing courses consisting of Principles of Advertising, Principles of Marketing, Principles of Retailing, and Principles of Salesmanship taught at Ferris State College as well as at many two-year institutions.

Native Student--A student who enrolled at Ferris State College as a freshman in a baccalaureate marketing program.

Regionally Accredited Institution--A college accredited by the North Central Association of Colleges and Schools or by the Michigan Commission on College Accreditation.

Selected Reasons for Attrition--Those involving grades, financial problems, illness, live at home, curriculum change, and unknown.

Senior--A student who was a junior in the Fall of 1981, 1982 or 1983 in a baccalaureate marketing curriculum at Ferris State College and continued to the point of acquiring a total of 125 quarter hours of credit.

Status--A classification of students as being either transfer or native.

Transfer Shock--A condition which results in transfer students' grade point averages decreasing during their first quarter at a four-year college in comparison to their cumulative grade point average for their first two years in a two-year program.

Transfer Student--A student transferring into a baccalaureate marketing curriculum at Ferris State College who received an associate degree at a regionally accredited college.

Two-plus-Two Program--A program allowing students to take two years of study at a regionally accredited college and then automatically transfer to a four-year college for an additional two years to earn a baccalaureate degree.

Upper-Level Marketing Courses--Advanced marketing courses consisting of Analytical Marketing Techniques, Marketing Cases and Problems, Marketing Policy, Marketing Research, and Transportation and Physical Distribution taken by marketing students during their last two years at Ferris State College.

Research Questions

The primary question answered by this study was how do transfer marketing students compare academically with native marketing students at Ferris State College. Answers to the following secondary questions were considered in reaching conclusions to this primary concern:

1. Do grade point averages of college freshman and sophomore transfer marketing students differ from those of native marketing students?

2. Do grade point averages of transfer marketing students differ from those of native marketing students for selected lower-level marketing courses?

3. Do grade point averages of college junior and senior transfer marketing students differ from those of native marketing students?

4. Do students experience transfer shock after transferring to a baccalaureate marketing curriculum at Ferris State College?

5. Do grade point averages of transfer marketing students differ from those of native marketing students for selected upper-level marketing courses?

6. Do grade point averages of students for selected upper-level marketing courses, who took selected lower-level marketing courses at other regionally accredited colleges, differ from those of students who took selected lower-level marketing courses at Ferris State College?

7. Do course withdrawal percentages of transfer marketing students differ from those of native marketing students?

8. Do percentages of attrition of transfer marketing students differ from those of native marketing students?

9. Do percentages of attrition, for selected reasons, of transfer marketing students differ from those of native marketing students?

10. Do academic probation percentages of transfer marketing students differ from those of native marketing students?

11. Do graduation percentages of transfer marketing students differ from those of native marketing students?

12. Do academic accomplishments of male and female transfer marketing students differ from those of male and female native marketing students?

Hypotheses

The twelve null hypotheses to be tested are the following:

1. There are no significant differences in cumulative grade point averages between those of transfer marketing students and those of native marketing students during their college freshman and sophomore years.

2. There are no significant differences in grade point averages between those of transfer marketing students and those of native marketing students in four selected lower-level marketing courses.

3. There are no significant differences in cumulative grade point averages between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

4. There are no significant differences in cumulative freshman and sophomore grade point averages and their grade point averages for the first quarter of their junior year between those of transfer marketing students and those of native marketing students.

5. There are no significant differences in grade point averages between those of transfer marketing students

and those of native marketing students in five selected upper-level marketing courses.

6. There are no significant differences in grade point averages of students for five selected upper-level marketing courses, between those of transfer marketing students who had taken four selected lower-level marketing courses at other regionally accredited colleges and those of native marketing students who had taken four selected lower-level marketing courses at Ferris State College.

7. There are no significant differences in percentages of course withdrawals between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

8. There are no significant differences in percentages of attrition between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

9. There are no significant differences in percentages of attrition for selected reasons between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

10. There are no significant differences in percentages of students on academic probation between those of transfer marketing students and those of native marketing

students during their junior and senior years at Ferris State College.

11. There are no significant differences in percentages of graduation from a baccalaureate marketing curriculum between those of transfer marketing students and those of native marketing students at Ferris State College.

12. There are no significant differences in academic accomplishments between those of male and female transfer marketing students and those of male and female native marketing students at Ferris State College.

Summary

This chapter has defined the problem under study as well as discussed the need and purpose for studying the problem. Assumptions, delimitations, and limitations important to the research were noted. A listing of definitions of the terms used throughout this document also appeared. Twelve research questions to be answered were cited. Finally a null hypothesis to test was included to accompany each research question.

Chapter Notes

¹Dorothy M. Knoell and Leland L. Medsker, From Junior to Senior College: A National Study of the Transfer Student (Washington: American Council on Education, 1965), p. v.

²Interview with Otis Dickens, Ferris State College, Big Rapids, Michigan, 6 September 1985.

³Arthur Sandeen and Thomas Goodale, The Transfer Student: An Action Agenda for Higher Education (Gainesville, FL.: University of Florida, 1976), pp. 6-10.

⁴Julie Slark and Harold Bateman, Transfer Students' Academic Performance at the University of California and the California State Universities and Colleges and other Related Information (Santa Ana: Santa Ana College, [1983]), p. 4.

⁵Knoell and Medsker, pp. 91, 93.

⁶Carolyn R. Downey, A Follow-Up Study of 1975-78 Business Administration and Secretarial/Clerical Graduates Who Received an Associate in Arts and Sciences Degree from Ricks College and Transferred to a Four-Year College or University (Logan, UT.: By the Author, Utah State University, 1980), p. 17.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

A survey of the literature reveals that many studies have been conducted in the broad general area of transfer students. Only a limited amount of current research, however, has been done with marketing students enrolled in two-plus-two programs at four-year colleges.

The first part of this chapter contains a brief history of Ferris State College, summarizing many of the unique characteristics of its founder, goals and curricula. The college was unique in being an early developer of two-plus-two curricula. One of the long-standing goals of the institution was to provide an opportunity for graduates of various types of two-year institutions to continue their education at Ferris.

Chapter II also discusses (1) growth of two-year institutions, (2) articulation concerns, (3) classification of transfer students, (4) characteristics of transfer students, (5) transfer student satisfaction with two-year college experience, (6) aspirations of transfer students, (7) academic performance of transfer students, (8) academic

performance of students transferring to four-year schools of business, and (9) transfer policies and standards.

History of Ferris State College

This section is a summary of a more complete history of Ferris State College found in Appendix A, "Ferris State College," of this study.

Ferris State College was founded in 1884 by Woodbridge N. Ferris in Big Rapids, Michigan. It was, and continues to be, unique by endeavoring to prepare students for positions requiring career-oriented or professional education while, at the same time, stressing the personal development of each student. The primary aim of the founder was to prepare students for the everyday duties of life so they could make a living. Ferris thus kept his school in close contact with the needs of society. He formed the curriculum accordingly by adding and expanding courses as the market increased, and dropping courses when it decreased.

The college operated as a private institution until 1949, when Public Act 114-49 of the Michigan Public Acts of 1949 provided that Ferris become a state institution.

The school experienced exceptional growth from the original fifteen students to the current enrollment in excess of 10,000. Table 1 shows the Fall 1985 enrollment statistics and degrees granted in 1984-85.

Table 1. Ferris State College Enrollment Fall 1985, and Degrees Granted in 1984-85

<u>ENROLLMENT</u>		<u>NUMBER</u>
<u>School</u>	<u>Fall 1985 Total</u>	
Allied Health	1,102	
Arts and Sciences	2,508	
Business	4,235	
Education	436	
College of Optometry	197	
Pharmacy	362	
Technology	<u>2,069</u>	
Total	10,909	
<u>General Breakdown</u>		
Michigan residents (96.8%)	10,562	
Out-of-state residents (2.3%)	248	
Foreign students (.9%)	99	
Men (59.2%)	6,461	
Women (40.8%)	4,448	
Transfer students (11.4%)	1,243	
Veterans (1.0%)	107	
Bachelor degree students (52.9%)	5,773	
<u>DEGREES GRANTED</u>		<u>1984-85 Total</u>
Baccalaureate	1,516	
Associate	1,273	
Certificate	15	
Master	1	
Professional	<u>30</u>	
Total	2,835	

Source: Ferris State College, 1985-86 The Facts. Ferris State College (Big Rapids, MI.: Ferris State College, 1986), p. 4.

Ferris offers over one hundred and thirty educational programs through its seven divisions: (1) School of Allied Health, (2) School of Arts and Sciences, (3) School of Business, (4) School of Education, (5) School of Pharmacy, (6) School of Technology, and (7) College of Optometry. These programs lead to associate, bachelor, and master degrees as well as the Doctor of Optometry degree. Table 2 lists the educational programs.

The School of Business at Ferris State College was one of the original departments of the institution. In concert with the Ferris philosophy, the School of Business plans its programs to prepare students for employment in the business world. Students can choose from among more than forty programs and options listed in Table 2 requiring two, four, or five years of study.

Ferris State College makes diligent efforts to meet its goal in providing an opportunity for all graduates of regionally accredited two-year colleges to continue their education toward a baccalaureate degree.

The attainment of this goal is strengthened by the development of a vast number of such colleges within the State of Michigan. Table 3 lists and characterizes Michigan's two-year colleges whose graduates frequently continue their education at Ferris State College.

Table 2. Educational Programs Offered at Ferris State College, 1985-86

PROGRAMS**School of Allied Health**

B.S. Degree Programs (4 years)
 Industrial and Environmental
 Health Management
 Health Systems Management
 Medical Records Administration
 Medical Technology
 Nuclear Medicine Technology
 Nursing, Professional
Associate Degree Programs (2 years)
 Dental Assistant
 Dental Hygiene
 Dental Technology
 Medical Laboratory Technician
 Medical Records Technician
 Nuclear Medicine Technology
 Nursing, Technical
 Radiography (X-Ray)
 Respiratory Therapy

School of Arts and Sciences

B.S. Degree Programs (4 years)
 Biology, Applied
 Mathematics, Applied
 Social Services - Options
 Children, Youth and Delinquency
 Aging
 Mental Health and Substance Abuse
 Technical Communication
Associate Degree Programs (2 years)
 Career Programs
 Industrial Chemistry Technology
 Journalism
 Ornamental Horticulture Technology
 Social Services-Child Development
Pre-Professional Programs
 Pre-Arts
 Pre-Dentistry

Pre-Engineering
Pre-Law
Pre-Medicine
Pre-Mortuary Science
Pre-Optometry
Pre-Pharmacy
Pre-Science
Pre-Teaching-Options
 Elementary
 Secondary
Pre-Veterinary Science
General Studies

School of Business

Masters Degree (5 years)
 Accountancy
B.S. Degree Programs (4 years)
 Accountancy Department
 Accounting
 Accounting-Finance (dual degree)
 Computer Information Systems Department
 Computer Information Systems
 Computer Information Systems-
 Accounting (dual degree)
 Computer Information Systems-
 Management (dual degree)
 Computer Information Systems-
 Marketing (dual degree)
 Management Department
 Business Administration
 Business Economics
 Finance
 Insurance
 Insurance-Real Estate
 International Business
 Management
 Personnel Management/Industrial
 Relations
 Production Management
 Quantitative Business
 Small Business Management

Marketing Department
 Advertising
 Advertising-Public Relations Option
 Hospitality Management
 Marketing
 Professional Golf Management
 Retail
 Sales
Office Administration Department
 Administrative Services - Options
 Administrative Office Management
 Secretarial Administration
 Office Technology
 (Records and Word Processing)
Associate Degree Programs (2 years)
 Administrative Assistant
 Commercial Art
 Court and Freelance Reporting
 Diversified Business
 Executive Secretary
 Food Service Management
 Legal Assistant
 Legal Secretary
 Real Estate
 Retail Fashion Merchandising
Certificate Programs (1 year)
 Real Estate

School of Education

Masters Degree
 Occupational Education
B.S. Degree Programs (4 years)
 Allied Health Education
 Business Education
 Community School Education
 Criminal Justice - Options
 Generalist
 Law Enforcement Specialist
 Security Administration
 Mathematics Education
 Science Education

Table 2. (Con't.)

Trade-Technical Education	Construction Management	Electrical and Electronics Department
Recreation Leadership and Management	Electrical/Electronics	Electronics (Avionics)
Television Production	Engineering Technology	Electronics (Electrical Power)
Associate Degree Program (2 years)	Energy Management	Electronics (Industrial)
Audiovisual Production	Manufacturing Engineering Technology	Graphic Arts Department
	Plastics Engineering Technology	Printing
College of Optometry	Printing Management	Technical Illustration
	Surveying	Industrial Department
O.B. Degree in Optometry	Welding Engineering Technology	Computer Numerical Control Technology
(4 years, after Pre-Optometry)	Associate Degree (2 years)	Machine Tool Technology
Associate Degree Programs (2 years)	Automotive Department	Mechanical Engineering Technology
Ophthalmic Dispensing	Automotive Body	Plastics Technology
Optometric Technology	Automotive Machine	Technical Drafting and Tool Design
	Automotive Service	Welding Technology
School of Pharmacy	Heavy Duty Engine Technology	
	Heavy Equipment Service	
B.S. Degree in Pharmacy	Construction Department	
(3 years, after Pre-Pharmacy)	Architectural Technology	
School of Technology	Aerial Mapping Technology	
	Building Construction Technology	
B.S. Degree Programs (4 years)	Construction Engineering Technology	
Automotive and Heavy	Refrigeration, Heating and	
Equipment Technology	Air Conditioning Technology	
	Surveying Technology	

Sources: Ferris State College, 1985-86 The Facts, Ferris State College (Big Rapids, MI: Ferris State College, 1986), p. 4.

Table 3. Characteristics of Michigan Two-Year Colleges from Which Students Transfer to Ferris State College

College	Location	Year Founded	Control	Student Body	Enrollment Number	Faculty Number	Accreditation	Library Books	Calendar	Transfer Percentage
Alpena Community	Alpena	1952	Local	Coed	837	45	NCA	30,564	Semester	100
Baker Junior College of Business	Flint	1911	Private	Coed	1,635	...	AICS	9,000	Quarter	96
Bay de Noc Community	Escanaba	1962	State & Local	Coed	1,777	76	NCA	30,000	Semester	95
Charles Stewart Mott Community	Flint	1923	...	Coed	9,045	...	NCA	85,286	Semester	100
Delta	University Center	1961	Local	Coed	4,028	...	NCA	93,000	Trimester	98
Davenport College of Business	Grand Rapids	1866	Private	Coed	2,291	50	AICS; NCA	16,000	Quarter	90
Glenn Oaks Community	Centreville	1965	Local	Coed	1,450	...	NCA	...	Semester	...
Gogebic Community	Ironwood	1932	State & Local	Coed	791	46	NCA	19,232	4-1-4	95
Grand Rapids Junior	Grand Rapids	1914	Local	Coed	12,059	252	NCA	46,000	Semester	100
Henry Ford Community	Dearborn	1938	Public	Coed	16,500	220	NCA	80,000	Semester	...
Highland Park Community	Highland Park	1918	State & Local	Coed	2,700	...	NCA	30,000	Semester	100
Jackson Community	Jackson	1928	Local	Coed	1,888	109	NCA	36,000	Semester	100
Kalamazoo Valley Community	Kalamazoo	1966	Local	Coed	7,522	95	NCA	64,867	Semester	...

Table 3. (Cont'd.)

College	Location	Year Founded	Control	Student Body	Enrollment Number	Faculty Number	Accreditation	Library Books	Calendar	Coaster Percentage
Kellogg Community	Battle Creek	1956	State & Local	Coed	7,677	100	NCA	43,600	Semester	100
Kirtland Community	Roscommon	1966	...	Coed	1,000	22	NCA	34,000	Semester	100
Lake Michigan	Denton Harbor	1946	Local	Coed	3,500	53	NCA	70,000	Semester	100
Lansing Community	Lansing	1957	Local	Coed	5,744	171	NCA	95,536	Quarter	100
Macomb Community	Mount Clemens	1954	Local	Coed	31,452	361	NCA	139,800	Semester	...
Mid-Michigan Community	Harrison	1965	State & Local	Coed	751	35	NCA	18,721	Semester	100
Monroe County Community	Monroe	1964	Local	Coed	943	53	NCA	43,000	4-4-1	100
Montcalm Community	Sidney	1965	Local	Coed	410	22	NCA	22,000	Semester	100
Muskegon Business	Muskegon	1888	Private	Coed	1,430	23	AICS; NCA	10,000	Quarter	90
Muskegon Community	Muskegon	1926	State & Local	Coed	1,610	112	NCA	40,000	...	100
North Central Michigan	Petoskey	1958	State & Local	Coed	1,770	35	NCA	24,000	Semester	...
Northwestern Michigan	Traverse City	1951	State & Local	Coed	3,432	99	NCA	46,000	Quarter	75
Oakland Community	Bloomfield Hills	1964	Local	Coed	25,682	700	NCA	...	Semester	...

Table 3. (Cont'd.)

College	Location	Year Founded	Control	Student Body	Enrollment Number	Faculty Number	Accreditation	Library Books	Calendar	Coaster Percentage
St. Clair County Community	Port Huron	1923	County	Coed	3,871	105	NCA	40,000	Semester	100
Schoolcraft	Livonia	1961	State & Local	Coed	9,008	153	NCA	66,000	Semester	100
Southwestern Michigan	Dowagiac	1964	State & Local	Coed	1,304	42	NCA	26,000	Semester	100
Washtenaw Community	Ann Arbor	1965	Local	Coed	2,016	159	NCA	48,000	Semester	100
Wayne County Community	Detroit	1967	State	Coed	5,820	183	NCA	51,000	Semester	...
West Shore Community	Scottville	1967	Local	Coed	471	29	NCA	10,000	Semester	100

Sources: Marquis Professional Publications, Yearbook of Higher Education, A Dictionary of Colleges and Universities (Chicago: Marquis Who's Who, Inc., 1964), 16; pp. 273-293.

College Examination Board, The College Handbook 1965-66 (New York: College Entrance Examination Board, 1965), 23; pp. 721-7.

The majority of the two-year colleges listed in Table 3 have the following similarities:

1. They are co-educational.
2. They are either controlled locally, or by state and local cooperation.
3. They have been in existence for at least twenty-five years.
4. They operate on a semester calendar.
5. They are regionally accredited.
6. They serve primarily commuting students.

There are, however, the following dissimilarities:

1. They have enrollment numbers ranging from a low of 410 to a high of 31,452 students.
2. They have recorded library book numbers ranging from a low of 9,000 to a high of 139,800 volumes.
3. They have recorded faculty numbers ranging from a low of twenty-two to a high of 700 members.

Related Studies

Growth of Two-Year Institutions

Early studies cited the increase in both the number of two-year institutions as well as in the enrollment of these colleges. Burnett¹ noted the number of such colleges increased from 663 in 1959 to more than 1,100 in 1975. During the same period enrollment in two-year colleges increased from 660,527 to over 3,800,000.

Maxwell² estimated that by 1979, two-fifths of the students enrolled for the first time in higher education

would be enrolled in two-year colleges. Table 4 illustrates the growth pattern of two-year colleges both in number as well as in student enrollment.

Early descriptions of two-year colleges noted their roles as being essentially those of (1) preparation for occupations or a terminal function, and (2) preparation for student transfer to four-year colleges.

An Associate in Applied Science (AAS) degree was typically conferred upon completion of a career-oriented program, while an Associate in Science (AS) degree was awarded at the conclusion of a transfer-oriented study.

Eell's³ 1941 writings were largely devoted to the terminal function of two-year colleges. The 1947 President's Commission⁴ urged that two-year colleges design programs emphasizing occupational training. Again, in 1963, the Educational Policies Commission⁵ emphasized a similar function.

Medsker,⁶ however, in 1960 noted the emphasis by two-year colleges on the transfer function. He found that two-thirds of entering two-year students planned to transfer to four-year institutions.

Clark's⁷ 1960 study of San Jose City College found it was originally established primarily to offer vocational-technical training. It too, however, soon became transfer-oriented. This new orientation came about because two-year

Table 4. Growth of Two-Year Institutions in the United States, 1963-1983

Year	Number of Institutions by Control			Total	Public	Enrollment by Control and Gender		
	Total	Public	Private			Private	Men	Women
1963	634	375	259	844,512	735,029	109,483	532,823	311,689
1964	654	406	248	988,926	874,779	114,147	618,648	370,278
1965	679	420	259	1,172,952	1,041,264	131,688	733,639	439,313
1966	752	477	275	1,325,970	1,189,169	136,801	809,020	576,950
1967	793	518	275	1,512,762	1,372,053	140,709	914,836	597,926
1968	865	594	271	1,792,296	1,646,474	145,822	1,090,331	701,945
1969	888	636	252	1,976,658	1,846,724	129,934	1,190,711	785,947
1970	892	654	238	2,223,208	2,101,972	121,236	1,317,254	905,954
1971	934	697	237	2,485,911	2,365,867	120,044	1,449,158	1,036,753
1972	1,104	866	238	2,756,186	2,640,939	115,247	1,543,695	1,212,491
1973	1,140	891	249	3,010,049	2,889,621	120,428	1,650,551	1,359,498
1974	1,139	897	242	3,403,994	3,285,482	118,512	1,831,802	1,527,192
1975	1,128	897	231	3,970,119	3,836,366	133,753	2,165,344	1,804,775
1976	1,131	904	227	3,883,321	3,751,786	131,535	1,980,144	1,903,177
1977	1,155	920	235	4,042,942	3,901,769	141,173	1,964,781	2,078,161
1978	1,190	922	268	4,028,144	3,873,690	154,451	1,885,181	2,142,960
1979	1,193	925	268	4,216,666	4,056,810	159,856	1,922,005	2,294,661
1980	1,269	941	328	4,526,287	4,328,782	197,505	2,047,033	2,479,254
1981	1,274	940	334	4,716,211	4,480,708	235,503	2,124,465	2,591,746
1982	1,296	933	363	4,772,000	4,520,000	252,000	2,170,000	2,602,000
1983	1,271	916	355	4,723,000	4,459,000	264,000	2,131,000	2,592,000

Sources: National Center for Education Statistics, Digest of Education Statistics, Annual; and Financial Statistics of Institutions of Higher Education, annual, as quoted in U.S. Department of Commerce, Bureau of the Census, National Data Book and Guide to Sources-Statistical Abstract of the United States: 1986, 106th ed. (Washington, D.C.: U.S. Government Printing Office, 1985), p. 153.

National Center for Education Statistics, Fall Enrollment in Higher Education, 1981, as quoted in W. Vance Grant and Thomas D. Snyder, Digest of Education Statistics 1983-84 (Washington, D.C.: U.S. Government Printing Office, [1983]), p. 102.

colleges were faced with students who became "a large market of free buyers." These students shaped the colleges of their choice, and they chose the transfer function.

Roueche's⁸ 1967 writings indicated that two-year colleges claimed to be multi-purpose and comprehensive, yet typical research focused on only one segment of the institution's students, those who transfer to four-year institutions.

Articulation Concerns

The transfer function, in particular, of two-year colleges became the subject of increased concern and controversy. Seventeen problems were among the concerns associated with transferring from a two-year to a four-year college. These were presented by various researchers as follows:

1. Admissions

The admissions criteria at some senior institutions discriminated against transfer students. Some colleges required different grade point averages for admission from different two-year institutions. Repetitive aptitude and/or achievement testing were also required. Extensive placement testing was demanded even after admission. Admissions officers did not always have the expertise for credit evaluation. As a result some transfer students did not receive an evaluation of previously earned credits until after the initial academic planning session. (Sandeem and Goodale)⁹

2. Articulation Office

Very few four-year colleges had specific staff members especially skilled in academic and/or student affairs to meet the needs of transfer students through developing policies and programs for them. (Sandeen and Goodale)¹⁰

3. Attitudes Toward Transfer Students

Unfavorable attitudes toward transfer students at the four-year college were exhibited by faculty, administration, and native students. It was difficult to establish an effective climate for transfer at institutions where transfer students were viewed as "second class citizens." (Sandeen and Goodale)¹¹

4. Career Planning and Placement

Many transferees were not certain of which academic major to pursue. Career exploration opportunities for transferees may have been either lacking or nonexistent. Recruiters have not been aware of the diversity of backgrounds and attitudes of transfer students. (Sandeen and Goodale)¹²

5. Housing

Many senior colleges gave first priority in their on-campus housing to incoming freshman students. As a result, transfer students received the least attractive housing or none at all. Again, because they enrolled at times in the academic year other than in the fall, they may not have had an equal chance to live on campus and become an

active part of student life. For those who did live in campus housing, student assistants and resident hall advisory staff may not have been aware of the background and special needs of transferees, many of whom never lived in on-campus housing before.

Although many transfer students did not desire to live on campus, those who did may have felt that they were given the lowest priority the institution had. For those desiring to live off-campus, sufficient information about these facilities may not have been provided. Thus, the perception of transfer students that they were not the "preferred" new students at the senior institution may have been reinforced. (Sandeem and Goodale)¹³

6. New Student Programs

Many institutions once again gave freshman students first priority in structuring college orientation programs. While students transferring to a senior institution for the first time had many of the same needs in orientation as did freshmen, they may have felt insulted by being identified with beginning freshmen in the same orientation classes. Institutions failed to recognize such a realistic factor and to develop special orientation programs for their transfer students. Nontraditional academic experience, social expectations, age, family responsibilities, commuting, and work schedules prevented or made unwilling some transfer students' participation in "regular" new student programs. Particularly important was the fact that these orientation

programs failed to address particular questions transferees had, such as course selection, evaluation of academic credit, housing, and financial aid opportunities. (Sandeen and Goodale)¹⁴

7. Publications

Most college catalogs, student handbooks, financial aid brochures, and descriptions of individual academic programs did not address the problems of transfer students. The publications did not reflect their problems even though there may have been a large number of transfer students on the campus. (Sandeen and Goodale)¹⁵

8. Recognition and Awards

Institutions usually presented awards to certain graduates and other outstanding students for various academic and extra activity achievements. Many senior institutions did not recognize the merit of transfer student accomplishments at their previous institutions as part of their overall personal records. (Sandeen and Goodale)¹⁶

9. Registration

Transfer students traditionally enrolled at the senior institution at times of the academic year other than just in the fall. Some institutions considered these enrollments as "late" and imposed serious penalties. Many courses as well as entire programs were "closed." Transfer students needed this type of information prior to their arrival on the campus of the senior college. (Sandeen and Goodale)¹⁷

10. Research

Institutions have not usually studied their own transfer students. Evidence indicated significant differences in socio-economic background, academic performance, and professional aspirations between transfer students and native students. Senior institutions could have benefited significantly by paying close attention to this data. (Sandeen and Goodale)¹⁸

11. Student Activities

The out-of-class life of a campus may have been viewed very differently by transfer students. Again, they were treated as freshmen by the institution and given no special consideration in various student activities. Since they planned to attend the senior institution for only two years, they may have been reluctant to get involved in campus activities, fraternities and sororities, student publications, and student cultural productions. Moreover, they believed themselves to be placed in a disadvantageous position by native students who controlled access to student activities and had spent two years working their way up to leadership positions. Thus, some transfer students complained that they did not feel actively involved in the social, political, and recreational life of the institution. It was not surprising to learn that transfer students who had been student leaders at their previous institutions became almost totally inactive after transfer. The transferees also tended to have much less identity with the

senior college than did their native student peer group. (Sandeen and Goodale)¹⁹

12. Student Financial Aid

Discriminatory practices were also found in student financial aid programs. Some assistance was not available on an equal basis to transfer students because of the priority given to incoming freshmen. Scholarships were sometimes available only to new freshmen students, even though transfer students comprised a large percentage of the student enrollment. Transfer students may have been ineligible for financial aid because their date of acceptance at the four-year college did not coincide with the traditional financial aid deadlines.

Once again communications may have been poor in providing transfer students sufficient information about financial aid programs prior to their transfer. Confusion may also have existed regarding the possibility of continuing loan and grant programs from one institution to another. (Sandeen and Goodale)²⁰

13. Academic Advising

Academic advising was a crucial problem for the transfer student. The neglect of proper advising existed at the two-year institution as well as at the senior college. There were instances when transfer students heeded the advice of their advisor at the two-year college in selecting courses but were later required to take additional lower-level courses or repeat parallel course work if the contents

were considered inadequate or inappropriate by the senior institution. (Sandeen and Goodale,²¹ Downey²²)

14. Communication

It was found that transfer student progress reports, issued by four-year colleges to two-year institutions, lacked quality information and proper timing. Rather than causing problems, this information should have been used to assist in counseling potential transfer students and describing existing conditions of two-year colleges' transfer programs. (Slark and Bateman)²³

15. Time Requirements

If transfer students' previous academic work had not been assessed prior to their enrollment at the senior institution, and if there had been inadequate communication regarding the students' programs between the two institutions, the transferee was likely to encounter serious academic problems, and loss of time in reaching a graduation goal.

Some transfer students actually spent much of their junior year taking lower-level courses which they had not taken at the two-year college or had taken but were denied transfer credit.

Transfer students fared better at certain types of four-year colleges than at others. Colleges that actively recruited transfer and other nontraditional students were more liberal in granting transfer credits. Small colleges, private colleges, and nonmembers of the American Association

of

gra

in

fer

dar

lor

nin

thi

com

tra

ad-

tim

(Sa

suc

two

ind

did

suc

lac.

Onl.

art.

of Collegiate Schools of Business were more liberal in granting credit. Also, colleges that were highly selective in admissions were slightly less liberal in granting transfer credit than were colleges with lower admissions standards.

Most transfer students did not complete their bachelor degrees in the traditional eight semesters. Seventy-nine percent took longer. In fact, 4 percent took over thirty semesters from their initial registration to degree completion. Forty percent had periods of lapsed registration. Students transferring to schools of business administration, however, spent about one-half a quarter less time than did native students in upper-division studies. (Sandeem and Goodale,²⁴ Downey,²⁵ Altman,²⁶ Fleishan²⁷)

16. Predictors of Success

There was a lack of reliable valid predictors of success of transfer students. A grade of "C" issued by some two-year colleges was found to be meaningless as a success indicator at four-year institutions. Test scores also did not provide efficient distinguishing predictors between success and failure. (Knoell and Medsker)²⁸

17. Articulation Agreements

Many transfer students became the victims of the lack of cooperation between and among various institutions. Only 34 percent of the colleges had some type of written articulation agreement between two- and four-year schools.

In the absence of specific written agreements among institutions, transfer students often were subjected to arbitrary decisions made by admissions officers, faculty, and other officials. (Krzystofik and Bridgman)²⁹

These seventeen problems may be summarized into three major concerns: (1) lack of sufficient information being provided by the two types of colleges to each other and to students, (2) lack of understanding on the part of students, faculty, and administrators about the programs and requirements of the colleges, and (3) lack of strong efforts of cooperation by each college involved.

Classification of Transfer Students

Willingham classified transfer students into the following seven groupings:

1. The Articulated Vertical Transfer
Students who transferred from a two-year college to a four-year college or university. This represented the largest group of transfers.
2. Traditional Horizontal Transfer
Students who transferred from one four-year college to another four-year college. At one time, this form of transfer accounted for essentially all movement of undergraduate students among institutions. It still represented one-fourth of the total.
3. Nontraditional Transfer
Students who transferred from innovative programs to other colleges and people who had been out of college for a long time.
4. Reverse Transfer
Students who transferred from a four-year college to a two-year college.

5. Open-Door Transfer
Students who transferred from a two-year college to another two-year college.
6. Double Reverse Transfer
Students who transferred from a four-year college to a two-year college and then back to a four-year college.
7. Vocational Transfer
Students who transferred from some type of vocational school or program to a four-year college.³⁰

Characteristics of Transfer Students

It has been found that student characteristics of the freshman class at two-year colleges tended to be almost indistinguishable from the high school graduating class, and the two-year college transfer group to be very similar to the native student population found in four-year colleges. Researchers reported, however, several characteristics of the typical two-year college student to be somewhat different in comparison to many native students at four-year institutions. Many two-year colleges attracted older, non-traditional students, while the universities attracted younger, more traditional students.

Knoell and Medsker reported that two-year college students were the following:

1. High school underachievers and were taking advantage of one more chance to demonstrate an ability to do satisfactory college work
2. Late deciders about college and had high school deficiencies
3. Immature, emotionally and intellectually unready to enter a four-year college
4. Insufficiently motivated and uncertain

5. Capable students who lacked financial backing for college attendance away from home or who desired to attend a smaller, less formal college for the first two years³¹

The same researchers found most transfer students to be white, Protestant, of native-born parentage, and under twenty-one years of age when they entered the senior institution. There were more men than women in the transfer group, with the women's high school record being better than the men's. A majority took a general or college preparatory program in high school and graduated in the upper half of their class.

Transfer Student Satisfaction with Two-Year College Experience

The transfer students tended to give somewhat negative reasons for choosing a two-year college, but gave high ratings as to the quality of the education they received. They praised both their two-year college instructors and the scope of the curricular offerings. Two-year college counseling and advising received higher ratings than did similar services offered by four-year institutions, but the ratings were less favorable than those given to the various facets of instruction. On the whole, transfer students were very well satisfied with their experience in the two-year colleges and experienced few serious difficulties in the four-year institutions.

Allred and Wingfield³² also found a very high rate of satisfaction among two-year college students. Only 7.5 percent were dissatisfied with their educational experience. Fifty-six percent of all respondents and 70.6 percent of the graduate respondents were in jobs related to their field of training. Eighty percent felt they met their objectives and 15.5 percent were enrolled in an educational program at the time of the study. Reasons given for not meeting their objectives were conflicting job hours, financial problems, change in educational goals, or obtaining a job. None appeared to be institutionally related.

Aspirations of Transfer Students

Some studies have examined and found differences between transfer and occupational students. For example, Munday³³ found that transfer students scored higher on academic aspirations than did occupational students. Studies of female students often showed no academic differences at all.

Undergraduate students often have had a difficult time selecting their major academic field of study. Many four-year colleges and universities reported that over 50 percent of their undergraduates changed their academic majors at least once during the four-year period. Knoell and Medsker³⁴ found that 25 percent of students transferring to four-year colleges had not committed themselves to an academic major at the time they completed their work at the

previous institution. Another 25 percent had already changed majors before transferring, and almost one out of five changed majors after transferring to a four-year college.

Cross³⁵ reported that occupational aspirations of transfer students were significantly different from those of native students. While only 64 percent of students enrolled in two-year colleges aspired to managerial and professional occupations, 89 percent of students at four-year institutions did so.

Astin, Panos and Crenger³⁶ found that educational aspirations of transfer students varied from those of native students. Generally speaking, students who transferred to four-year institutions from two-year colleges had lower educational aspirations than did native students. Thirty percent of the two-year college students aspired to education beyond the bachelor's degree, while 55 percent of the four-year college students aspired to that level.

Academic Performance of Transfer Students

The academic ability of students has been one of the most thoroughly researched areas of higher education. The academic success of transfer students at the senior institution has also been the subject of several studies. Among the various measurements of academic achievement were grade point averages, changes of academic major, course withdrawals, and percentage of students on academic probation.

Researchers failed to find, however, any one accurate indicator for predicting success for all students, in all majors, and across all institutions and states. The success patterns of transfer students have also presented a complicated problem since the student's academic performance at a senior college was an outcome of a subtle accommodation between their attributes and the senior institution's characteristics or of those of the department in which they concentrated their studies. The transfer student's success was thus a function of (1) the student's characteristics, (2) the range of open alternatives when choosing the upper-level institution, (3) the academic standards, (4) the total climate of the senior college, and (5) the interaction between student characteristics and the institution.

Many transfer students from two-year colleges exemplified the description Cross³⁷ gave to the "new" students in higher education. This new clientele consisted of students who simply had not been part of higher education before, and presented a real challenge to many colleges. Since many of those students had not been high academic achievers, some colleges may have feared they would have to "lower their academic standards" to accommodate them. Those students, for the most part, were not in college to become academic scholars but to gain a better job and a better life.

Many of the "new" students may have had rather low opinions of themselves as academic learners, and if they perceived that the institution viewed them somehow as "second-class citizens" it was unlikely that they would realize much success. The "disadvantaged" label given to many of these students was an insult and a "predisposition" to failure for some of them.

It was usual for institutions to require and receive test results relating to the student's academic aptitude, and national norms have been available on these tests for many years. There have been a large number of studies in this area, with practically all indicating that mean scores for students attending four-year colleges exceeded those of students in two-year colleges, and that two-year college students scored higher as a group than did high school graduates who did not go on to college.

In Cooley and Becker's³⁸ study involving fourteen measures of ability--ranging from reading comprehension, mathematics ability, and biology to vocabulary information, creativity, and abstract reasoning--the two-year college group fell between four-year college and noncollege groups.

Knoell and Medsker³⁹ also examined the mean scores earned by native and transfer students on various academic and achievement tests at a number of institutions as possible factors relating to the differences in upper-division grades earned by the two groups. The several statistical analyses led to the general conclusion that graduates who

began their degree work in the universities as freshmen had somewhat greater academic aptitude and ability than did those who began their work in a two-year college.

Differences in transfer students' ability or readiness for college work appeared to be useful as explanatory factors in the analysis of differences in grades earned at the upper-division level in the various institutions. Native students who were judged to have greater academic ability earned higher grades in the upper division although the lower-division grades of the two-year college students were often higher than those of the native students.

Knoell and Medsker⁴⁰ reported the higher academic ability of native graduates from four-year colleges made it appear unreasonable to expect transfer students to compete at the same level. It was also noted that transferees had to make personal as well as academic adjustments at the senior college.

The value of "C" grades earned in a two-year college as an indication of a student's ability to do satisfactory work at the upper division or in the major field has been viewed with skepticism. A "C" grade obviously could have had different meanings when given by different instructors to different students for different reasons. The same researchers believed this was probably as it should have been, but it would have been a mistake to evaluate "C" grades out of context.

Knoell and Medsker's⁴¹ study also showed the two-year college student most likely to succeed in a four-year institution to be one who performed well both in high school and in the lower-level college. Two-year college grades were more highly related to performance after transfer than was high school performance. Academic performance of the transfer student was also viewed as being consistent with the evaluation of the instructional quality received in the two-year college.

The best overall academic record was made by young students who enrolled in a two-year college immediately after high school, stayed in the lower-level college for two full years and transferred, without a break, to a four-year institution.

On the other hand, the poorest performance record was made by what were often regarded as "late bloomers," i.e., males with poor high school records who earned "C" grades in two-year institutions (which were high enough to transfer but were poor indicators of ability to do further college work). Another group which experienced difficulty after transfer were students who worked at full-time jobs while attending two-year institutions, often taking three or four years to complete the lower-division program.

Goodarznia⁴² found that transfer students performed better than native students in their college freshman year. When transfer was made in the sophomore year, transfer shock

A

t

q

q

st

im

co

be

tw

the

his

the

the

the

The

of

ience

inst

was evident as native students performed better than transfer students when comparing grade point averages of the first quarter of the sophomore to the freshman year. Native students also performed academically better than did the transfer students in the entire sophomore year.

Knoell and Medsker's⁴³ analysis showed that the grades of most transfer students improved over the period they spent in the two-year college, declined in the first quarter after transfer, and then improved in successive quarters, at least for those who persisted to graduation.

The same researchers believed that transfer students should have expected and accepted grade point differences immediately after transfer since transfer shock was so very commonplace for first-quarter transferees. However, they believed the decrease in grade point average experienced by two-year college students after transfer may have placed them at a disadvantage in the senior institution.

At many senior colleges native students also earned higher grade point averages in the upper division than did their classmates who were transfer students. The grades of the native student group were found to improve steadily as they progressed through their baccalaureate degree programs. The transfer graduates did not show the same steady pattern of improvement in grades because of the drop they experienced when they began their studies at the four-year institution.

The same data show about 30 percent of the transfer students who graduated with a baccalaureate degree earned grade point averages below "C" for at least one semester in the upper division compared with only 20 percent of the native graduates.

The average semester grades for the total group increased from 2.27 for the first semester after transfer to 2.42 for the second, 2.54 for the third, and 2.68 for the fourth, for a gain of 0.04. The mean grade point average of the graduates was 2.57 for the first period after transfer and 2.84 for the last.

The analysis also indicated that transfer students with very high ability, i.e., in the upper quintile, did not experience a serious handicap in competing with native students for grades which would qualify them for admission to graduate school. A few high ability transfer students suffered a considerable drop in grades after transfer, but most earned grades which were about as high as those of the native students with similar ability.

Sandeen and Goodale⁴⁴ emphasized the fact that measures of academic aptitude and achievement, in most cases, were based on traditional methods. In the growing diversity of higher education, there were many institutions, most notably the two-year colleges, that engaged in new and non-traditional methods of academic evaluation. Thus, he believed some transfer students who may have appeared to be less capable or to have lower mean scores on achievement

tests may have been shortchanged by the process, since they were matriculating in a nontraditional system. Moreover, many of the students who entered the lower-level institutions were older than their four-year colleagues and were much more likely to be engaged only part time in their studies. Traditional academic measures did not fit those students very well.

Bulkley,⁴⁵ in his studies of students transferring to Michigan State University (MSU), found a similar pattern of academic performance. His study showed that students performed less well at MSU than prior to their transfer from a two-year college. Students who transferred from four-year colleges, however, earned higher grade point averages at MSU than did students who transferred from two-year colleges. Transfer students did not graduate at a rate equal to native MSU students, but those from two-year colleges graduated at rates comparable to those who transferred from four-year colleges.

Differences in percentages of degree completion were noted among different student types as well as college types. Dragon⁴⁶ found withdrawal from colleges by transferees to be actually lower than among the native group. The reasons for withdrawal, dropping out, and stopping out were also not what they seemed to be.

Cope and Hannah disputed the belief that attrition was high after transfer. They found the percentage of transfer students dropping out was not as large as was once

estimated, especially among the talented. Their study noted the following five additional characteristics of transfer student withdrawals:

1. Pre college admissions tests were of little value in detecting dropout potentials.
2. A large percentage of withdrawals either returned or transferred after a short time of withdrawing.
3. A large percentage re-entered to earn their intended degree.
4. Lifetime earnings of those not earning a degree were almost as high as those who graduated.
5. Dropping out seemed to have little negative effect on their sense of self-worth, career choice or marriage success.⁴⁷

Trent and Ruyle⁴⁸ found that only about 10 percent of those who began their college careers in two-year colleges had obtained their bachelor's degrees four years later, compared with 27 percent for state college entrants, 36 percent for those entering the universities, and 49 percent for those entering private colleges and universities.

Knoell and Medsker's⁴⁹ studies showed that 62 percent of the two-year college transfer students received their baccalaureate degrees within three years after transfer, and 9 percent were still enrolled at the beginning of the fourth year. It was estimated that at least 75 percent of the transfer students would receive their baccalaureate degrees eventually, including some who dropped out and

transferred to other institutions and others who planned to re-enter the same institution. While the eventual graduation rate of transfer students would apparently be good, fewer than one-half of the students graduated on time, i.e., at the end of two-plus-two or one-plus-three year programs.

The percentages of women found by Knoell and Medsker⁵⁰ who graduated two and three years after transferring from two-year institutions were somewhat higher than those obtained by the men. The percentage of women who graduated on time was fifty-five compared with only 42 percent of the men. However, attrition among the women by the end of the third year was a little higher than that among the men, with a net result that the eventual graduation record of the men was probably slightly better than that of the women.

The most distinguishing difference Knoell and Medsker⁵¹ found between men and women was in the percentages of voluntary and forced withdrawals. The women tended to withdraw voluntarily (largely for personal reasons) with good grades, while a large percentage of the men were dismissed from the four-year colleges with poor grades. More than 40 percent of the men who dropped out were dismissed, compared with only 25 percent of the women. The superior high school and two-year college performances of the women were seen to be, in part at least, responsible for their lower rate of academic dismissal after transfer.

a
t
th
st
la
wit
tut
attr
perc
leve
decre
those
2.70,
for t
Group

Gender differences in outcomes at various points in the study appeared to be related to differences in choice of major, as well as to academic and personal factors. Women in teacher education programs, for example, had a high probability of graduating on time from most colleges. Men who enrolled in engineering programs, however, had a rather low probability of graduating two years after transfer.

In the same study by Knoell and Medsker,⁵² both grade-point achievement and amount of credit earned in two-year colleges were important factors in the success of the students after transfer. About two-thirds of the transfer students earned two-year college averages below 2.60, and approximately one-third below 2.40. About 6 percent of the transfer students had cumulative averages below 2.00 for their first two years of college. Nearly one-half of the students with averages below 2.00 dropped out a short time later, most of them with poor or failing grades. Students with averages between 2.00 and 2.30 from two-year institutions were somewhat more successful, with a total attrition rate of slightly more than one-third, including 27 percent who withdrew with poor or failing grades. As lower-level college averages increased over 2.30, attrition decreased accordingly. Attrition was only 28 percent for those with lower-level college averages between 2.40 and 2.70, 21 percent for those between 2.80 and 3.10, 18 percent for those between 3.20 and 3.50, and 12 percent for the group above 3.50. Percentages of students who graduated on

or
t

or
1.
in
sa.
was
age
were
was
stud

time also rose, with increases in two-year college averages. Only 31 percent of those with averages between 2.00 and 2.30 graduated two years after transfer, compared with nearly 60 percent of those with averages of 3.20 and higher.

While only one-third of the dropouts studied by Knoell and Medsker⁵³ were dismissed for poor scholarship, another third were earning grade point averages below "C" when they withdrew. Some students in this latter group of dropouts would probably have been subject to dismissal if they had persisted longer. In some instances students with grade point averages less than "C" would find it almost impossible, both mathematically and academically, to achieve a "C" overall average during the remainder of their degree programs. Thus, about 20 percent of the total transfer group dropped out after failing to perform at the minimally acceptable level required by the degree-granting institutions.

The group which was dismissed earned an average of only 1.33 for the first quarter after transfer and about 1.45 for each succeeding quarter, as the number of students in this category diminished with each wave of new dismissals. The record of the group which withdrew voluntarily was slightly better, with a cumulative upper-division average of 1.99. The assertion that students who dropped out were just as capable as those who persisted and graduated was found in this study to be false, although many capable students did withdraw for various reasons.

The record of students who transferred with junior standing in Knoell and Medsker's⁵⁴ research was much better than that of students who transferred with lower class standing, in terms of both persistence and on-time completion of the program. Students transferring below the junior level experienced an attrition rate of 45 percent, compared with only 26 percent in the group of junior level transfers. Furthermore, only 35 percent of the sophomores graduated within three years after transfer. Since only 20 percent of the group was still enrolled and expected to graduate during the fourth year after transfer, the total percentage of graduates was probably no more than fifty-five, compared with at least 75 percent of the students who completed two years at the two-year college. Thus, the percentage of students who earned degrees after one-plus-three years was considerably less than the percentage who earned degrees after two-plus-two years of college. The data presented showed very clearly the superiority of the performance of the group which transferred as juniors, whether as a result of better preparation in the two-year college, more adequate screening before transfer, or enrollment in courses in their major field after transfer at the junior level. Table 5 summarizes the results of the study of transfer students' grade point averages at various types of four-year institutions two years after transfer.

C
t
G
P
A

Fr
Tr
cat

* A
d
+ T
t
s
++Ty
Ty
Ty

Table 5. Grade Point Averages of Students Two Years After Transfer from Various Types of Institutions*

Semester After Transfer+	Status at End of Study	Type of Four-Year Institution++					All Col- leges Total
		1	2	3	4	5	
First	Graduated	2.56	2.57	2.58	2.53	2.70	2.57
	Still enrolled	2.24	2.23	2.28	2.39	2.36	2.27
	Withdrawn	1.97	2.26	2.11	2.20	1.57	2.05
	Dismissed	<u>1.27</u>	<u>1.48</u>	<u>1.38</u>	<u>1.36</u>	<u>1.31</u>	<u>1.33</u>
	Total	2.20	2.36	2.30	2.31	2.20	2.27
Second	Graduated	2.69	2.67	2.67	2.65	2.90	2.68
	Still enrolled	2.41	2.28	2.36	2.37	2.47	2.37
	Withdrawn	2.16	2.22	2.20	2.37	2.08	2.20
	Dismissed	<u>1.45</u>	<u>1.43</u>	<u>1.49</u>	<u>1.57</u>	<u>1.87</u>	<u>1.47</u>
	Total	2.41	2.45	2.42	2.42	2.54	2.42
Third	Graduated	2.75	2.78	2.72	2.73	2.89	2.75
	Still enrolled	2.42	2.33	2.37	2.36	2.47	2.39
	Withdrawn	1.96	2.30	2.04	2.15	1.63	2.04
	Dismissed	<u>1.42</u>	<u>1.49</u>	<u>1.50</u>	<u>1.39</u>	<u>1.54</u>	<u>1.45</u>
	Total	2.55	2.59	2.52	2.49	2.53	2.54
Fourth	Graduated	2.85	2.86	2.82	2.80	2.74	2.84
	Still enrolled	2.54	2.48	2.47	2.41	2.21	2.49
	Dismissed	<u>1.66</u>	<u>1.35</u>	<u>1.21</u>	<u>1.58</u>	<u>1.38</u>	<u>1.46</u>
	Total	2.71	2.70	2.66	2.59	2.42	2.68
Cumula- tive Grade Point Average	Graduated	2.71	2.73	2.70	2.68	2.81	2.71
	Still Enrolled	2.37	2.31	2.37	2.38	2.41	2.36
	Withdrawn	1.87	2.20	2.06	2.22	1.49	1.99
	Dismissed	<u>1.28</u>	<u>1.39</u>	<u>1.32</u>	<u>1.41</u>	<u>1.49</u>	<u>1.32</u>
	Total	2.28	2.43	2.36	2.36	2.24	2.34

Source: Dorothy M. Knoell and Leland L. Medsker,
From Junior to Senior College: A National Study of the
Transfer Student (Washington: American Council on Edu-
 cation, 1965), p. 28.

* Average for first two years after transfer (or until with-
 drawal, if occurred before end of second year).

+ Third quarter was equated to second semester, fourth quar-
 ter to third semester, and sixth quarter to fourth
 semester.

++Type 1 = Major state univ. Type 4 = Private univ.
 Type 2 = Teachers colleges Type 5 = Technical univ.
 Type 3 = Other state inst.

•

C

m

A
t

wh

ve

gr

tr

per

edu

Knoell and Medsker's⁵⁵ study also revealed that economic factors played a very major role in the attrition of two-year college transfer students. Many transferred without a satisfactory plan for meeting their expenses at the four-year institutions, while others had personal factors such as family illness or other unanticipated expenses which drained their income or savings. Economic and motivational factors were interwoven for still another group of dropouts: those who found opportunity for general employment, or employment related to their degree programs.

Knoell and Medsker's⁵⁶ research further showed that a large proportion of students who withdrew voluntarily did so for financial reasons, while those who were dismissed tended to do so as a result of motivational problems. Some of these motivational problems were probably present when the students graduated from high school, including a lack of clearly defined interests, values, career plans and, perhaps most important of all, a realistic self-image.

Academic Performance of Students Transferring to Four-Year Schools of Business

Various areas of business were popular majors to which two-year college students transferred. A Hawaii University⁵⁷ study of graduates with two-year college backgrounds indicated that 14 percent were business administration majors, 40 percent arts and sciences majors, 14 percent tropical agriculture and human resources, 14 percent education, and 18 percent in other curricula.

Several researchers have investigated the success of such students transferring from two-year institutions to four-year colleges of business. In accordance with research on transfer students as a general group, it has been reported that business students also experienced transfer shock.

Sutherland⁵⁸ attempted to determine the academic quality of transfer students entering a college of business administration. Transfer shock was here evidenced by significant differences between the means of the entering transfer students' grade point average and the means of the grade point average earned at the end of the first semester in the college of business administration. But again, in accordance with research on transfer students as a group, business transfer students' grade point averages increased after the transfer shock was over.

Slark and Bateman,⁵⁹ in a 1981 project, studied the academic performance of students transferring to universities with majors, for the most part, in business administration, accounting, finance, management, and marketing. They found the mean grade point average earned at the two-year college to be 2.85 but at the state university 2.72. In a later study completed in 1983⁶⁰ the same researchers found the mean grade point average at the lower-level college to be 2.89 in 1980-81 and 2.81 in 1981-82. Students who transferred, however, had a mean grade point

average at the senior institution of 2.67 in 1980-81 and 2.69 in 1981-82.

Fleishans⁶¹ also studied the success of two-year college transfer students in a four-year school of business. He found the grade point averages for native and transfer students were almost equal at the beginning of the junior year. Native students, however, outperformed the transfer students for their final six quarters of academic study, concluding with higher grade point averages at the end of their degree programs. He also noted that native students outperformed transfer students in eight business administration core courses. An unusual finding was that nonbusiness transfer students earned higher grades in those eight business administration core courses than did transfer students who were business majors. The time transfer students required to complete their baccalaureate degrees in business was different from that required by transfer students as a group. The same study showed that students transferring to business majors actually spent about one-half quarter less time than did the native students in the upper division. Transfer students were, however, on academic probation twice as many quarters as were the native students.

Sargent⁶² was another researcher who studied the academic achievement of students who transferred to Michigan State University. He found the academic achievement of students transferring from Michigan community colleges to be better for those entering certain curricula. Among the

curricula in which transfer students excelled were business, natural science, and education.

Desmond,⁶³ in examining the effectiveness of lower-division preparation for majors in business administration and engineering, found good transfer preparation provided by two-year colleges.

Dragon⁶⁴ also investigated the success of lower-level college transfer students at four-year colleges of business. His study used the final overall grade point average, final grade earned in the capstone course requirement and grades earned in specialized fields of accounting, finance, marketing, management, and organization behavior. In addition, comparisons were made between native resident-native commuters and transfer resident-transfer commuters. The findings indicated no significant differences in accomplishment of native and transfer students in the areas of accounting, finance, management, organizational behavior, and final grades earned in the capstone course. Transfer students, however, performed with a significantly higher degree of academic success than did the native student, as measured by final cumulative grade point average and grade point average in the area of marketing.

Suspension rates for transfer students were the same as for native students, but voluntary withdrawal rates of transfer students were less than for those of the native group.

Groft⁶⁵ did research on the success of transfer and native students in accounting studies. He found no significant differences between native and transfer students' final grades in Intermediate Accounting I classes. Likewise, there appeared to be no significant difference between native and transfer students' achievement based on the students' age, gender, or the size and type of four-year institution.

Differences did occur, however, in elementary accounting achievement, persistence in completing intermediate accounting, and in "A" and "B" grades earned. Elementary accounting achievement of native students in the junior class was significantly higher than that of the two-year college transfer students. Native students were more persistent than transfer students in completing Intermediate Accounting I. Native students also earned a larger percentage of "A's" and "B's" than did transfer students in intermediate accounting.

Pion⁶⁶ assessed any problems encountered by management and marketing transfer students who had completed the introductory course in their major at a public two-year college. He found that the introductory course in their major did not handicap their future academic success at the four-year institution. The grade point averages of transfer students were not significantly different from those of native students. Transfer students' grade point averages in their majors were virtually identical to those of native

students, while native students outperformed transfer students in overall grade point average.

Transfer Policies and Standards

Colleges made efforts toward more effective articulation in attempts to overcome many of the problems associated with transferring from two-year to four-year colleges. Evidence indicated that many articulation problems between two- and four-year institutions in business education were resolved. Altman⁶⁷ found over 90 percent of the courses presented for transfer were accepted. Problem courses for transfer were mathematics and accounting. According to senior college officials, these courses did not parallel senior college courses. He found that, while most colleges had a policy for giving credit for various forms of non-traditional learning, few actually did it.

While some four-year colleges admitted transfer students indiscriminately on the basis that they must be given an opportunity to attempt programs of their own choosing, articulation problems were still prevalent. Mohr and Sears⁶⁸ saw the articulation process traditionally inhibited and characterized by policies based on excessive bureaucratization, antiquated premises, and general lack of interest. Much of the inhibition centered around faculty and administrator reluctance. They found faculties who attempted to protect themselves by raising questions on the following thirteen issues:

1. Equality of credits
2. Institutional image
3. Exactness of course content
4. Grading practices
5. Gender
6. Race
7. Institutional methodologies
8. Course prerequisites
9. Residency requirements
10. Faculty preparation
11. Grade point averages
12. Academic calendars
13. Validity of nontraditional credits

Mohr and Sears⁶⁹ further believed that administrators' lack of solid support of articulation and transfer of credits were evident by their following actions:

1. Failure to fund offices for articulation
2. Neglect to staff special counseling positions
3. Resistance to developing and publishing transfer information understandable to students
4. Failure to encourage personal interaction between professionals from the sending institutions
5. Placement of little emphasis on establishing clearly defined standards for recognizing nontraditional studies
6. Failure to support or establish articulation conferences

Whitmore recognized the problem by saying: "It was necessary to forget about protecting our territory. We had to act in close harmony with others...to get the job done."⁷⁰

One of the major developments aiding the articulation process was the development of two-plus-two programs. This equation stated that two years of study at a two-year college plus two additional years of study at a four-year college equaled a bachelor's degree. Allan⁷¹ was a strong promoter of the two-plus-two concept. She advocated the recognition of associate degrees by all senior institutions of higher education and suggested that policies should be developed to reflect a commitment to provide two-year college graduates who have earned an associate degree the opportunity to pursue a baccalaureate degree program.

A rapid increase was predicted in the acceptance of the associate degree for admission by four-year colleges and universities throughout the country to a point where it eventually would be commonplace.

Maxwell listed the following recommendations relating to four-year colleges' acceptance of business courses taught by two-year institutions:

1. Community college business courses identical or parallel to a lower-division university course required for a baccalaureate degree in business should be accepted by the university in lieu of a university course for as many units as the university grants for that course.

2. Community college business courses identified by the community college as transferable but not identical or parallel to a lower-division university course required for a baccalaureate degree in business should be accepted by the university for a lower-division elective credit in business.
3. Where a community college identified a business course as nontransferable, the university should consider it for transfer as a lower-division elective course in business and reject it only if it contained portions of sub-collegiate content or material.
4. The university should ordinarily be willing to determine if a community college business course parallels one of its own business courses by examination of the community college catalog, or by studying copies of examinations and holding discussions with community college instructor(s).
5. The university should have authority to prescribe requirements for baccalaureate degrees in business including lower-division requirements. This includes specifying required business courses, numbers of business credits required, and numbers of elective business and nonbusiness credits permitted for transfer and native students alike.
6. Students transferring from community colleges to universities should be permitted to:
 - a. Transfer community college business courses in which they received a "D" grade in the same manner with which the university handles "D's" earned by its native students
 - b. Take advanced placement examinations or otherwise challenge for credit any business course in the same manner as the university permits its natives

- c. Return to the community college to take lower-division business courses for fulfillment of a major course even though they had, at the time of transfer, already completed the total number of transfer credits which the university permits to count toward a baccalaureate degree
- 7. Both transfer and native students should have identical grade point average requirements for entry into the university business program and for granting the baccalaureate degree in business.
- 8. Have the same rights and be considered in the same spirit as the native student once he/she is accepted by the university.⁷²

Forman⁷³ thought the two-plus-two concept in education sounded simple enough but rarely was it as unencumbered as the equation appeared. Problems again centered around the "plus" and the articulation or lack of it between the two-year and four-year institutions. He believed that mistrust of others' motives, empire building, head counting, financial pressures, and "it wasn't invented here therefore it cannot be good" syndrome to have been among the more prevalent reasons for a faulty two-plus-two equaled a bachelor's degree equation.

In order for this type of articulation to develop, it was necessary for two- and four-year institutions to become completely aware of each other's programs, plans, and problems. To assure this open communication, periodic meetings should have been held and visits should have been made to each other's colleges, as well as continued informal contacts.

Again, the necessity of sound articulation procedures developing through voluntary agreements became evident. Mohr and Sears⁷⁴ saw that carefully written articulation agreements between colleges should have resulted in an educational partnership with the following advantages: (1) expand student mobility between two- and four-year colleges, (2) aid in student recruitment and admissions, (3) reduce attrition, (4) encourage faculty and staff exchanges, and (5) discourage unnecessary program duplication.

Gething⁷⁵ described three possible articulation models. One approach would have placed all decision making power with the senior institution, giving it complete discretion as to whether to accept credits from two-year institutions, how many credits to accept, and what senior college requirements would be satisfied by credits earned at the two-year college.

The second model used quite the opposite approach. Here the two-year college would have certified certain of its courses as being of transfer quality, and that these courses fulfilled specific general education requirements at the four-year college. If the general education requirements were certified, the senior institution could not have required additional general education course work.

The third model involved a compromise agreement by which both two- and four-year institutions made a joint

evaluation of lower-level courses and/or programs. A variation of this approach provided for the senior college to make the initial evaluation decision, which could have been appealed to a joint committee for a final decision.

Early articulation agreements between two-year institutions and four-year colleges were developed. The California Executive Order #167 has been in effect since 1974. It states that:

Courses (from) a regionally accredited college or university . . . designated . . . for baccalaureate credit by the institution shall be accepted by any campus of the California State University and Colleges for credit toward its baccalaureate degrees. Appropriate campus authorities shall determine degree program. Credit not otherwise applied shall be accepted as elective credit . . . courses presented by transfer applicants which were completed at unaccepted institutions or (non transfer) courses . . . shall be evaluated and their acceptability and applicability shall be determined by appropriate campus authorities.⁷⁶

Mohr and Sears⁷⁷ described a successful model for articulation and the development of two-plus-two program agreements between Norfolk State University and Tidewater Community College. This 1978 Tidewater Duplication Study charged the two institutions to develop two-plus-two transfer programs in Office Administration/Secretarial Science, Accounting, and Business Education. Outcomes of the first meeting, in 1979, led to eight articulation agreements on curricula and an atmosphere characterized by friendly and respectful deliberations.

These agreements included the evaluation of non-traditional credits, desires to comply with state and institutional policies, and an agreement on admission and financial aid procedures. They incorporated the idea that two-plus-two efforts should not lead to the lowering of academic standards or modifying curriculum goals for either institution, but that new and different ways for treating credits, degrees, students, records, and an assortment of other concerns needed to be considered as the way of thinking. It was decided that the chief concern would be that students receive college-level preparation in their particular field of study and be able to compete successfully if transfer occurred between the two types of institutions.

Allan⁷⁸ described a series of articulation workshops held in the State of Washington under the auspices of the Washington Council of Local Administrators. These meetings identified curriculum articulation as a high priority need. This need indicated that systematic and comparable information regarding courses and programs should have been available to students in programs requiring transfer. A need was also identified to develop methods whereby institutions and administrators, representing the several institutions within a region, could develop unified approaches to problems of articulation.

Canup⁷⁹ recommended formal letters between the educational systems involved. These letters of agreement

should have been based upon formal meetings between faculty members of complementary curricula.

Krzystofik and Bridgman⁸⁰ found that the American Association of Collegiate Schools of Business (AACSB) also influenced transfer policies. The AACSB established standards with suggested curriculum guidelines for the first two years (lower level) as well as for the last two years (upper level) of college. A broad educational background was recommended in the first two years of college. Examples of business courses suggested to be offered at the lower level were principles of accounting, principles of economics, business law, statistics, and introduction to business. Courses recommended to be offered at the upper level included principles of finance, principles of management, principles of marketing, and accounting courses above the principles course.

It was noted that a number of accounting and marketing courses suggested as upper-level subjects were offered at two-year schools. While these courses were offered for terminal programs at the two-year schools, and acceptable at many four-year schools, the differences represented areas of friction between the two-year institutions and four-year AACSB schools.

In the critical areas of transferability of credit and curriculum, the statement on standards relating to junior and community colleges concluded as follows:

1. A professional curriculum in business administration must be based upon a

solid foundation in the liberal arts and sciences disciplines, with professional courses concentrated largely at the upper level.

2. Validation procedures are necessary and in the best interest of all students.
3. Both four-year and two-year institutions are encouraged to enter regional articulation agreements, and to engage in other cooperative activities which will facilitate the transferring students' progress toward the attainment of a baccalaureate degree.
4. All possible means should be sought to achieve and maintain full and open communication between two-year and four-year institutions on this and all other matters of mutual concern. Students in both vocational-technical track and baccalaureate track programs in junior and community colleges should be provided with careful, individualized academic and career advisement so as to help assure that their particular educational objectives may be best achieved.⁸¹

The standards required extraordinary validation procedures in cases where transfer of credit was being sought for a lower-division course to meet an upper-division requirement. In those instances, the standards suggested the use of College Level Examination Program (CLEP) tests, written examinations prepared by the institution, or successful completion of advanced courses in the subject field for which the course was a foundation. Among post-secondary educational institutions the latter procedure was the most commonly accepted evidence of the quality of the course being transferred.

In granting credit to transfer students, the baccalaureate degree-granting institution maintained policies to assure that the overall educational experience of the transferring student was comparable to that of the student taking all of his or her work at an accredited school.

Krzystofik and Bridgman's⁸² study also reported that four-year accredited colleges followed AACSB standards closely so that business core courses and accounting courses above the principles level were either not transferable or were transferable by examination only. However, a number of four-year AACSB members (although not accredited by AACSB) accepted business core or accounting courses above the principles level. Furthermore, a large number of the nonaccredited schools were willing to grant transfer credit for the upper-level courses by examination or validation.

Two-year schools indicated a number of business core and accounting courses as transferable. Advanced accounting and auditing were two courses that the respondents reported as nontransferable.

The same research found 80 percent of the schools included in the study indicated that it was unnecessary to earn an associate degree for eligibility to transfer. The specific transferability of selected business core and accounting courses showed no definite pattern. Table 6 identifies the courses found to be transferable, nontransferable, or transferable by examination.

Table 6. Percentages of Colleges Who Evaluated Business Core and Accounting Courses as Being Transferable, Nontransferable, or Transferable by Examination

COURSE	Percent of Four-Year Colleges											
	Percent of Two-Year Colleges				AACSB Accredited				Non AACSB Accredited			
	T	NT	TE	NR	T	NT	TE	NR	T	NT	TE	NR
<u>Accounting</u>												
Actg. Principles	94%	6%	90%	..	10%	..	95%	..	5%	..
Intermediate Actg.	21	51	21	31	5	33	57	5	35	30	35	..
Management Actg.	11	36	17	36	29	19	42	10	65	10	25	..
Cost Actg.	11	32	21	36	..	52	38	10	35	25	40	..
Advanced Actg.	..	26	11	63	..	61	29	10	15	55	30	..
Auditing	..	43	5	52	..	61	29	10	15	55	30	..
Taxation	22	43	5	32	..	61	34	5	20	45	35	..
<u>Business Core</u>												
Business Law	52	11	11	26	33	23	29	15	85	..	15	..
Principles of Mgt.	36	21	11	32	..	57	28	15	45	35	20	..
Principles of Mktg.	26	26	12	36	..	57	28	15	45	35	20	..
Finance	17	21	11	51	..	52	33	15	35	40	25	..

Source: Anthony T. Krzystofik and Spencer C. Bridgman, "A Need for Closer Integration of Two- and Four-Year Business Programs," Collegiate News & Views 34 (Spring 1981): 4.

T = Transferable
 NT = Nontransferable
 TE = Transferable by examination
 NR = No response

An attempt was also made to determine the extent of the general and liberal education requirements for the associate degree to transfer as a unit. Krzystofik and Bridgman⁸³ found that two-year schools believed the general and liberal education required for the associate degree fulfilled the broad base suggested by the AACSB standards. Four-year schools indicated a strong negative response. The number of general education credits required at the two-year level indicated that the minimum hours varied considerably but clustered around the thirty-hour level.

A formalized articulation contract found strong support in the State of Michigan. In 1972 the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) agreement was signed. All but seven of the thirty-six, two-year, and seventeen of the forty-six, four-year, Michigan colleges listed in The College Handbook⁸⁴ were eventual signatory institutions. The following were signatory institutions:

- Two-Year Colleges--
1. Alpena Community College
 2. Bay de Noc Community College
 3. Delta College
 4. Glen Oaks Community College
 5. Gogebic Community College
 6. Grand Rapids Junior College
 7. Highland Park Community College
 8. Jackson Community College
 9. Jordan College

10. Kellogg Community College
11. Kirtland Community College
12. Lake Michigan College
13. Lansing Community College
14. Michigan Christian College
15. Mid-Michigan Community College
16. Monroe County Community College
17. Montcalm Community College
18. C. S. Mott Community College
19. Muskegon Community College
20. North Central Michigan College
21. Northwestern Michigan College
22. Oakland Community College
23. St. Clair County Community College
24. Schoolcraft College
25. Southwestern Michigan College
26. Suomi College
27. Washtenaw Community College
28. Wayne County Community College
29. West Shore Community College

Four-Year Colleges-1. Adrian College

2. Albion College
3. Alma College
4. Aquinas College
5. Calvin College
6. Central Michigan University
7. Cleary College

8. Detroit College of Business
9. Eastern Michigan University
10. Ferris State College
11. General Motors Institute
12. Grand Valley State College
13. Hope College
14. Kalamazoo College
15. Lake Superior State College
16. Lawrence Institute of Technology
17. Madonna College
18. Michigan State University
19. Michigan Technological University
20. Nazareth College
21. Northern Michigan University
22. Northwood Institute
23. Oakland University
24. Olivet College
25. Saginaw Valley State College
26. Shaw College
27. Siena Heights College
28. Spring Arbor College
29. Western Michigan University⁸⁵

The following were nonsignatory institutions:

- Two-Year Colleges--
1. Baker Junior College of Business
 2. Davenport College of Business
 3. Henry Ford Community College
 4. Kalamazoo Valley Community College

5. Lewis College of Business
6. Macomb Community College
7. Muskegon Business College

Four-Year Colleges-1. Andrews University

2. Center for Creative Studies: College of Art & Design
3. Concordia College
4. Grace Bible College
5. Grand Rapids Baptist College & Seminary
6. Great Lakes Bible College
7. Hillsdale College
8. Kendall School of Design
9. Marygrove College
10. Mercy College of Detroit
11. Reformed Bible College
12. Sacred Heart Seminary College
13. Saint Mary's College
14. University of Detroit
15. University of Michigan
16. Wayne State University
17. William Tyndale College

Essentially the agreement ensured that a student who completed an Associate of Arts (A.A.) or Associate of Science (A.S.) degree at a signatory public community college would have satisfied the general education or core two-year requirements of the signatory four-year colleges.

Thus, a student who received an A.A. or A.S. degree from a signatory Michigan community college would not be required to pursue further general education requirements at any signatory four-year college or university.

The Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) agreement included the following ten specific provisions:

1. Basic two-year requirements which were to be included in the Associate of Arts and Associate of Science degree were as follows:
 - a. English Composition (six semester hours or nine quarter hours).
 - b. Natural Science (eight semester hours or twelve quarter hours). At least one of the natural sciences was to be a laboratory course. Mathematics could be included in the natural science category. Courses were to be taken in more than one academic discipline.
 - c. Social Science (eight semester hours or twelve quarter hours). Courses were to be taken in more than one academic discipline.
 - d. Humanities (eight semester hours or twelve quarter hours). Courses were to be taken in more than one academic discipline.
2. The inclusion of specific courses within a given category were to have been determined by the community colleges.
3. Courses which were not transferable such as those of a technical, vocational, or developmental nature were not to be included in the basic requirements at the community colleges.
4. The four-year colleges were not to have required additional basic two-year

requirements regardless of their individual course evaluations if the transfer student had received the A.A. or A.S. degree.

5. A student who had completed the basic two-year requirements but not the A.A. or A.S. degree requirements of the community college would not be required to pursue basic two-year requirement courses at the four-year college.
6. Each four-year college would determine the equivalence and applicability of basic two-year courses in meeting other graduation requirements.
7. Transfer students who did not complete the basic two-year requirements of the community college would meet the requirements of the four-year college as determined by an individual evaluation of his/her previous work.
8. Foreign language requirements for the individual baccalaureate degree programs would be the prerogative of the four-year colleges.
9. Any limitations, provisos, or exceptions listed on the signed agreement would be honored.
10. A community college student must have been admissible to a participating four-year college in order to benefit from the MACRAO agreement.⁸⁶

Ferris State College is a charter member of the MACRAO agreement, and it has provided each transfer student an opportunity to work toward a baccalaureate degree with no or little loss of credit, regardless of the prior area of concentration. To accomplish this purpose, provision is made in the Ferris School Bulletin for full acceptance of the following associate degrees:

1. Any associate degree from a regionally accredited two-year institution toward

specified baccalaureate degrees in the School of Business

2. Most associate degrees in vocational, technical, and health-related areas toward a degree in teacher education
3. An associate degree in any one of several other areas toward a baccalaureate degree in the same or in a related area⁸⁷

Special two-year transfer options (two-plus-two programs) were developed in the School of Business to allow transfer credit for two-year associate degree programs completed at other colleges or within other divisions of Ferris State College.

The School Bulletin⁸⁸ shows these options available to those students desiring to major in accounting, computer information systems, management (business administration, business economics, finance, international business, quantitative business, management, personnel management/industrial relations, production management, small business management, insurance) advertising, marketing, marketing-retail option, marketing-sales option, and office administration. (See Appendix B, "Transfer Curricula")

The course requirements for the third and fourth years are determined individually for each student in conference with his/her advisor and consultation with the department head.

The School Bulletin⁸⁹ also provides that students having completed such associate degree programs are normally able to complete the requirements for the Bachelor of

Science degree in Business in another two academic years of study, with the exception of majors leading to a Bachelor of Science degree in Accounting or Public Relations. A maximum of one hundred quarter hours of credit for academic work completed at two-year colleges is allowed to apply toward a baccalaureate degree at Ferris. If the associate degree fails, however, to include School of Business baccalaureate requirements in English, mathematics, economics, psychology, sociology, and speech, the transfer student is required to complete additional course work. Program requirements are met with consideration being given to academic work transferred with the following sequence being observed as guidelines: (1) program major and related requirements, (2) business core requirements, (3) general studies requirements, and (4) electives.

The School Bulletin⁹⁰ further notes that, for students who have not yet completed an associate degree, credits earned at a regionally accredited college are evaluated on a course-by-course basis. Grades transferred from another college or colleges are not included in the computation of the Ferris cumulative grade point average.

Credits applicable toward the curriculum for which the student is applying, which were earned at such an accredited institution, are fully accepted at the time of admission. Students with a cumulative grade point average of 2.00 or higher from regionally accredited institutions receive credit for all subjects passed, although grades

of less than "C" earned in business courses are not accepted for transfer credit.

Transfer students whose cumulative averages are less than 2.00 from regionally accredited institutions receive credit for only those passing grades of less than "C" that can be averaged with grades of higher than "C" to equal a 2.00 average. A maximum of one-half of the total quarter hours required for completion of a baccalaureate degree are accepted from a regionally accredited two-year college.

Credits applicable to the curriculum for which the student is applying, which were earned at institutions not regionally accredited, are conditionally accepted at the time of admission. Final acceptance of such credit is granted when the student earns a minimum of forty-five quarter hours of credit at Ferris with a grade point average of at least 2.00.

Students who transfer from nonaccredited colleges must complete a minimum of one hundred quarter hours of credit at Ferris or at another regionally accredited four-year college (or colleges) with a grade point average of at least a 2.00 in order to be considered for the awarding of a bachelor's degree by Ferris State College. The final forty-five quarter hours preceding graduation must be earned from courses offered by Ferris with the following exceptions:

1. Six percent of the total applicable credits necessary for graduation may be earned at another college(s) following a student's last attendance at Ferris provided all other requirements have been completed.

:

s

l

a

t.

re

as

pro

2. The final work to be completed elsewhere must be completed at an accredited institution and shall be approved in advance by the Dean of the School granting the degree or certificate.
3. Variations of the requirements stated in this section, consonant with the spirit of the policy, may be recommended by the Dean of the School granting the degree or certificate.⁹¹

While it appeared that articulation between two-year colleges and the School of Business at Ferris State College presented no problem, certainly further research is recommended to contrast the attrition and progress ratios of transfer and native students.

Summary

This chapter noted the unique background of Ferris State College and its early establishing of two-plus-two programs. Several of the related studies were cited that researched the two-year colleges as well as studies dealing specifically with transfer students.

Knoell and Medsker's study showed many two-year college students to have been underachievers, late deciders about college, immature, unmotivated, and financially distressed.

Studies by Cross, and Astin, Panos and Crenger reported differences in both occupational and educational aspirations between native and transfer students. A greater proportion of native students aspired to managerial and

professional occupations and education beyond the bachelor degree than did transfer students.

Many studies of academic performance were cited. No single accurate indicator, however, was found for predicting student success. The various writers did conclude, though, that generally the academic ability of native students was somewhat greater than that of transfer students.

The analyses of Goodarznia, Knoell and Medsker, and Bulkley found that transfer students performed better at the two-year institution than they did immediately after transfer. Many times, however, their grades improved as they continued at the four-year college. Slark and Bateman as well as Sutherland found students transferring to Schools of Business also experienced transfer shock.

Krzystofik and Bridgman's study involving the influence of the American Association of Collegiate Schools of Business (AACSB) was cited. Courses recommended by the AACSB to be offered at the lower level and upper level were listed, and the statement on standards relating to junior and community colleges was included.

The Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) agreement was reviewed, including its provisions as well as a listing of the signatory and nonsignatory institutions.

The chapter concluded by describing policies and options of the two-plus-two curricula available in the School of Business at Ferris State College.

Chapter Notes

¹Collins W. Burnett, The Community and Junior College, cited by Carolyn R. Downey, p. 8.

²Gerald W. Maxwell, "Coordinating the Two-year Postsecondary School and Four-year Colleges and University Business Programs," NBEA Yearbook, 15 (1977): pp. 135-154, as quoted in Downey, p. 8.

³W. C. Eells, Present Status of Junior College Terminal Education, cited by Eldon J. Brue, Harold B. Engen, and E. James Maxey, ACT Research Report: How Do Community College Transfer and Occupational Students Differ? No. 41 (Iowa City: The American College Testing Program, [1971]), p. 1.

⁴Brue, Engen, and Maxey, p. 1.

⁵Ibid.

⁶L. L. Medsker, The Junior College: Progress and Prospect, cited by Brue, Engen, and Maxey, p. 1.

⁷B. R. Clark, The Open Door College: A Case Study, cited by Brue, Engen, and Maxey, p. 1.

⁸J. E. Roueche, "Gaps and Overlaps in Institutional Research," Junior College Journal, p. 21, as quoted in Brue, Engen, and Maxey, pp. 1-2.

⁹Sandeen and Goodale, p. 5.

¹⁰Ibid., pp. 8-9

¹¹Ibid., p. 5.

¹²Ibid., p. 8.

¹³Ibid., p. 7.

¹⁴Ibid., p. 6.

¹⁵Ibid., p. 8.

¹⁶Ibid., p. 9.

¹⁷Ibid., p. 6.

¹⁸Ibid., p. 10.

¹⁹Ibid., pp. 7-8.

²⁰Ibid., p. 7.

- ²¹Ibid., p. 6.
- ²²Downey, p. 17.
- ²³Slark and Bateman, p. 4.
- ²⁴Sandeen and Goodale, p. 6.
- ²⁵Downey, p. 17.
- ²⁶Gene Altman, "An Analysis of Transfer Credits Accepted and Length of Time Taken to Complete Bachelor's Degrees by Selected Transfer Business Management Students," in Dissertation Abstracts International, ed. Patricia M. Colling (Ann Arbor: University Microfilms International, 1981), 42: p. 2518A.
- ²⁷John Thomas Fleishans III, Junior/Community College Transfer Students' Success in a Collegiate School of Business Administration (Tempe, AZ.: By the Author, Arizona State University, 1973), p. 61.
- ²⁸Knoell and Medsker, pp. 91, 93.
- ²⁹Anthony T. Krzystofik and Spencer C. Bridgman, "A Need for Closer Integration of Two- and Four-Year Business Programs," Collegiate News & Views 34 (Spring 1981): 4.
- ³⁰Warren W. Willingham, "Transfer Students and the Public Interest," College Transfer, as quoted in Sandeen and Goodale, pp. 3-4.
- ³¹Knoell and Medsker, p. 3.
- ³²Marcus Allred and Julian C. Wingfield Jr., Follow-Up Study of 1979-80 Students: North Carolina Community College System (Raleigh: North Carolina State Department of Community Colleges, [1982]), pp. Resume, 2.
- ³³L. A. Munday, "A Comparison of Junior College Students in Transfer and Terminal Curricula," Journal of College Student Personnel, as quoted in Brue, Engen, and Maxey, p. 2.
- ³⁴Knoell and Medsker, as quoted in Sandeen and Goodale, p. 21.
- ³⁵Patricia K. Cross, The Junior College Student: A Research Description, cited by Sandeen and Goodale, p. 20.

³⁶A. W. Astin, R. J. Panos and J. A. Crenger, "National Norms for Entering College Freshmen, Fall, 1966," ACE Research Reports, cited by Sandeen and Goodale, p. 19.

³⁷Cross, cited by Sandeen and Goodale, pp. 27-28.

³⁸W. W. Cooley and S. J. Becker, "The Junior College Student," Personnel and Guidance Journal, cited by Sandeen and Goodale, p. 16.

³⁹Knoell and Medsker, pp. 29, 34.

⁴⁰Ibid., pp. 34, 92.

⁴¹Ibid., pp. 20-21, 41, 98.

⁴²Homayoun Goodarzania, "A Comparative Study of Academic Performance Between Northern Virginia Community College Transfer Students and Native Students at the George Mason University," in Dissertation Abstracts International, ed. Patricia M. Colling (Ann Arbor: University Microfilms International, 1983), 43: p. 3519A.

⁴³Knoell and Medsker, pp. 27, 34.

⁴⁴Sandeen and Goodale, p. 18.

⁴⁵Kent Vernon Bulkley, "A Study of the Academic Achievement and Graduation Rate of Transfer Students to Michigan State University from Two-Year and Four-Year Institutions," in Dissertation Abstracts International, ed. Patricia M. Colling (Ann Arbor: University Microfilms International, 1975), 35: p. 5711A.

⁴⁶Albert Leon Dragon, "An Investigation of the Academic Success of Community and Junior College Transfers Entering a Four-Year College of Business," in Dissertation Abstracts International, ed. Patricia M. Colling (Ann Arbor: University Microfilms International, 1980), 41: p. 511A.

⁴⁷Robert Cope and William Hannah, Revolving Doors: The Causes and Consequences of Dropping Out, Stopping Out, and Transferring (New York: John Wiley & Sons, 1975), pp. viii, 59.

⁴⁸J. W. Trent and J. H. Ruyle, "Variations, Flow, and Patterns of College Attendance: The High School Graduate Study," College and University, cited by Sandeen and Goodale, p. 19.

⁴⁹Knoell and Medsker, p. 19.

⁵⁰ Ibid., pp. 34-35.

⁵¹ Ibid.

⁵² Ibid., p. 38.

⁵³ Ibid., pp. 25-28.

⁵⁴ Ibid., pp. 37-38.

⁵⁵ Ibid., p. 21.

⁵⁶ Ibid.

⁵⁷ Hawaii University, University of Hawaii at Manoa Graduates with Community College Background. Community Colleges, Academic Year 1979-80 (Honolulu: Office of Institutional Research and Analysis, 1981), p. 1.

⁵⁸ Lee William Sutherland, The Difference Between Transfer Students' Entering GPA and Their GPA After One Semester in the College of Business Administration at Suffolk University (Boston: By the Author, Suffolk University, 1978), p. i.

⁵⁹ Julie Slark and Harold Bateman, Transfer Students' Academic Progress at the University of California and the California State Universities and Colleges (Santa Ana: Santa Ana College, [1981]), p. i.

⁶⁰ Slark and Bateman, [1983], p. i.

⁶¹ Fleishans, pp. iii-iv.

⁶² Duncan MacGregor Sargent, "A Comparative Study of the Pre-Grade-Flation, Post-Grade-Flation Academic Success of Michigan Community College Transfer Students to Michigan State University in 1965-1967 and 1971-1973," in Dissertation Abstracts International, ed. Patricia M. Colling (Ann Arbor: University Microfilms International, 1978), 38: pp. 5872A-5873A.

⁶³ Mary Ann Desmond, "Assessment of a Community College's Transfer Preparation for Selected Majors, Considering Factors of Student Eligibility, Opinion, and Grade Point Differentials," in Dissertation Abstracts International, ed. Patricia M. Colling (Ann Arbor: University Microfilms International, 1984), 44: p. 3584A.

⁶⁴ Dragon, p. 511A.

⁶⁵William L. Graft, "Elementary and Intermediate Accounting Achievement of Native and Transfer Students in Selected Colleges and Universities in Pennsylvania," Alpha Epsilon Research 20 (Spring 1980): 1-3.

⁶⁶Nelson Everett Pion, "An Evaluation of the Performance of Marketing and Management Transfer Students at the University of Massachusetts," in Dissertation Abstracts International, ed. Patricia M. Colling (Ann Arbor: University Microfilms International, 1983), 44: pp. 1002A-1003A.

⁶⁷Altman, p. 2518A.

⁶⁸Paul B. Mohr Sr. and James C. Sears, A Successful Model for Articulation and the Development of Two-Plus-Two Program Agreements Between Norfolk State University, A Predominantly Black Four-Year Public Institution, and Tidewater Community College, A Predominantly White Multi-Campus Two-Year Public Community College (Durham, ND.: North Carolina Central University, [1979]), p. 6.

⁶⁹Ibid.

⁷⁰Richard Whitmore, Remarks regarding Kellogg Community College's Articulation Effort, as quoted in David S. Bushnell, "Closing the Gap and Eliminating the Overlap," American Vocational Journal (April 1978): as quoted in Downey, p. 13.

⁷¹Beverly Allan, Two-Year/Four Year College Articulation with Comments on State Level Articulation Efforts in Virginia, as quoted in Downey, p. 10.

⁷²Maxwell, as quoted in Downey, pp. 15, 18.

⁷³James D. Forman, "2 + 2 = ? Articulation in Technical Education," Technical Education Yearbook, p. 10, as quoted in Downey, pp. 10, 13.

⁷⁴Mohr and Sears, p. 2.

⁷⁵Judith R. Gething, Articulation at the University of Hawaii in Academic Dilemma, cited by Downey, p. 11.

⁷⁶Office of the Chancellor, California State University and Colleges, Transfer of Credit, Executive Order #167, as quoted in Downey, p. 12.

⁷⁷Mohr and Sears, pp. 1, 8-9.

⁷⁸Allan, cited by Downey, p. 12.

⁷⁹Claude R. Canup, Jr., Articulation with Secondary Schools, cited by Downey, p. 11.

⁸⁰Krzystofik and Bridgman, pp. 1, 4.

⁸¹Ibid., p. 2.

⁸²Ibid., p. 4.

⁸³Ibid.

⁸⁴College Entrance Examination Board, pp. 721-7.

⁸⁵Michigan Association of College Registrars and Admissions Officers, The MACRAO Articulation Agreement (Dowagiac: Michigan Association of Collegiate Registrars and Admissions Officers, 1982), p. 6.

⁸⁶Ibid., p. 3.

⁸⁷Ferris State College, School Bulletin (Big Rapids, MI.: Ferris State College, 1984), 57: p. 27.

⁸⁸Ibid., pp. 91, 95.

⁸⁹Ibid., pp. 94, 95.

⁹⁰Ibid., pp. 27-28, 94.

⁹¹Ibid., p. 91.

CHAPTER III

METHODS AND PROCEDURES

Introduction

The primary question answered by this study was how transfer marketing students compared academically with native marketing students at Ferris State College from 1979-1986. The many aspects of this question have been defined and reviewed in Chapters I and II. This chapter will discuss the design of the study, population, sources of data, as well as the methods used to collect, process and protect the data. The research questions are listed, followed by each accompanying null hypothesis. Finally, a detailed description is made of the methods used in analyzing the data.

Design

The academic accomplishments of transfer and native students were the dependent variables. These dependent variables were graduation percentages, academic probation percentages, grade point averages, course withdrawals, and attrition percentages. The independent variable was student status, which was either transfer or native.

Data for this study were gathered from events which had already occurred. Thus the researcher started with

observations derived from historical data. The independent variables were then studied for their possible relation to, and effect on, the dependent variables.

Population

The population for this study included the following two groups of students who were classified as juniors in a baccalaureate marketing curriculum in the School of Business at Ferris State College at the beginning of the Fall Quarters of 1981, 1982, or 1983:

1. Transfer students who entered a regionally accredited college as freshmen, completed an associate degree, and transferred as juniors into a two-plus-two marketing program in the School of Business at Ferris State College in the Fall Quarters of 1981, 1982, or 1983.

2. Native students who entered Ferris State College as freshmen and were juniors in a baccalaureate marketing curriculum in the School of Business at the beginning of the Fall Quarters of 1981, 1982, or 1983.

An analysis of the population by numbers, status, and gender appears in Table 7.

Table 7. Research Population of Students Enrolled in a Baccalaureate Marketing Curriculum at Ferris State College

Date of Junior Classification	<u>Status</u>		<u>Native</u>		Total
	<u>Transfer</u>				
	Male	Female	Male	Female	
Fall 1981	15	12	23	14	64
Fall 1982	17	10	10	14	51
Fall 1983	<u>9</u>	<u>6</u>	<u>15</u>	<u>10</u>	<u>40</u>
Total	41	28	48	38	155

Collection of Data

Data used in this study were obtained from the following four major sources:

1. Fall 1979, 1980, 1981, 1982, and 1983 enrollment lists of baccalaureate marketing students at Ferris State College. (Fall 1979 and 1980 for native students--Fall 1981, 1982, and 1983 for both native and transfer students)

2. Transcripts from two-year colleges for students who transferred into a baccalaureate marketing curriculum at Ferris State College in Fall 1981, 1982, and 1983

3. Academic records of baccalaureate marketing students for the time period of their enrollment at Ferris State College

4. Withdrawal records of baccalaureate marketing students at Ferris State College for time period Fall 1981-Spring 1986

All data were collected in strict compliance with the Family Educational Rights and Privacy Act, 1974. (See Appendix C, "The Family Educational Rights and Privacy Act of 1974 as Amended") The Ferris State College Registrar gave official permission to use data found in Ferris State College student records. (See Appendix D, "Ferris State College Approval")

The University Committee on Research Involving Human Subjects at Michigan State University gave the researcher permission to conduct the study in accordance with the Family Educational Rights and Privacy Act. (See Appendix E, "Michigan State University Approval")

The potential risks and benefits inherent in the study to the subjects, the two-year college involved, and to Ferris State College were recognized. Preventive measures were taken to assure that all information used in this study was gathered, recorded, analyzed, and summarized in such a manner that the subjects and/or the matching of two-year colleges or Ferris State College with each subject was not identified directly or through identifiers linked to the subjects or college. (See Appendix F, "Risk Benefit Ratio Analysis")

Procedures

The students to be included in the study were determined from Fall Quarter 1979, 1980, 1981, 1982, and 1983 enrollment lists available at the Office of the Dean in the School of Business. From these enrollment data a list of subjects was produced, showing the names and student numbers of those enrolled in a baccalaureate marketing curriculum. The subject lists were carried by the researcher to the Office of the Registrar. Academic records of all students included on the subject lists were furnished for the study by employees in the Office of the Registrar. Students were classified as transfer, native, and by gender. Codes indicating these classifications were assigned to each student with all prior identification removed, including names and Ferris State College student numbers.

The population was then studied by investigating the following: (1) all transfer marketing students who, at the time of their transfer into the upper division were classified as juniors, and (2) all native marketing students classified as juniors. These two groupings were further studied according to the following four segments:

1. Male transfer marketing students
2. Female transfer marketing students
3. Male native marketing students
4. Female native marketing students

The cumulative grade point averages for the first two years of college were compared. Grades earned by each

group in the four lower-level marketing courses were also compared. Grade point averages of transfer students were determined from the college transcripts issued by the regionally accredited colleges. These averages were compared with the grade point averages of the native students as determined from Ferris State College student academic records.

The academic progress of the transfer and native students was carefully followed during their junior and senior years of pursuing a baccalaureate degree in marketing at Ferris State College.

Cumulative grade point averages of each group's lower-level work were compared with the grade point averages for the first quarter of their junior year. These results of the transfer students' grade point average comparisons were then compared with the results of the native students' comparisons. Data for native student comparisons were taken from Ferris State College student records and from other regionally accredited college transcripts as well as Ferris State College records for the transfer students.

Cumulative grade point averages were studied on a quarterly basis for each group in their upper-division studies. This information was accumulated from Ferris State College student records. Grade point averages of transfer students for their last two years were compared with those of native students for their final two years.

Grades earned by students in the five selected upper-level "capstone" marketing courses were used in measuring applications of prior learning experiences, including principles covered in the four lower-level marketing courses. Grades earned by transfer students in the five upper-level marketing courses were compared with those earned by native students. These data were also studied by comparing grades earned in the upper-level marketing courses by students who took lower-level marketing courses at other regionally accredited colleges with those of students who took lower-level marketing courses at Ferris State College. Data for these analyses were taken from the other regionally accredited college transcripts and from Ferris State College student academic records.

Detailed information concerning course withdrawals was collected. Percentages of the numbers of courses withdrawn by transfer and native students were compared. Information for this analysis was extracted from Ferris State College student academic records.

Student attrition in the Marketing Department was studied and two types of comparisons made between transfer and native students. The first comparison was made of attrition percentages, data for which was determined from student academic record information. The second comparison considered reasons for attrition, information for which was taken from exit records as well as from student academic record information.

Students who were not performing satisfactorily were placed on academic probation at Ferris State College. Table 8 lists the guidelines used for determining academic probation. According to Student Handbook¹ provisions, when a student's cumulative grade point average fell, for the first time, within the stated range for the number of quarter hours earned, the student was placed on probation. However, a student who earned less than a 2.00 average for two consecutive quarters was placed on probation regardless of the student's cumulative grade point average.

Table 8. Academic Probation Policy at Ferris State College
Based on Quarter Hours Earned and Grade Point
Average Range for Placement on Probation

Ferris Quarter Hours of Credit Earned	Ferris Cumulative Grade Point Average Range for Placement on Academic Probation*
1st Ferris Qtr.	0.00--1.99
1--30.9	1.40--1.99
31--45.9	1.60--1.99
46--75.9	1.70--1.99
76-100.0	1.80--1.99
101-145.9	1.90--1.99
146 & above	1.95--1.99

Source: Ferris State College, Student Handbook
(Big Rapids, MI.: Student Services, 1984), p. 5.

*Any student whose cumulative grade point average falls below the range for the number of hours earned may be denied further admission in the school in which the student is enrolled.

The percentages of students being placed on academic probation were calculated. Transfer student probation percentages were compared with native students' percentages. These data were extracted from student academic records.

Graduation percentages of transfer and native students were also compared. Graduation data were secured from the Office of the Registrar.

Research Questions

In determining how transfer marketing students compared academically with native marketing students at Ferris State College, answers to the following research questions were considered in reaching conclusions to the primary concern of this study:

1. Do grade point averages of college freshman and sophomore transfer marketing students differ from those of native marketing students?

2. Do grade point averages of transfer marketing students differ from those of native marketing students for selected lower-level marketing courses?

3. Do grade point averages of college junior and senior transfer marketing students differ from those of native marketing students?

4. Do students experience transfer shock after transferring to a baccalaureate marketing curriculum at Ferris State College?

5. Do grade point averages of transfer marketing students differ from those of native marketing students for selected upper-level marketing courses?

6. Do grade point averages of students for selected upper-level marketing courses, who took selected lower-level marketing courses at other regionally accredited colleges, differ from those of students who took selected lower-level marketing courses at Ferris State College?

7. Do course withdrawal percentages of transfer marketing students differ from those of native marketing students?

8. Do percentages of attrition of transfer marketing students differ from those of native marketing students?

9. Do percentages of attrition, for selected reasons, of transfer marketing students differ from those of native marketing students?

10. Do academic probation percentages of transfer marketing students differ from those of native marketing students?

11. Do graduation percentages of transfer marketing students differ from those of native marketing students?

12. Do academic accomplishments of male and female transfer marketing students differ from those of male and female native marketing students?

Hypotheses

To answer each of the research questions listed the following twelve null hypotheses were tested:

1. There are no significant differences in cumulative grade point averages between those of transfer marketing students and those of native marketing students during their college freshman and sophomore years.

2. There are no significant differences in grade point averages between those of transfer marketing students and those of native marketing students in four selected lower-level marketing courses.

3. There are no significant differences in cumulative grade point averages between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

4. There are no significant differences in cumulative freshman and sophomore grade point averages and their grade point averages for the first quarter of their junior year between those of transfer marketing students and those of native marketing students.

5. There are no significant differences in grade point averages between those of transfer marketing students and those of native marketing students in five selected upper-level marketing courses.

6. There are no significant differences in grade point averages of students for five selected upper-level

marketing courses, between those of transfer marketing students who had taken four selected lower-level marketing courses at other regionally accredited colleges and those of native marketing students who had taken four selected lower-level marketing courses at Ferris State College.

7. There are no significant differences in percentages of course withdrawals between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

8. There are no significant differences in percentages of attrition between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

9. There are no significant differences in percentages of attrition for selected reasons between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

10. There are no significant differences in percentages of students on academic probation between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

11. There are no significant differences in percentages of graduation from a baccalaureate marketing curriculum

between those of transfer marketing students and those of native marketing students at Ferris State College.

12. There are no significant differences in academic accomplishments between those of male and female transfer marketing students and those of male and female native marketing students at Ferris State College.

Analysis of Data

All transfer marketing students were compared with all native marketing students by each of the following ten criteria:

1. Cumulative grade point average for the freshman and sophomore years of college. (To test null hypotheses 1, 4, and 12 and to answer research questions 1, 4, and 12)

2. Grade point average for selected lower-level marketing courses. (To test null hypotheses 2 and 12 and to answer research questions 2 and 12)

3. Cumulative grade point average for junior and senior years at Ferris State College. (To test null hypotheses 3 and 12 and to answer research questions 3 and 12)

4. Grade point average for the first quarter of the junior year at Ferris State College. (To test null hypotheses 4 and 12 and to answer research questions 4 and 12)

5. Grade point average for selected upper-level marketing courses taken at Ferris State College. (To test

null hypotheses 5, 6, and 12 and to answer research questions 5, 6, and 12)

6. Percentage of course withdrawals by marketing students at Ferris State College. (To test null hypotheses 7 and 12 and to answer research questions 7 and 12)

7. Percentage of attrition of marketing students at Ferris State College. (To test null hypotheses 8 and 12 and to answer research questions 8 and 12)

8. Reasons for attrition of marketing students at Ferris State College. (To test null hypotheses 9 and 12 and to answer research questions 9 and 12)

9. Percentage of marketing students on academic probation at Ferris State College. (To test null hypotheses 10 and 12 and to answer research questions 10 and 12)

10. Graduation percentage of marketing students at Ferris State College. (To test null hypotheses 11 and 12 and to answer research questions 11 and 12)

The statistical methods used for analyzing data in this study were the following: (1) various descriptive procedures including computation of mean grade point averages, standard deviation for grade point averages, percentages of students by various categorizations, and (2) inferential techniques including analysis of variance tests for means, Chi Square tests for equality of proportions, and Chi Square tests for independence.

Data for the various methods used in this study were obtained from transcripts from regionally accredited

colleges for transfer students and from Ferris State College student records for both transfer and native students. The results of the analyses were compared by status and by gender.

Descriptive Procedures

1. Mean Grade Point Averages

The formula used for determining the arithmetic mean was

$$\bar{X} = \frac{\sum X}{n}$$

where \bar{X} = sample mean

$\sum X$ = total of all data

n = number of data

The specific mean obtained prior to testing null hypotheses 1, 2, 3, 4, 5, 6, and 12 were the student's grade point averages. It was determined by the formula

$$\text{GPA} = \frac{\sum \text{HP}}{\sum \text{CH}}$$

where GPA = grade point average

$\sum \text{HP}$ = sum of all honor points

$\sum \text{CH}$ = sum of all credit hours earned.

Table 9 shows the twelve-point scale used in converting alpha grades to numeric equivalents.

Table 9. Alphabetical Grade and Honor Points Allowed Per Credit Hour at Ferris State College

Alpha Grade	Honor Points Per Credit Hour	Alpha Grade	Honor Points Per Credit Hour
A	4.0	C	2.0
A-	3.7	C-	1.7
B+	3.3	D+	1.3
B	3.0	D	1.0
B-	2.7	D-	0.7
C+	2.3	F	0.0

Source: Ferris State College, Student Handbook (Big Rapids, MI.: Student Services, 1984), p. 5.

2. Standard Deviation for Grade Point Averages

The standard deviation for grade point averages was also determined prior to testing null hypotheses 1, 2, 3, 4, 5, 6, and 12. It was determined by the formula

$$\text{Std. Dev.} = \sqrt{\frac{\sum (X - \bar{X})^2}{n - 1}}$$

where Std. Dev. = standard deviation

X = grade point average

\bar{X} = mean grade point average

n = number of grade point averages

3. Percentage of Students by Various Categorizations

Percentages of students by various categorizations were obtained prior to testing null hypotheses 7, 8, 9, 10,

11, and 12. Percentages were calculated for course withdrawals (to test null hypotheses 7, 12), attrition (to test null hypotheses 8, 12), reasons for attrition (to test null hypotheses 9, 12), probation (to test null hypotheses 10, 12), and graduation (to test null hypotheses 11, 12).

The percentages of course withdrawals, attrition, probation, and graduation were determined by the formula

$$P_t = \frac{W_t, X_t, Y_t, \text{ or } Z_t}{n_t} \text{ or } P_N = \frac{W_N, X_N, Y_N, \text{ or } Z_N}{n_N}$$

where P_t = proportion of transfer students who withdrew from courses, attrited, were on academic probation, or graduated

W_t = number of transfer students who withdrew from selected numbers of courses

X_t = number of transfer students who attrited

Y_t = number of transfer students on academic probation for any one quarter

Z_t = number of transfer students who graduated

n_t = total number of transfer students involved in each case

P_N = proportion of native students who withdrew from courses, attrited, were on academic probation, or graduated

W_N = number of native students who withdrew from selected numbers of courses

X_N = number of native students who attrited

Y_N = number of native students on academic probation for any one quarter

Z_N = number of native students who graduated

n_N = total number of native students involved in each case

Data to determine attrition reason percentages were taken from Student Withdrawal Interview Forms and Withdrawal Clearance Forms completed at the time of student withdrawal as well as from student academic records. (See Appendix G, "School of Business Student Withdrawal Interview" and Appendix H, "Withdrawal Clearance Form")

The reasons given by transfer marketing students for withdrawing from Ferris State College were separated from the reasons given by native marketing students for withdrawing from Ferris State College. The percent that each reason represented of the total number of transfer marketing students who withdrew was obtained. The percent that each reason represented of the total number of native marketing students who withdrew was also obtained.

The percent of the total in each case was determined by the formula

$$P_i = \frac{X_i}{n_t} \quad \text{or} \quad P_i = \frac{X_i}{n_N}$$

where P_i = proportion of students who specified reason i

X_i = number of students who specified reason i

n_t = number of transfer students who withdrew

n_N = number of native students who withdrew

Inferential Techniques

1. Analysis of Variance Tests for Means

Null hypotheses 1, 2, 3, 4, 5, 6, and 12 involved comparisons of many grade point averages among transfer and native male and female students.

Smith³ saw the analysis of variance test as a method to give some knowledge in advance if somewhere in the mass of these comparisons there was a likelihood of finding one or more comparisons that might be significant. If the preliminary analysis indicated that significant differences existed somewhere among the possible combinations, the location of such differences could then be investigated.

This was done by obtaining p-values for each transfer, native, male, and female student group. The F ratio value was then calculated and compared with the critical F value to determine if the differences were significant.

In null hypotheses 1, 2, 3, 4, 5, 6, and 12 there were two kinds of variation represented. One was variation within each student group and the other was variation between the means of each group. If variation between groups was much larger than variation within groups, it was concluded that the groups did not have the same true mean. For these reasons the analysis of variance statistical method to test hypotheses for means was used.

The formula used to calculate the F ratio was

$$F = \frac{MSB}{MSW}$$

where F = F ratio

MSB = mean square between groups

MSW = mean square within groups

Smith⁴ stated that the null hypothesis is probably correct if the F ratio is not significantly greater than 1.00. If, however, the F ratio is found to be significantly greater than 1.00 the null hypothesis is probably false.

Daniel's⁵ decision rule is to reject the null hypothesis if the calculated value of the test statistic is equal to or greater than the critical value.

2. Chi Square Tests

The Chi Square test for equality of proportions was used to test null hypotheses 7, 8, 10, 11, and 12. The Chi Square test for independence was used to test null hypotheses 9 and 12. Smith⁶ noted that, in 1900, Karl Pearson developed the Chi Square method for testing hypotheses. It was a technique for determining whether the differences between the theoretical and the observed frequencies in any number of categories could reasonably be attributed to chance variations in sampling.

This method was used to analyze characteristics of the two different sub-groups of the total population.

The formula used for the Chi Square test was

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

where χ^2 = Chi Square

O = observed frequency

E = expected frequency under the assumption of no association

Garrett⁷ explained this statistical test by indicating that the more closely the observed results approximated to the expected, the smaller the Chi Square and the more similar the agreement between observed data and the null hypothesis being tested. On the other hand, the larger the Chi Square, the greater the probability of a real dissimilarity of observed results from the null hypothesis being tested.

Chapter Notes

¹Ferris State College, Student Handbook (Big Rapids, MI.: Student Services, 1984), p. 5.

²Interview with Michael C. Cooper, Ferris State College, Big Rapids, Michigan, 15, 21 May 1986.

³G. M. Smith, A Simplified Guide to Statistics for Psychology and Education (New York: Holt, Rinehart and Winston, Inc., 1970), p. 114.

⁴Ibid., p. 121.

⁵Wayne W. Daniel, Essentials of Business Statistics (Boston: Houghton Mifflin Co., 1984), p. 223.

⁶Smith, p. 186.

⁷Henry E. Garrett and R. S. Woodworth, Statistics in Psychology and Education (New York: Longmans, Green and Co., 1958), p. 254.

CHAPTER IV

ANALYSIS OF RESULTS

Introduction

The purpose of this study was to compare the academic performance of transfer baccalaureate marketing students with native baccalaureate marketing students in the School of Business at Ferris State College. Comparisons were made to determine their similarity or dissimilarity as measured by various grade point averages, course withdrawals, attrition percentages, reasons for attrition, academic probation percentages, and graduation percentages. Detailed statistical information showing these comparisons appears in Appendix I, "Statistical Data."

In this chapter each null hypothesis will be tested and research question answered. Tables are presented showing the appropriate statistical information.

Tests of Hypotheses and Answers to Research Questions

Null Hypothesis One

There are no significant differences in cumulative grade point averages between those of transfer marketing students and

those of native marketing students during their college freshman and sophomore years.

Tables 53-54 in Appendix I provide source data for Tables 10-11. Table 10 presents the cumulative freshman and sophomore grade point averages for all transfer and native students (status) included in this study.

Table 10. Cumulative Freshman and Sophomore Grade Point Statistics

		<u>Status</u>		Transfer and Native Students	
		Transfer Students	Native Students		
Number	67	Number	86	Number	153*
Mean	2.82	Mean	2.67	Mean	2.74
Std. Dev.	.51	Std. Dev.	.50	Std. Dev.	.51

*Only 153 of the 155 student population total are reported since cumulative freshman and sophomore grade point averages are unavailable for one male transfer student and one female transfer student included in the study.

It is noted that there is a difference between transfer students' averages (2.82) and native students' averages (2.67) for their first two years of college.

To test the significance of the difference the analysis of variance test was used. Table 11 shows the results of this test.

Table 11. Analysis of Variance Test of Cumulative Freshman and Sophomore Grade Point Averages

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Status	.897	1	.897	3.83	3.84	.052
Gender-Status	.921	1	.921	3.94	3.84	.049

Since the p-value for the Gender-Status combination (.049) is less than the level of significance (.05) there is a significant interaction between gender and status in this set of data. This interaction is further substantiated by the F ratio value for the Gender-Status combination (3.94) being greater than the critical F value (3.84).

While there is a difference between transfer and native students' (status) cumulative grade point averages for their freshman and sophomore years, the difference is not significant. This is suggested by the fact that the p-value for status (.052) is greater than the level of significance (.05) and the F ratio value (3.83) is less than the critical F value (3.84).

Thus, there is no significant difference based on status and Null Hypothesis One cannot be rejected.

Research Question One

Do grade point averages of college freshman and sophomore transfer marketing students

differ from those of native marketing students?

The data presented in Table 10 show a difference between transfer and native marketing students' freshman and sophomore grade point averages. Null Hypothesis One cannot, however, be rejected.

Thus, the answer to Research Question One is that grade point averages of college freshman and sophomore transfer marketing students do differ, but not significantly so, from those of native marketing students.

Null Hypothesis Two

There are no significant differences in grade point averages between those of transfer marketing students and those of native marketing students in four selected lower-level marketing courses.

In Null Hypothesis Two, grades for all selected lower-level marketing courses taken by students included in this study were used in calculating grade point averages for the four selected lower-level marketing courses.

Tables 55-56 in Appendix I provide source data for Tables 12-13. Table 12 presents the grade point averages earned in the four lower-level marketing courses by all transfer and native students (status) in this study.

Table 12. Grade Point Statistics for Four Selected Lower-Level Marketing Courses

		<u>Status</u>		Transfer and Native Students	
		Transfer Students	Native Students	Transfer and Native Students	
Number	66	Number	86	Number	152*
Mean	2.71	Mean	2.54	Mean	2.62
Std. Dev.	.71	Std. Dev.	.56	Std. Dev.	.64

*Only 152 of the 155 student population total are reported since two male transfer students and one female transfer student included in the study did not complete any of the four selected lower-level marketing courses.

It is noted that there is a difference between transfer students' averages (2.71) and native students' averages (2.54) for the four lower-level marketing courses.

To test the significance of the difference the analysis of variance test was used. Table 13 shows the results of this test.

Table 13. Analysis of Variance Test of Grade Point Averages for Four Selected Lower-Level Marketing Courses

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Status	1.120	1	1.120	2.84	3.84	.094
Gender-Status	.333	1	.333	.84	3.84	.360

Since the p-value for the Gender-Status combination (.360) is greater than the level of significance (.05) there

is not a significant interaction between gender and status in this set of data. This lack of interaction is further substantiated by the F ratio value for the Gender-Status combination (.84) being less than the critical F value (3.84).

While there is a difference between transfer and native students' (status) grade point averages for the four selected lower-level marketing courses, the difference is not significant. This is indicated by the fact that the p-value for status (.094) is greater than the level of significance (.05) and the F ratio value (2.84) is less than the critical F value (3.84).

Thus, there is no significant difference based on status and Null Hypothesis Two cannot be rejected.

Research Question Two

Do grade point averages of transfer marketing students differ from those of native marketing students for selected lower-level marketing courses?

The data presented in Table 12 show a difference between transfer and native students' grade point averages earned in the selected lower-level marketing courses. Null Hypothesis Two cannot, however, be rejected.

Thus, the answer to Research Question Two is that grade point averages of transfer marketing students do differ, but not significantly so, from those of native marketing students for selected lower-level marketing courses.

Null Hypothesis Three

There are no significant differences in cumulative grade point averages between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

Tables 57-58 in Appendix I provide source data for Tables 14-15. Table 14 presents the cumulative junior and senior grade point averages for all transfer and native students (status) included in this study.

Table 14. Cumulative Junior and Senior Grade Point Statistics

		<u>Status</u>		Transfer and Native Students	
Transfer Students		Native Students			
Number	67	Number	86	Number	153*
Mean	2.57	Mean	2.60	Mean	2.59
Std. Dev.	.55	Std. Dev.	.48	Std. Dev.	.51

*Only 153 of the 155 student population total are reported since one male transfer student and one female transfer student included in the study did not complete any full quarter at Ferris State College.

It is noted that there is a difference between transfer students' averages (2.57) and native students' averages (2.60) for their last two years of college.

To test the significance of the difference the analysis of variance test was used. Table 15 shows the results of this test.

Table 15. Analysis of Variance Test of Cumulative Junior and Senior Grade Point Averages

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Status	.011	1	.011	0.05	3.84	.832
Gender-Status	1.102	1	1.102	4.42	3.84	.037

Since the p-value for the Gender-Status combination (.037) is less than the level of significance (.05) there is a significant interaction between gender and status in this set of data. This interaction is further substantiated by the F ratio value for the Gender-Status combination (4.42) being greater than the critical F value (3.84).

While there is a difference between transfer and native students' (status) cumulative grade point averages for their junior and senior years, the difference is not significant. This is supported by the fact that the p-value for status (.832) is greater than the level of significance (.05) and the F ratio value (.05) is less than the critical F value (3.84).

Thus, there is no significant difference based on status and Null Hypothesis Three cannot be rejected.

Research Question Three

Do grade point averages of college junior and senior transfer marketing students differ from those of native marketing students?

The data presented in Table 14 show a difference between transfer and native marketing students' junior and senior grade point averages. Null Hypothesis Three cannot, however, be rejected.

Thus, the answer to Research Question Three is that grade point averages of college junior and senior transfer marketing students do differ, but not significantly so, from those of native marketing students.

Null Hypothesis Four

There are no significant differences in cumulative freshman and sophomore grade point averages and their grade point averages for the first quarter of their junior year between those of transfer marketing students and those of native marketing students.

Tables 59-60 in Appendix I provide source data for Tables 16-17. Table 16 presents the differences between cumulative freshman and sophomore grade point averages and the first quarter junior averages for all transfer and native students (status) included in this study.

Table 16. Differences in Cumulative Freshman and Sophomore Grade Point Statistics and Grade Point Statistics for First Quarter of Junior Year

		<u>Status</u>		Transfer and Native Students	
Transfer Students		Native Students			
Number	66	Number	86	Number	152*
Mean	-.25	Mean	-.02	Mean	-.12
Std. Dev.	.63	Std. Dev.	.57	Std. Dev.	.61

*Only 152 of the 155 student population total are reported since (a) cumulative freshman and sophomore grade point averages are unavailable for one female transfer student and one male transfer student included in the study and (b) the latter student as well as one female transfer student included in the study did not complete any full quarter at Ferris State College.

It is noted that there is a difference between the change of transfer students' averages (-.25) and native students' averages (-.02) when comparing the cumulative averages for their first two years of college with those of the first quarter of their junior year.

To test the significance of the difference the analysis of variance test was used. Table 17 shows the results of this test.

Table 17. Analysis of Variance Test of Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages for First Quarter of Junior Year

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Status	2.170	1	2.170	6.26	3.84	.013
Gender-Status	1.304	1	1.304	3.76	3.84	.054

Since the p-value for the Gender-Status combination (.054) is greater than the level of significance (.05) there may be no significant interaction between gender and status in this set of data. This possible lack of interaction is further substantiated by the F ratio value for the Gender-Status combination (3.76) being less than the critical F value (3.84).

The difference of change of transfer students' averages and native students' averages between their cumulative grade point averages for the first two years of college and the first quarter of their junior year is significant, however. This is evidenced by the fact that the p-value for status (.013) is less than the level of significance (.05) and the F ratio value (6.26) is greater than the critical F value (3.84).

Thus, there is significant difference based on status and Null Hypothesis Four is rejected.

Research Question Four

Do students experience transfer shock after transferring to a baccalaureate marketing curriculum at Ferris State College?

The data presented in Table 16 show changes between grade point averages for the first two years of college and the first quarter of the junior year occurred for all students included in this study. Null Hypothesis Four is rejected.

Thus, the answer to Research Question Four is that students do experience transfer shock after transferring to a baccalaureate marketing curriculum at Ferris State College.

Null Hypothesis Five

There are no significant differences in grade point averages between those of transfer marketing students and those of native marketing students in five selected upper-level marketing courses.

In Null Hypothesis Five, grades for all selected upper-level marketing courses taken by students included in this study were used in calculating grade point averages for the five selected upper-level marketing courses.

Tables 61-62 in Appendix I provide source data for Tables 18-19. Table 18 presents the grade point averages earned in the five upper-level marketing courses by all transfer and native students (status) in this study.

Table 18. Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses

		<u>Status</u>		Transfer and Native Students	
Transfer Students		Native Students			
Number	57	Number	79	Number	136*
Mean	2.39	Mean	2.46	Mean	2.43
Std. Dev.	.57	Std. Dev.	.53	Std. Dev.	.54

*Only 136 of the 155 student population total are reported since five male transfer students, seven female transfer students, five male native students and two female native students included in the study did not complete any of the five selected upper-level marketing courses.

It is noted that there is a difference between transfer students' averages (2.39) and native students' averages (2.46) for the five upper-level marketing courses.

To test the significance of the difference the analysis of variance test was used. Table 19 shows the results of this test.

Table 19. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Status	.116	1	.116	.40	3.84	.530
Gender-Status	.142	1	.142	.48	3.84	.488

Since the p-value for the Gender-Status combination (.488) is greater than the level of significance (.05) there is not a significant interaction between gender and status in this set of data. This lack of interaction is further substantiated by the F ratio value for the Gender-Status combination (.48) being less than the critical F value (3.84).

While there is a difference between transfer and native students' (status) grade point averages for the five selected upper-level marketing courses, the difference is not significant. This is suggested by the fact that the p-value for status (.530) is greater than the level of significance (.05) and the F ratio value (.40) is less than the critical F value (3.84).

Thus, there is no significant difference based on status and Null Hypothesis Five cannot be rejected.

Research Question Five

Do grade point averages of transfer marketing students differ from those of native marketing students for selected upper-level marketing courses?

The data presented in Table 18 show a difference between transfer and native students' grade point averages earned in the selected upper-level marketing courses. Null Hypothesis Five cannot, however, be rejected.

Thus, the answer to Research Question Five is that grade point averages of transfer marketing students do differ, but not significantly so, from those of native marketing students for selected upper-level marketing courses.

Null Hypothesis Six

There are no significant differences in grade point averages of students for five selected upper-level marketing courses, between those of transfer marketing students who had taken four selected lower-level marketing courses at other regionally accredited colleges and those of native marketing students who had taken four selected lower-level marketing courses at Ferris State College.

In Null Hypothesis Six, grades for all selected upper-level marketing courses taken by students included in this study were used in calculating grade point averages for the five selected upper-level marketing courses. Likewise, students must have taken at least three of four selected lower-level marketing courses at a regionally accredited college other than Ferris State College or three of four selected lower-level marketing courses at Ferris State College to be included in the calculations.

Tables 63-64 in Appendix I provide source data for Tables 20-21. Table 20 presents the grade point averages earned in the five upper-level marketing courses by all

transfer students who took lower-level marketing courses at regionally accredited colleges other than Ferris State College, and by all native students who took lower-level marketing courses at Ferris State College.

Table 20. Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

		<u>Status</u>		Transfer and Native Students	
Transfer Students		Native Students			
Number	18	Number	74	Number	92*
Mean	2.47	Mean	2.46	Mean	2.46
Std. Dev.	.66	Std. Dev.	.54	Std. Dev.	.56

*Only ninety-two of the 155 student population are reported since (a) thirty-one male transfer students and twenty female transfer students included in the study did not complete at least three lower-level marketing courses at regionally accredited colleges other than Ferris State College and (b) nine male native students and three female native students included in the study did not complete at least three lower-level marketing courses at Ferris State College.

It is noted that there is a difference in grade point averages for selected upper-level marketing courses between transfer students who had taken lower-level marketing courses at other colleges (2.47) and native students who had taken lower-level marketing courses at Ferris State College (2.46).

To test the significance of the difference the analysis of variance test was used. Table 21 shows the results of this test.

Table 21. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Status	.005	1	.005	.01	3.84	.903
Gender-Status	.068	1	.068	.22	3.84	.643

Since the p-value for the Gender-Status combination (.643) is greater than the level of significance (.05) there is not a significant interaction between gender and status in this set of data. This lack of interaction is further substantiated by the F ratio value for the Gender-Status combination (.22) being less than the critical F value (3.84).

While there is a difference in upper-level marketing course grade point averages between transfer students (status) who took lower-level marketing courses at colleges other than Ferris State College and native students (status) who took lower-level marketing courses at Ferris State College, the difference is not significant.

This is indicated by the fact that the p-value for status (.903) is greater than the level of significance (.05) and the F ratio value (.01) is less than the critical F value (3.84).

Thus, there is no significant difference based on status and Null Hypothesis Six cannot be rejected.

Research Question Six

Do grade point averages of students for selected upper-level marketing courses, who took selected lower-level marketing courses at other regionally accredited colleges, differ from those of students who took selected lower-level marketing courses at Ferris State College?

The data presented in Table 20 show a difference in grade point averages earned in upper-level marketing courses between transfer students who took lower-level marketing courses at other colleges and native students who took lower-level marketing courses at Ferris State College. Null Hypothesis Six cannot, however, be rejected.

Thus, the answer to Research Question Six is that grade point averages of students for selected upper-level marketing courses, who took selected lower-level marketing courses at other regionally accredited colleges do differ, but not significantly so, from those of students who took selected lower-level marketing courses at Ferris State College.

Null Hypothesis Seven

There are no significant differences in percentages of course withdrawals between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

Tables 65-66 in Appendix I provide source data for Tables 22-23. Table 22 presents the course withdrawal numbers and percentages for transfer and native students (status) included in this study.

Table 22. Course Withdrawals of Juniors and Seniors

Number of Courses Withdrawn	<u>Status</u>				Transfer and Native Students	
	<u>Transfer Students</u>		<u>Native Students</u>		<u>Students</u>	
	Number	%	Number	%	Number	%
0	25	36.2*	26	30.2*	51	32.9*
1	16	23.2	12	14.0	28	18.1
2	10	14.5	26	30.2	36	23.2
3 or more	<u>18</u>	<u>26.1</u>	<u>22</u>	<u>25.6</u>	<u>40</u>	<u>25.8</u>
	69	100.0	86	100.0	155	100.0

* Column percent

It is noted that there is a difference between transfer and native students in the percentages for each of the four number categories of courses withdrawn.

To test the significance of the differences the Chi Square test was used. Table 23 shows the results of this test.

Table 23. Chi Square Test of Course Withdrawals of Juniors and Seniors

Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
3	6.314	7.815	.097

While there is a difference between transfer and native students' (status) withdrawal percentages, the difference is not significant. This is supported by the fact that the p-value (.097) is greater than the level of significance (.05) and the Chi Square value (6.314) is less than the critical Chi Square value (7.815).

Thus, there is no significant difference based on status and Null Hypothesis Seven cannot be rejected.

Research Question Seven

Do course withdrawal percentages of transfer marketing students differ from those of native marketing students?

The data presented in Table 22 show a difference between transfer and native marketing students' percentages of course withdrawals. Null Hypothesis Seven cannot, however, be rejected. Thus, the answer to Research Question

Seven is that course withdrawal percentages of transfer marketing students do differ, but not significantly so, from those of native marketing students.

Null Hypothesis Eight

There are no significant differences in percentages of attrition between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

Tables 67-68 in Appendix I provide source data for Tables 24-25. Table 24 presents the attrition numbers and percentages for transfer and native students (status) included in this study.

Table 24. Attrition of Juniors and Seniors

<u>Status</u>			<u>Transfer and Native Students</u>		
<u>Transfer Students</u>			<u>Native Students</u>		
Total No.	Att. No.	Att. %	Total No.	Att. No.	Att. %
69	15	21.7	86	12	14.0

It is noted that there is a difference between transfer students' percentage of attrition (21.7%) and native students' percentage of attrition (14.0%).

To test the significance of the difference the Chi Square test was used. Table 25 shows the results of this test.

Table 25. Chi Square Test of Attrition of Juniors and Seniors

Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
1	1.613	3.841	.204

While there is a difference between transfer and native students' (status) attrition percentages, the difference is not significant. This is evidenced by the fact that the p-value (.204) is greater than the level of significance (.05) and the Chi Square value (1.613) is less than the critical Chi Square value (3.841).

Thus, there is no significant difference based on status and Null Hypothesis Eight cannot be rejected.

Research Question Eight

Do percentages of attrition of transfer marketing students differ from those of native marketing students?

The data presented in Table 24 show a difference between transfer and native marketing students' attrition

percentages. Null Hypothesis Eight cannot, however, be rejected.

Thus, the answer to Research Question Eight is that attrition percentages of transfer marketing students do differ, but not significantly so, from those of native marketing students.

Null Hypothesis Nine

There are no significant differences in percentages of attrition for selected reasons between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

Tables 69-70 in Appendix I provide source data for Tables 26-27. Table 26 presents the numbers and percentages of reasons for attrition for all transfer and native students (status) included in this study.

Table 26. Reasons for Attrition of Juniors and Seniors

Att. Reason	<u>Status</u>				<u>Transfer and Native Students</u>	
	<u>Transfer Students</u>		<u>Native Students</u>			
	Att. No.	Att. %	Att. No.	Att. %	Att. No.	Att. %
Grades	5	33.3*	8	66.7*	13	48.2*
Financial	5	33.3	2	16.7	7	25.9
Illness	1	6.7	0	0	1	3.7
Live at Home	1	6.7	0	0	1	3.7
Cur. Change	1	6.7	2	16.7	3	11.1
Unknown	2	13.3	0	0	2	7.4
	15	100.0	12	100.0**	27	100.0

* Column percent

**Values actually add to 100.1% because of rounding each percent to nearest one-tenth

It is noted that there is a difference between transfer and native students in the numbers and percentages for each of the six attrition reasons studied. It is also noted that grades accounted for an overwhelmingly large percentage of the reasons for attrition. The remaining reasons were so few that they were grouped together to form more adequate numbers to test for significance by using the Chi Square test. Table 27 shows the results of this test.

Table 27. Chi Square Test of Reasons for Attrition by Grades Compared to Other Reasons for Attrition of Juniors and Seniors

Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
1	2.967	3.841	.085

While there is a difference between transfer and native students' reasons for attrition, the difference is not significant. This is suggested by the fact that the p-value (.085) is greater than the level of significance (.05) and the Chi Square value (2.967) is less than the critical Chi Square value (3.841).

Thus, there is no significant difference based on status and Null Hypothesis Nine cannot be rejected.

Research Question Nine

Do percentages of attrition, for selected reasons, of transfer marketing students differ from those of native marketing students?

The data presented in Table 28 show a difference between transfer and native students' reasons for attrition. Null Hypothesis Nine cannot, however, be rejected.

Thus, the answer to Research Question Nine is that percentages of attrition for selected reasons, of transfer

marketing students do differ, but not significantly so, from those of native marketing students.

Null Hypothesis Ten

There are no significant differences in percentages of students on academic probation between those of transfer marketing students and those of native marketing students during their junior and senior years at Ferris State College.

Tables 71-72 in Appendix I provide source data for Tables 28-29. Table 28 presents the academic probation numbers and percentages for all transfer and native students (status) included in this study.

Table 28. Juniors and Seniors on Academic Probation for Any One Quarter

<u>Transfer Students</u>			<u>Native Students</u>			<u>Transfer and Native Students</u>		
Total No.	Pro. No.	Pro. %	Total No.	Pro. No.	Pro. %	Total No.	Pro. No.	Pro. %
69	4	5.8	86	7	8.1	155	11	7.1

It is noted that there is a difference in probation percentages between transfer students (5.8%) and native students (8.1%).

To test the significance of the difference the Chi Square test was used. Table 29 shows the results of this test.

Table 29. Chi Square Test of Juniors and Seniors on Academic Probation for Any One Quarter

Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
1	.319	3.841	.572

While there is a difference between transfer and native students' academic probation percentages, the difference is not significant. This is indicated by the fact that the p-value (.572) is greater than the level of significance (.05) and the Chi Square value (.319) is less than the critical Chi Square value (3.841).

Thus, there is no significant difference based on academic probation percentages and Null Hypothesis Ten cannot be rejected.

Research Question Ten

Do academic probation percentages of transfer marketing students differ from those of native marketing students?

The data presented in Table 28 show a difference between transfer and native marketing students' academic

probation percentages. Null Hypothesis Ten cannot, however, be rejected.

Thus, the answer to Research Question Ten is that academic probation percentages of transfer marketing students do differ, but not significantly so, from those of native marketing students.

Null Hypothesis Eleven

There are no significant differences in percentages of graduation from a baccalaureate marketing curriculum between those of transfer marketing students and those of native marketing students at Ferris State College.

Tables 73-74 in Appendix I provide source data for Tables 30-31. Table 30 presents the graduation numbers and percentages for transfer and native students (status) included in this study.

Table 30. Seniors Who Graduated by Spring 1986

<u>Transfer Students</u>			<u>Status</u>			<u>Transfer and Native Students</u>		
Total No.	Grd. No.	Grd. %	Total No.	Grd. No.	Grd. %	Total No.	Grd. No.	Grd. %
69	54	78.3	86	73	84.9	155	127	81.9

It is noted that there is a difference between transfer students' percentage of graduation (78.3%) and native students' percentage of graduation (84.9%).

To test the significance of the difference the Chi Square test was used. Table 31 shows the results of this test.

Table 31. Chi Square Test of Seniors Who Graduated by Spring 1986

Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
1	1.135	3.841	.287

While there is a difference between transfer and native students' (status) graduation percentages, the difference is not significant. This is supported by the fact that the p-value (.287) is greater than the level of significance (.05) and the Chi Square value (1.135) is less than the critical Chi Square value (3.841).

Thus, there is no significant difference based on status and Null Hypothesis Eleven cannot be rejected.

Research Question Eleven

Do graduation percentages of transfer marketing students differ from those of native marketing students?

The data presented in Table 30 show a difference between transfer and native students' graduation percentages. Null Hypothesis Eleven cannot, however, be rejected.

Thus, the answer to Research Question Eleven is that graduation percentages of transfer marketing students do differ, but not significantly so, from those of native marketing students.

Null Hypothesis Twelve and Research Question Twelve

Null Hypothesis Twelve

There are no significant differences in academic accomplishments between those of male and female transfer marketing students and those of male and female native marketing students at Ferris State College.

Research Question Twelve

Do academic accomplishments of male and female transfer marketing students differ from those of male and female native marketing students?

Null Hypothesis Twelve will be tested and Research Question Twelve will be answered considering gender for each of the variables appearing in the preceeding eleven null hypotheses and research questions. Thus, Null Hypothesis Twelve and Research Question Twelve will each be numbered

12-1 through 12-11, to coincide with each of the eleven variables considered.

12-1. Cumulative Freshman and Sophomore Grade Point Averages

Tables 53-54 in Appendix I provide source data for Tables 32-33. Table 32 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their cumulative freshman and sophomore grade point averages.

Table 32. Cumulative Freshman and Sophomore Grade Point Statistics by Gender

Gender	<u>Status</u>				Transfer and Native Students	
	Transfer Students		Native Students			
Male	Number	40	Number	48	Number	88
	Mean	2.78	Mean	2.49	Mean	2.62
	Std. Dev.	.53	Std. Dev.	.45	Std. Dev.	.51
Female	Number	27	Number	38	Number	65
	Mean	2.87	Mean	2.90	Mean	2.89
	Std. Dev.	.49	Std. Dev.	.47	Std. Dev.	.47

It is apparent that there is a difference between male transfer students' averages (2.78) and male native students' averages (2.49) for their first two years of college. There is also a difference between female transfer students' averages (2.87) and female native students' averages (2.90) for the same period of time.

To test the significance of the differences the analysis of variance test was used. Table 33 shows the results of this test.

Table 33. Analysis of Variance Test of Cumulative Freshman and Sophomore Grade Point Averages by Gender

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender-Status	.921	1	.921	3.94	3.84	.049

Here the p-value (.049) is less than the level of significance (.05) and the F ratio value (3.94) is greater than the critical F value (3.84). These values for this part of the set of data show a significant interaction and Null Hypothesis 12-1 is rejected.

The data presented in Table 32 show a significant difference in academic accomplishments when comparing cumulative freshman and sophomore grade point averages between male transfer and male native students, and between female transfer and female native students. Null Hypothesis 12-1 is rejected.

Thus, the answer to Research Question 12-1 is that academic accomplishments of transfer marketing students, by gender, do differ significantly from those of native marketing students when based on their cumulative freshman and sophomore grade point averages.

12-2. Grade Point Averages for Four Selected Lower-Level Marketing Courses

Grades for all selected lower-level marketing courses taken by students included in this study were used in calculating grade point averages for the four selected lower-level marketing courses. Tables 55-56 in Appendix I provide source data for Tables 34-35. Table 34 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their grade point averages in four selected lower-level marketing courses.

Table 34. Grade Point Statistics by Gender for Four Selected Lower-Level Marketing Courses

Gender	<u>Status</u>				Transfer and Native Students	
	Transfer Students		Native Students			
Male	Number	39	Number	48	Number	87
	Mean	2.68	Mean	2.43	Mean	2.54
	Std. Dev.	.69	Std. Dev.	.55	Std. Dev.	.63
Female	Number	27	Number	38	Number	65
	Mean	2.75	Mean	2.69	Mean	2.71
	Std. Dev.	.74	Std. Dev.	.56	Std. Dev.	.64

It is apparent that there is a difference between male transfer students' averages (2.68) and male native students' averages (2.43) for the four selected lower-level marketing courses. There is also a difference between female transfer students' averages (2.75) and female native students' averages (2.69) for the same courses.

To test the significance of the differences the analysis of variance test was used. Table 35 shows the results of this test.

Table 35. Analysis of Variance Test of Grade Point Averages by Gender for Four Selected Lower-Level Marketing Courses

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender-Status	.333	1	.333	.84	3.84	.360

Here the p-value (.360) is greater than the level of significance (.05) and the F ratio value (.84) is less than the critical F value (3.84). These values for this part of the set of data show no significant interaction and Null Hypothesis 12-2 cannot be rejected.

The data presented in Table 34 show a difference in academic accomplishments when comparing grades earned in selected lower-level marketing courses between male transfer and male native students, and between female transfer and female native students. Null Hypothesis 12-2 cannot, however, be rejected.

Thus, the answer to Research Question 12-2 is that academic accomplishments of transfer marketing students, by gender, do differ, but not significantly so, from those of native marketing students when based on their grade point averages earned in selected lower-level marketing courses.

12-3. Cumulative Junior and Senior Grade Point Averages

Tables 57-58 in Appendix I provide source data for Tables 36-37. Table 36 presents the academic accomplishment of male transfer, male native, female transfer, and female native students based on their cumulative junior and senior grade point averages.

Table 36. Cumulative Junior and Senior Grade Point Statistics by Gender

Gender	<u>Status</u>				Transfer and Native Students	
	Transfer Students		Native Students			
Male	Number	40	Number	48	Number	88
	Mean	2.58	Mean	2.45	Mean	2.51
	Std. Dev.	.53	Std. Dev.	.45	Std. Dev.	.49
Female	Number	27	Number	38	Number	65
	Mean	2.57	Mean	2.79	Mean	2.69
	Std. Dev.	.57	Std. Dev.	.47	Std. Dev.	.52

It is apparent that there is a difference between male transfer students' averages (2.58) and male native students' averages (2.45) for their last two years of college. There is also a difference between female transfer students' averages (2.57) and female native students' averages (2.79) for the same period of time.

To test the significance of the differences the analysis of variance test was used. Table 37 shows the results of this test.

Table 37. Analysis of Variance Test of Cumulative Junior and Senior Grade Point Averages by Gender

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender-Status	1.102	1	1.102	4.42	3.84	.037

Here the p-value (.037) is less than the level of significance (.05) and the F ratio value (4.42) is greater than the critical F value (3.84). These values for this part of the set of data show a significant interaction and Null Hypothesis 12-3 is rejected.

The data presented in Table 36 show a significant difference in academic accomplishments when comparing cumulative junior and senior grade point averages between male transfer and male native students, and between female transfer and female native students. Null Hypothesis 12-3 is rejected.

Thus, the answer to Research Question 12-3 is that academic accomplishments of transfer marketing students, by gender, do differ significantly from those of native marketing students when based on their cumulative junior and senior grade point averages.

12-4. Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages of First Quarter of Junior Year

Tables 59-60 in Appendix I provide source data for Tables 38-39. Table 38 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their differences between cumulative freshman and sophomore grade point averages and the first quarter junior averages.

Table 38. Differences in Cumulative Freshman and Sophomore Grade Point Statistics and Grade Point Statistics for First Quarter of Junior Year by Gender

Gender	<u>Status</u>		<u>Transfer and Native Students</u>	
	Transfer Students	Native Students	Transfer Students	Native Students
Male	Number	40	Number	48
	Mean	-.28	Mean	.12
	Std. Dev.	.70	Std. Dev.	.52
Female	Number	28	Number	38
	Mean	-.20	Mean	-.18
	Std. Dev.	.52	Std. Dev.	.59

It is apparent that there is a difference in the changes in the averages of male transfer students (-.28) and male native students' changes (.12) between their first two years of college and the first quarter of their junior year. There is also a difference in the change in the averages of female transfer students (-.20) and female native students (-.18) for the same comparison.

To test the significance of the changes the analysis of variance test was used. Table 39 shows the results of this test.

Table 39. Analysis of Variance Test of Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages for First Quarter of Junior Year by Gender

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender-Status	1.304	1	1.304	3.76	3.84	.054

Here the p-value (.054) is greater than the level of significance (.05) and the F ratio value (3.76) is less than the critical F value (3.84). These values for this part of the set of data show no significant interaction and Null Hypothesis 12-4 cannot be rejected.

The data presented in Table 38 show a difference in the change of cumulative freshman and sophomore grade point averages compared with the first quarter junior averages between male transfer and male native, and female transfer and female native students. Null Hypothesis 12-4 cannot, however, be rejected.

Thus, the answer to Research Question 12-4 is that academic accomplishments of transfer marketing students, by gender, do differ, but not significantly so, from those of native marketing students when based on changes of grade

point averages between cumulative freshman and sophomore years and the first quarter of the junior year.

12-5. Grade Point Averages for Five Selected Upper-Level Marketing Courses

Grades for all selected upper-level marketing courses taken by students included in this study were used in calculating grade point averages for the five selected upper-level marketing courses. Tables 61-62 in Appendix I provide source data for Tables 40-41.

Table 40 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their grade point averages in five selected upper-level marketing courses.

Table 40. Grade Point Statistics of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses

Gender	<u>Status</u>				<u>Transfer and Native Students</u>	
	Transfer Students		Native Students			
Male	Number	36	Number	43	Number	79
	Mean	2.35	Mean	2.36	Mean	2.35
	Std. Dev.	.53	Std. Dev.	.47	Std. Dev.	.49
Female	Number	21	Number	36	Number	57
	Mean	2.45	Mean	2.59	Mean	2.54
	Std. Dev.	.64	Std. Dev.	.57	Std. Dev.	.59

It is apparent that there is a slight difference between male transfer students' averages (2.35) and male native students' averages (2.36) for the five selected

upper-level marketing courses. There is also a difference between female transfer students' averages (2.45) and female native students' averages (2.59) for the same courses.

To test the significance of the differences the analysis of variance test was used. Table 41 shows the results of this test.

Table 41. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender-Status	.142	1	.142	.48	3.84	.488

Here the p-value (.488) is greater than the level of significance (.05) and the F ratio value (.48) is less than the critical F value (3.84). The values for this part of the set of data show no significant interaction and Null Hypothesis 12-5 cannot be rejected.

The data presented in Table 40 show a difference in academic accomplishments when comparing grades earned in selected upper-level marketing courses between male transfer and male native students, and between female transfer and female native students. Null Hypothesis 12-5 cannot, however, be rejected.

Thus, the answer to Research Question 12-5 is that academic accomplishments of transfer marketing students, by

gender, do differ, but not significantly so, from those of native marketing students when based on their grade point averages earned in selected upper-level marketing courses.

12-8. Grade Point Averages for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College, and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

Grades for all selected upper-level marketing courses taken by students included in this study were used in calculating grade point averages for the five selected upper-level marketing courses. Likewise, students must have taken at least three of four selected lower-level marketing courses at a regionally accredited college other than Ferris State College or three of four selected lower-level marketing courses at Ferris State College to be included in the calculations.

Tables 63-64 in Appendix I provide source data for Tables 42-43.

Table 42 presents the academic accomplishments based on their grade point averages in five selected upper-level marketing courses for male and female transfer students who had taken lower-level marketing courses at regionally accredited colleges other than Ferris State College and for male and female native students who had taken lower-level marketing courses at Ferris State College.

Table 42. Grade Point Statistics of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

Gender	<u>Status</u>		Transfer and Native Students	
	Transfer Students	Native Students		
Male	Number	10	Number	39
	Mean	2.42	Mean	2.34
	Std. Dev.	.64	Std. Dev.	.49
Female	Number	8	Number	35
	Mean	2.53	Mean	2.59
	Std. Dev.	.72	Std. Dev.	.57

It is apparent that there is a difference in grade point averages earned in five selected upper-level marketing courses between male transfer students (2.42) who had taken lower-level marketing courses at other colleges and male native students (2.34) who had taken lower-level marketing courses at Ferris State College.

There is also a difference in grade point averages in five selected upper-level marketing courses between female transfer students (2.53) who had taken lower-level marketing courses at other colleges and female native students (2.59) who had taken lower-level marketing courses at Ferris State College.

To test the significance of the differences the analysis of variance test was used. Table 43 shows the results of this test.

Table 43. Analysis of Variance Test of Grade Point Averages of Juniors and Seniors by Gender for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender-Status	.068	1	.068	.22	3.84	.643

Here the p-value (.643) is greater than the level of significance (.05) and the F ratio value (.22) is less than the critical F value (3.84). The values for this part of the set of data show no significant interaction and Null Hypothesis 12-6 cannot be rejected.

The data presented in Table 42 show a difference in academic accomplishments when comparing grade point averages of upper-level marketing courses between male transfer students who completed lower-level marketing courses at other colleges and male native students who completed lower-level marketing courses at Ferris State College, and between female transfer students who completed lower-level marketing courses at other colleges and female native students who

completed lower-level marketing courses at Ferris State College. Null Hypothesis 12-6 cannot, however, be rejected.

Thus, the answer to Research Question 12-6 is that academic accomplishments of transfer marketing students, by gender, do differ, but not significantly so, from those of native marketing students when based on their grade point averages of upper-level marketing courses for transfer students who took lower-level marketing courses at other regionally accredited colleges in comparison to native students who took lower-level marketing courses at Ferris State College.

12-7. Course Withdrawals by Juniors and Seniors

Tables 65-66 in Appendix I provide source data for Tables 44-45.

Table 44 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their percentages of course withdrawals for each of the four categories of numbers presented.

Table 44. Course Withdrawals of Juniors and Seniors by Gender

Gender	Number of Courses Withdrawn	<u>Status</u>		<u>Transfer and Native Students</u>	
		<u>Transfer Students</u>	<u>Native Students</u>	<u>Transfer and Native Students</u>	
		Number %	Number %	Number %	
Male	0	14 34.2*	11 22.9*	25 28.1*	
	1	10 24.4	8 16.7	18 20.2	
	2	6 14.6	13 27.1	19 21.4	
	3 or more	<u>11 26.8</u>	<u>16 33.3</u>	<u>27 30.3</u>	
		41 100.0	48 100.0	89 100.0	
Female	0	11 39.3*	15 39.5*	26 39.4*	
	1	6 21.4	4 10.5	10 15.2	
	2	4 14.3	13 34.2	17 25.8	
	3 or more	<u>7 25.0</u>	<u>6 15.8</u>	<u>13 19.7</u>	
		28 100.0	38 100.0	66 100.0**	

* Column percent

**Values actually add to 100.1% because of rounding each percent to nearest one-tenth

It is apparent that there is a difference in the course withdrawal percentages between male transfer students and male native students in each of the four categories of course withdrawal numbers presented. There is also a difference between female transfer students and female native students in each of the four categories of course withdrawal numbers presented.

To test the significance of the differences the Chi Square test was used. Table 45 shows the results of this test.

Table 45. Chi Square Test of Course Withdrawals of Juniors and Seniors by Gender

Gender	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
Male	3	3.559	7.815	.313
Female	3	4.444	7.815	.217

Here the p-value for males (.313) is greater than the level of significance (.05) and the Chi Square value (3.559) is less than the critical Chi Square value (7.815). These values for this part of the set of data do not show a significant interaction.

The p-value for females (.217) is also greater than the level of significance (.05) and the Chi Square value (4.444) is less than the critical Chi Square value (7.815). These values do not show a significant interaction.

Thus, the above data show that Null Hypothesis 12-7 cannot be rejected.

The data presented in Table 44 show a difference in academic accomplishments when comparing course withdrawal percentages between male transfer and male native students and between female transfer and female native students. Null Hypothesis 12-7 cannot, however, be rejected.

Thus, the answer to Research Question 12-7 is that academic accomplishments of transfer marketing students, by gender, do differ, but not significantly so, from those of

native marketing students when based on their percentages of course withdrawals.

12-8. Attrition of Juniors and Seniors

Tables 67-68 in Appendix I provide source data for Tables 46-47.

Table 46 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their attrition numbers and percentages.

Table 46. Attrition of Juniors and Seniors by Gender

Gender	<u>Status</u>						Transfer and Native Students		
	<u>Transfer Students</u>			<u>Native Students</u>					
	Total No.	Att. No.	Att. %	Total No.	Att. No.	Att. %	Total No.	Att. No.	Att. %
Male	41	7	17.1	48	9	18.8	89	16	18.0
Female	28	8	28.6	38	3	7.9	66	11	16.7

It is apparent that there is a difference in attrition percentages between male transfer students (17.1%) and male native students (18.8%). There is also a difference in attrition between female transfer students (28.6%) and female native students (7.9%).

To test the significance of the differences the Chi Square test was used. Table 47 shows the results of this test.

Table 47. Chi Square Test of Attrition of Juniors and Seniors by Gender

Gender	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
Male	1	.042	3.841	.837
Female	1	4.962	3.841	.026

Here the p-value for males (.837) is greater than the level of significance (.05) and the Chi Square value (.042) is less than the critical Chi Square value (3.841). These values for this part of the set of data do not show a significant interaction and Null Hypothesis 12-8 for males cannot be rejected.

The p-value for females, however, (.026) is less than the level of significance (.05) and the Chi Square value (4.962) is greater than the critical Chi Square value (3.841). These values for this part of the set of data do show a significant interaction and Null Hypothesis 12-8 for females is rejected.

The data presented in Table 46 show differences in academic accomplishments when comparing attrition between male transfer and male native students, and between female transfer and female native students. Null Hypothesis 12-8 cannot, however, be rejected for male students while it can be rejected for female students.

Thus, the answer to Research Question 12-8 is that academic accomplishments based on attrition of male transfer marketing students do differ, but not significantly so, from those of male native marketing students, while the accomplishments of female transfer marketing students based on attrition do differ significantly from those of female native marketing students.

12-9. Reasons for Attrition of Juniors and Seniors

Table 69 in Appendix I provides data for Table 48.

Table 48 presents the numbers and percentages of reasons for attrition of male transfer, male native, female transfer, and female native students.

Table 48. Reasons for Attrition of Juniors and Seniors by Gender

Gender	Att. Reason	<u>Status</u>				<u>Transfer and Native Students</u>	
		<u>Transfer Students</u>		<u>Native Students</u>			
		Att. No.	Att. %	Att. No.	Att. %	Att. No.	Att. %
Male	Grades	1	14.3*	7	77.8*	8	50.0*
	Financial	4	57.1	2	22.2	6	37.5
	Illness	0	0	0	0	0	0
	Live at Home	1	14.3	0	0	1	6.3
	Cur. Change	0	0	0	0	0	0
	Unknown	<u>1</u>	<u>14.3</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>6.3</u>
		7	100.0	9	100.0	16	100.0**
Female	Grades	4	50.0*	1	33.3*	5	45.5*
	Financial	1	12.5	0	0	1	9.1
	Illness	1	12.5	0	0	1	9.1
	Live at Home	0	0	0	0	0	0
	Cur. Change	1	12.5	2	66.7	3	27.3
	Unknown	<u>1</u>	<u>12.5</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>9.1</u>
		8	100.0	3	100.0	11	100.0**

* Column percent

**Values actually add to 100.1% because of rounding each percent to nearest one-tenth

It is apparent that there is a difference in reasons for attrition between male transfer students and male native students, and between female transfer students and female native students for each of the reasons selected. Again, since grades were the predominant reason for attrition, they were compared with all other reasons combined in testing the significance of the differences. The expected values are, however, too low to furnish adequate

support for the Chi Square test. Therefore, the Chi Square test of Null Hypothesis 12-9 cannot be performed.

The data presented in Table 48 show differences in reasons for attrition between male transfer and male native students, and between female transfer and female native students. Since Null Hypothesis 12-9 cannot, however, be tested it is inappropriate to answer statistically Research Question 12-9.

12-10. Academic Probation for Any One Quarter of Juniors and Seniors

Tables 71-72 in Appendix I provide source data for Tables 49-50.

Table 49 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their academic probation numbers and percentages.

Table 49. Juniors and Seniors by Gender on Academic Probation for Any One Quarter

Gender	<u>Status</u>						Transfer and Native Students		
	<u>Transfer Students</u>			<u>Native Students</u>			<u>Students</u>		
	Total No.	Pro. No.	Pro. %	Total No.	Pro. No.	Pro. %	Total No.	Pro. No.	Pro. %
Male	41	2	4.9	48	7	14.6	89	9	10.1
Female	28	2	7.1	38	0	0	66	2	3.0

It is apparent that there is a difference in probation percentages between male transfer students (4.9%) and male native students (14.6%). There is also a difference in probation between female transfer students (7.1%) and female native students (0.0%).

To test the significance of the differences the Chi Square test was used. The expected values for females, however, are too low to furnish adequate support for the Chi Square test for that grouping. Therefore, the Chi Square test for females in Null Hypothesis 12-10 cannot be performed. Table 50 shows the results of the Chi Square test for males.

Table 50. Chi Square Test of Male Juniors and Seniors on Academic Probation for Any One Quarter

Gender	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
Male	1	2.291	3.841	.130

Here the p-value (.130) is greater than the level of significance (.05) and the Chi Square value (2.291) is less than the critical Chi Square value (3.841).

These values for this part of the set of data show no significant interaction and Null Hypothesis 12-10 for males cannot be rejected.

The data presented in Table 49 show differences in academic accomplishments when comparing academic probation between male transfer and male native students, and between female transfer and female native students. Null Hypothesis 12-10 cannot, however, be rejected for male students.

Thus, the answer to Research Question 12-10 is that academic accomplishments of male transfer marketing students do differ, but not significantly so, from those of male native marketing students when based on their percentages of academic probation. Since Null Hypothesis 12-10 for females cannot be tested, it is inappropriate to answer statistically Research Question 12-10 for females.

12-11. Seniors Who Graduated by Spring 1986

Tables 73-74 in Appendix I provide source data for Tables 51-52.

Table 51 presents the academic accomplishments of male transfer, male native, female transfer, and female native students based on their graduation numbers and percentages.

Table 51. Seniors by Gender Who Graduated by Spring 1986

Gender	<u>Status</u>								
	<u>Transfer Students</u>			<u>Native Students</u>			<u>All Students</u>		
	Total No.	Grd. No.	Grd. %	Total No.	Grd. No.	Grd. %	Total No.	Grd. No.	Grd. %
Male	41	34	82.9	48	38	79.2	89	72	80.9
Female	28	20	71.4	38	35	92.1	66	55	83.3

It is apparent that there is a difference in graduation percentages between male transfer students (82.9%) and male native students (79.2%). There is also a difference in graduation percentages between female transfer students (71.4%) and female native students (92.1%).

To test the significance of the differences the Chi Square test was used. Table 52 shows the results of this test.

Table 52. Chi Square Test of Seniors by Gender Who Graduated by Spring 1986

Gender	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
Male	1	.202	3.841	.653
Female	1	4.962	3.841	.026

Here the p-value for males (.653) is greater than the level of significance (.05) and the Chi Square value (.202) is less than the critical Chi Square value (3.841). These values for this part of the set of data show no significant interaction and Null Hypothesis 12-11 for males cannot be rejected.

The p-value for females, however, (.026) is less than the level of significance (.05) and the Chi Square value (4.962) is greater than the critical Chi Square value (3.841). These values do show a significant interaction and Null Hypothesis 12-11 for females is rejected.

The data presented in Table 51 show differences in academic accomplishments when comparing graduation percentages between male transfer and male native students, and between female transfer and female native students. Null Hypothesis 12-11 cannot, however, be rejected for male students while it can be rejected for female students.

Thus, the answer to Research Question 12-11 is that academic accomplishments based on graduation percentages of male transfer marketing students do differ, but not significantly so, from those of male native marketing students, while the academic accomplishments of female transfer marketing students based on graduation percentages do differ significantly from those of female native marketing students.

CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Findings

Twelve research questions were considered in this study. A null hypothesis was developed to accompany each research question. Thus the answer to each research question was based on test results of the appropriate null hypothesis. The research questions are now answered by referring to their accompanying null hypothesis test.

Research Question One

Do grade point averages of college freshman and sophomore transfer marketing students differ from those of native marketing students?

The answer to Research Question One was that grade point averages of college freshman and sophomore transfer marketing students differed, but not significantly so, from those of native marketing students.

The cumulative freshman and sophomore grade point average of transfer students was 2.82, compared to 2.67 for native students. An analysis of variance test for Null Hypothesis One suggested, however, that this difference was not significant at the .05 confidence level.

Research Question Two

Do grade point averages of transfer marketing students differ from those of native marketing students for selected lower-level marketing courses?

The answer to Research Question Two was that grade point averages of transfer marketing students differed, but not significantly so, from those of native marketing students for selected lower-level marketing courses.

The grade point average of transfer students was 2.71 for selected lower-level marketing courses, compared to 2.54 for native students. An analysis of variance test for Null Hypothesis Two indicated, however, that this difference was not significant at the .05 confidence level.

Research Question Three

Do grade point averages of college junior and senior transfer marketing students differ from those of native marketing students?

The answer to Research Question Three was that grade point averages of college junior and senior transfer marketing students differed, but not significantly so, from those of native marketing students.

The cumulative junior and senior grade point average of transfer students was 2.57, compared to 2.60 for native students. An analysis of variance test for Null Hypothesis Three suggested, however, that this difference was not significant at the .05 confidence level.

Research Question Four

Do students experience transfer shock after transferring to a baccalaureate marketing curriculum at Ferris State College?

The answer to Research Question Four was that students did experience transfer shock after transferring to a baccalaureate marketing curriculum at Ferris State College.

The grade point average for the first quarter of the junior year for transfer students averaged .25 less than their cumulative freshman and sophomore grade point averages, compared to only .02 less for native students. An analysis of variance test for Null Hypothesis Four indicated that this difference was significant at the .05 confidence level.

Research Question Five

Do grade point averages of transfer marketing students differ from those of native marketing students for selected upper-level marketing courses?

The answer to Research Question Five was that grade point averages of transfer marketing students differed, but not significantly so, from those of native marketing students for selected upper-level marketing courses.

The grade point average of transfer students was 2.39 for selected upper-level marketing courses, compared to 2.46 for native students. An analysis of variance test for

Null Hypothesis Five suggested, however, that this difference was not significant at the .05 confidence level.

Research Question Six

Do grade point averages of students for selected upper-level marketing courses, who took selected lower-level marketing courses at other regionally accredited colleges, differ from those of students who took selected lower-level marketing courses at Ferris State College?

The answer to Research Question Six was that grade point averages of students for selected upper-level marketing courses, who took selected lower-level marketing courses at other regionally accredited colleges differed, but not significantly so, from those of students who took selected lower-level marketing courses at Ferris State College.

The grade point average of transfer students for selected upper-level marketing courses, who took selected lower-level marketing courses at colleges other than Ferris State College, was 2.47 compared to 2.46 for native students who took the lower-level marketing courses at Ferris State College. An analysis of variance test for Null Hypothesis Six indicated, however, that this difference was not significant at the .05 confidence level.

Research Question Seven

Do course withdrawal percentages of transfer marketing students differ from those of native marketing students?

The answer to Research Question Seven was that course withdrawal percentages of transfer marketing students differed, but not significantly so, from those of native marketing students.

Approximately 36 percent of transfer students compared to 30 percent of native students withdrew from no courses, 23 percent of transfer students compared to 14 percent of native students withdrew from one course, 15 percent of transfer students compared to 30 percent of native students withdrew from two courses, and 26 percent of transfer as well as native students withdrew from three or more courses during their junior and senior years at Ferris State College. A Chi Square test for Null Hypothesis Seven suggested, however, that these differences were not significant at the .05 confidence level.

Research Question Eight

Do percentages of attrition of transfer marketing students differ from those of native marketing students?

The answer to Research Question Eight was that attrition percentages of transfer marketing students differed, but not significantly so, from those of native marketing students.

The attrition of transfer students was 21.7 percent compared to 14.0 percent for native students. A Chi Square test for Null Hypothesis Eight indicated, however, that this difference was not significant at the .05 confidence level.

Research Question Nine

Do percentages of attrition, for selected reasons, of transfer marketing students differ from those of native marketing students?

The answer to Research Question Nine was that percentages of attrition for selected reasons, of transfer marketing students differed, but not significantly so, from those of native marketing students.

Selected reasons for attrition included grades, financial, illness, live at home, curriculum change, and unknown. Grades accounted for the major reason for attrition. The remaining reasons were so few that they were grouped together to test for significance. While the percentages of transfer students withdrawing from Ferris State College for each reason were different from those for native students, a Chi Square test of Null Hypothesis Nine suggested, however, that these differences were not significant at the .05 confidence level.

Research Question Ten

Do academic probation percentages of transfer marketing students differ from those of native marketing students?

The answer to Research Question Ten was that academic probation percentages of transfer marketing students differed, but not significantly so, from those of native marketing students.

Approximately 8 percent of native students, compared to 6 percent of transfer students were on academic probation for at least one quarter of their junior and senior years at Ferris State College. A Chi Square test for Null Hypothesis Ten indicated, however, that this difference was not significant at the .05 confidence level.

Research Question Eleven

Do graduation percentages of transfer marketing students differ from those of native marketing students?

The answer to Research Question Eleven was that graduation percentages of transfer marketing students differed, but not significantly so, from those of native marketing students.

Approximately 78 percent of transfer students, compared to 85 percent of native students, graduated. A Chi Square test for Null Hypothesis Eleven suggested, however, that this difference was not significant at the .05 confidence level.

Research Question Twelve

Do academic accomplishments of male and female transfer marketing students differ from those of male and female native marketing students?

Research Question Twelve considers gender for each of the variables which appeared in the preceding eleven research questions. Thus, Research Question Twelve will be numbered 12-1 through 12-11, to coincide with each of the eleven variables considered. No statistical test could be performed on reasons for attrition considered in Research Question 12-9.

Academic accomplishments of transfer marketing students, by gender, differed significantly from those of native marketing students based on the following:

12-1. Cumulative Freshman and Sophomore Grade Point Averages

The cumulative freshman and sophomore grade point average of male transfer students was 2.78, compared to 2.49 for male native students, and 2.87 for female transfer students, compared to 2.90 for female native students.

12-3. Cumulative Junior and Senior Grade Point Averages

The cumulative junior and senior grade point average of male transfer students was 2.58, compared to 2.45 for male native students, and 2.57 for female transfer students, compared to 2.79 for female native students.

12-8. Attrition of Female Juniors and Seniors

The attrition of female transfer students was 28.6 percent, compared to 7.9 percent for female native students.

12-11. Female Seniors Who Graduated by Spring 1986

The graduation of female transfer students was 71.4 percent, compared to 92.1 percent for female native students.

Academic accomplishments of transfer marketing students, by gender, differed, but not significantly so, from those of native marketing students based on the following:

12-2. Grade Point Averages for Four Selected Lower-Level Marketing Courses

The grade point average of male transfer students was 2.68, compared to 2.43 for male native students, and 2.75 for female transfer students, compared to 2.69 for female native students for selected lower-level marketing courses.

12-4. Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages of First Quarter of Junior Year

The grade point average for the first quarter of the junior year for male transfer students averaged .28 less, compared to .12 greater for male native students, and .20 less for female transfer students, compared to .18 less for female native students, than their cumulative freshman and sophomore grade point averages.

12-5. Grade Point Averages for Five Selected Upper-Level Marketing Courses

The grade point average of male transfer students was 2.35, compared to 2.36 for male native students, and 2.45 for female transfer students, compared to 2.59 for female native students for selected upper-level marketing courses.

12-6. Grade Point Averages for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College, and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

The grade point average of male transfer students for selected upper-level marketing courses, who took selected lower-level marketing courses at colleges other than Ferris State College, was 2.42, compared to 2.34 for male native students who took the lower-level marketing courses at Ferris State College. The grade point average of female transfer students for selected upper-level marketing courses, who took selected lower-level marketing courses at colleges other than Ferris State College, was 2.53, compared to 2.59 for female native students who took the lower-level marketing courses at Ferris State College.

12-7. Course Withdrawals by Juniors and Seniors

Approximately 34 percent of male transfer students, compared to 23 percent of male native students, withdrew from no courses; 24 percent of male transfer students, compared to 17 percent of male native students, withdrew

from one course; 15 percent of male transfer students, compared to 27 percent of male native students, withdrew from two courses; and 27 percent of male transfer students, compared to 33 percent of male native students, withdrew from three or more courses.

Approximately 39 percent of female transfer students, compared to 40 percent of female native students, withdrew from no courses; 21 percent of female transfer students, compared to 11 percent of female native students, withdrew from one course; 14 percent of female transfer students, compared to 34 percent of female native students, withdrew from two courses; and 25 percent of female transfer students, compared to 16 percent of female native students, withdrew from three or more courses.

12-8. Attrition of Male Juniors and Seniors

The attrition of male transfer students was 17.1 percent, compared to 18.8 percent for male native students.

12-10. Academic Probation for Any One Quarter of Juniors and Seniors

Approximately 5 percent of male transfer students, compared to 15 percent of male native students, were on academic probation for at least one quarter of their junior and senior years. No statistical test could be performed on female students' probation percentages.

12-11. Male Seniors Who Graduated by Spring 1986

The graduation of male transfer students was 82.9 percent, compared to 79.2 percent for male native students.

Summary of Findings

It is thus noted that, based on tests of significant differences used in this study, there is no significant difference between transfer marketing students and native marketing students when comparing (1) cumulative freshman and sophomore grade point averages in Null Hypothesis One, (2) grade point averages of lower-level marketing courses in Null Hypothesis Two, (3) cumulative junior and senior grade point averages in Null Hypothesis Three, (4) grade point averages of upper-level marketing courses in Null Hypothesis Five, (5) grade point averages of upper-level marketing courses of those who took lower-level marketing courses at two-year institutions, with those who took lower-level marketing courses at Ferris State College in Null Hypothesis Six, (6) course withdrawal percentages in Null Hypothesis Seven, (7) attrition percentages in Null Hypothesis Eight, (8) reasons for attrition in Null Hypothesis Nine, (9) academic probation percentages in Null Hypothesis Ten, and (10) graduation percentages in Null Hypothesis Eleven.

The only significant difference found between transfer and native marketing students was in Null Hypothesis Four, where transfer students suffered a greater decrease in grade point averages for the first quarter of the junior year from that of their cumulative freshman and sophomore grade point averages, than did native students.

The following findings were typical of transfer marketing students' academic achievement:

1. At Two-Year College
 - a. Similar cumulative grade point averages to those of native marketing students
 - b. Similar grade point averages in lower-level marketing courses to those of native marketing students
2. At Ferris State College
 - a. Greater decrease in grades during first quarter of junior year, compared to cumulative freshman and sophomore grades, than that of native marketing students
 - b. Increase in grades to a point ending very similar to those of native marketing students for cumulative grade point averages
 - c. Similar grade point averages in upper-level marketing courses to those of native marketing students
 - d. Similar course withdrawal percentages to those of native marketing students
 - e. Similar attrition percentages to those of native marketing students
 - f. Similar reasons for attrition to those of native marketing students
 - g. Similar academic probation percentages to those of native marketing students

- h. Similar graduation percentages to those of native marketing students

While the only significant difference found between transfer and native (status) marketing students was the decrease in transfer students' grade point average for the first quarter of the junior year compared to that of their cumulative freshman and sophomore years, the following differences appeared that were not significant:

1. Transfer students earned higher cumulative freshman and sophomore grade point averages than did native students.

2. Transfer students earned higher grade point averages in lower-level marketing courses than did native students.

3. Native students earned higher cumulative junior and senior grade point averages than did transfer students.

4. Native students earned higher grade point averages in upper-level marketing courses than did transfer students.

5. Transfer students who took lower-level marketing courses at two-year colleges earned higher grade point averages in upper-level marketing courses than did native students who took lower-level marketing courses at Ferris State College.

6. Native students had higher percentages of course withdrawals than did transfer students during their junior and senior years.

7. Transfer students had higher attrition percentages than did native students during their junior or senior years.

8. Native students withdrew from college for poor grades in greater percentages during their junior or senior years than did transfer students.

9. Transfer students withdrew from college for financial reasons in greater percentages during their junior or senior years than did native students.

10. Native students had higher academic probation percentages during their junior and senior years than did transfer students.

11. Native students had higher graduation percentages than did transfer students.

It is also noted that, by tests of significant differences used in this study, there is a significant difference between transfer students and native students, based on gender, in (1) cumulative freshman and sophomore grade point averages, (2) cumulative junior and senior grade point averages, (3) attrition percentages of female students, and (4) graduation percentages of female students.

The following findings were thus typical of male-female students' academic achievement:

1. Cumulative Freshman and Sophomore Grade Point Averages

a. Male transfer students earned higher cumulative freshman and sophomore grade point averages than did male native students.

b. Female native students earned higher cumulative freshman and sophomore grade point averages than did female transfer students.

2. Cumulative Junior and Senior Grade Point Averages

a. Male transfer students earned higher cumulative junior and senior grade point averages than did male native students.

b. Female native students earned higher cumulative junior and senior grade point averages than did female transfer students.

3. Attrition Percentages of Female Students

Female transfer students had higher attrition percentages than did female native students.

4. Graduation Percentages of Female Students

Female native students had higher graduation percentages than did female transfer students.

Differences that were not significant were found between transfer and native marketing students, based on gender, in (1) grade point averages in lower-level marketing

courses, (2) cumulative grade point average for first two years of college compared to that of first quarter of junior year, (3) grade point averages in upper-level marketing courses, (4) grade point averages in upper-level marketing courses of those who took lower-level marketing courses at other colleges, compared with those who took lower-level marketing courses at Ferris State College, (5) course withdrawal percentages, (6) attrition percentages of male students, (7) academic probation percentages of male students, and (8) graduation percentages of male students.

These eight differences are as follows:

1. Grade Point Averages in Lower-Level Marketing Courses
 - a. Male transfer students earned higher grade point averages in lower-level marketing courses than did male native students.
 - b. Female transfer students earned higher grade point averages in lower-level marketing courses than did female native students.
2. Cumulative Grade Point Average for First Two Years of College Compared to That of First Quarter of Junior Year.
 - a. Male transfer students' grade point averages for the first quarter of the junior year were less than were their cumulative freshman and sophomore grade point averages, while male native students' first quarter

junior grades were higher than were their cumulative freshman and sophomore grade point averages.

- b. Female transfer students' grade point averages for the first quarter of the junior year decreased more than did those of female native students from their cumulative freshman and sophomore grade point averages.

3. Grade Point Averages in Upper-Level Marketing Courses

- a. Male native students earned higher grade point averages in upper-level marketing courses than did male transfer students.
- b. Female native students earned higher grade point averages in upper-level marketing courses than did female transfer students.

4. Grade Point Averages in Upper-Level Marketing Courses of Those Who Took Lower-Level Marketing Courses at Other Colleges Compared With Those Who Took Lower-Level Marketing Courses at Ferris State College

- a. Male transfer students who took lower-level marketing courses at other colleges earned higher grade point averages in upper-level marketing courses than did male native students who took lower-level marketing courses at Ferris State College.

- b. Female native students who took lower-level marketing courses at Ferris State College earned higher grade point averages in upper-level marketing courses than did female transfer students who took lower-level marketing courses at other colleges.

5. Course Withdrawal Percentages

- a. Male native students had higher course withdrawal percentages than did male transfer students.
- b. Female transfer students had higher course withdrawal percentages than did female native students.

6. Attrition Percentages of Male Students

Male native students had higher attrition percentages than did male transfer students.

7. Academic Probation Percentages of Male Students

Male native students had higher probation percentages than did male transfer students.

8. Graduation Percentages of Male Students

Male transfer students had higher graduation percentages than did male native students.

Conclusions

The general conclusion resulting from this study is that it matters little where students enroll for their first two years of college prior to enrolling in a baccalaureate marketing curriculum at Ferris State College for their last two years of study. This general conclusion is supported by the following specific conclusions:

1. Since transfer students and native students earn approximately the same cumulative grade point average (GPA) during their college freshman and sophomore years it is concluded that (a) transfer and native students have similar mental abilities, motivation and interests, and (b) two-year college course requirements and grading standards are similar to those at Ferris State College (FSC).

2. Since transfer students typically take lower-level marketing courses at two-year colleges and native students take them during their last two years at FSC, coupled with the fact that transfer and native students earn approximately the same grades in these classes, it is concluded that academic and professional motivation, and the preparation and quality of faculty and students at two-year colleges are similar to those at FSC in like courses.

3. Since transfer students and native students earn approximately the same cumulative GPA's during their college junior and senior years it is concluded that (a) again, transfer and native students have similar mental abilities, emotions and interests, (b) transfer students eventually

make adequate adjustments from two-year institutions to FSC, and (c) transfer students choose curricula in accordance with their interests and abilities.

4. Since there is a significant decrease from the cumulative GPA for the first two years of college to that of the first quarter of the junior year between transfer and native students, it is concluded that transfer students have difficulty in the initial transition to course requirements, grading systems, class sizes, personal adjustments, and/or other variables.

5. Since transfer students and native students earn approximately the same grades in upper-level marketing courses whether lower-level marketing courses are taken at two-year colleges or at FSC, it is concluded that (a) two-year colleges provide similar background preparation in general education and marketing as does FSC, (b) course prerequisites are being met by two-year colleges or prerequisites are not as important as thought to be by marketing educators at FSC, and (c) transfer students and native students can apply principles learned in lower-level marketing courses to upper-level courses similarly.

6. Since transfer students and native students withdraw from Ferris State College, from courses at FSC, and graduate from FSC by approximately the same percentages, it is concluded that transfer and native students have similar personal problems, abilities, interests, satisfaction, motivation, perseverance, and/or other characteristics.

7. Since transfer students withdraw from FSC for approximately the same reasons as do native students, it is concluded that transfer and native students (a) are equally prepared, adjusted and motivated, and (b) have similar academic and personal experiences, and problems.

8. Since the percentage of transfer students on academic probation for at least one quarter during their junior and senior years at FSC is approximately equal to that of native students, it is concluded that (a) transfer and native students have similar ability, personal problems and prior academic preparation and accomplishments, and (b) the foregoing conclusions show uniformity of grading and administration of probation policy at FSC.

9. Since significant differences were found between transfer students and native students, based on gender, with (a) female native students earning higher cumulative GPA's than did female transfer students during their college freshman and sophomore years as well as during their college junior and senior years, (b) male transfer students earning higher cumulative GPA's than did male native students during their college freshman and sophomore years as well as during their college junior and senior years, (c) female transfer students having higher attrition percentages than did female native students, and (d) female native students having higher graduation percentages than did female transfer students, it is concluded that gender must

also be considered in determining academic accomplishments of transfer and native students.

10. Since female transfer students have higher percentages of attrition and lower percentages of graduation at FSC than do female native students, male transfer students, and male native students, it is concluded that female transfer students have lower academic achievement than do the other groups studied.

Recommendations

This study found the academic achievement of students who transfer to a marketing curriculum at Ferris State College, after graduating from a regionally accredited two-year institution, generally to compare favorably with the achievement of marketing students who enroll at Ferris State College as freshmen.

Ferris State College thus should continue to

1. Accept courses from regionally accredited two-year colleges as the equivalent of like courses taught at Ferris State College.

2. Accept courses from regionally accredited two-year colleges that are usually taught by Ferris State College at the junior level.

3. Implement the various two-plus-two programs.

4. Accept the student's associate degree from regionally accredited two-year colleges and admit the student into a two-plus-two program at Ferris State College.

5. Honor the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) agreement.

6. Implement student recruitment activities at regionally accredited two-year institutions.

The major problem found by this study was the severe difference in cumulative freshman and sophomore grade point averages and grade point averages of the first quarter of the junior year (transfer shock) experienced by students when transferring from two-year institutions to Ferris State College.

Possible solutions to this critical problem may be found in the concerns associated with transferring from a two-year to a four-year college discussed in Chapter Two of this study. The seven following solutions seem most pertinent to the problem and should be pursued at Ferris State College:

1. Establish an articulation office
2. Provide desirable housing for transfer students
3. Structure special orientation programs for transfer students as well as for Ferris faculty
4. Provide for greater engagement in student activities for transfer students
5. Furnish proper assistance for transfer students' financial difficulties
6. Be certain transfer students are receiving proper academic advising

7. Provide quality communication to two-year institutions listing the requirements of Ferris State College

Suggestions for Additional Research

Following are several areas suggested for additional research:

1. A replication of this study should be undertaken for additional time segments and the results compared.

2. A similar study should be conducted for all other School of Business curricula, in addition to marketing, at Ferris State College for comparison purposes.

3. This study should be replicated for all other schools at Ferris State College, in addition to the School of Business, and the results compared.

4. A study should be completed which would address student demographic factors, in addition to gender, including the following:

- a. Age
- b. Income
- c. Marital status
- d. Dependents
- e. Geographic region
- f. Employment
- g. Race
- h. Benefit sought
- i. Part time or full time status

5. A comparative study should be pursued which would classify two-year colleges on the following bases:

- a. Location (rural or urban)
- b. Enrollment (size and racial mix)
- c. Faculty (experience, academic qualifications, and part time or full time)

6. A study should be conducted to determine the reasons for female transfer students' lower academic achievement compared to those of female native, male transfer, and male native students in marketing curricula at Ferris State College.

7. A study should be conducted exploring solutions to the problem of lower academic achievement of female transfer students compared to that of female native, male transfer, and male native students enrolled in marketing curricula at Ferris State College.

Reflections

Ferris State College continues to provide opportunities for students who have earned an associate degree to continue their education. The present study has demonstrated the homogeneity of two-year college programs with marketing curricula in the School of Business. It is thus possible for students to transfer to Ferris State College and successfully complete a baccalaureate degree in marketing.

APPENDICES

APPENDIX A
FERRIS STATE COLLEGE

APPENDIX A

FERRIS STATE COLLEGE

Historical information on Ferris State College was found in the Ferris State College School Bulletin¹ as well as in the writings of Deupree,² Junker,³ Nott⁴ and Nye.⁵

Ferris State College was founded as a unique institution in Big Rapids, a city of approximately 14,000 in the vacation-recreation area of west central Michigan. It was, and continues to be, unique in its endeavor to prepare students for positions requiring career oriented or professional education while, at the same time, stressing the personal development of each individual. Thus, a student can choose an academic program designed to lead to a job upon graduation but also be provided general education instruction in appropriate areas such as communication, the humanities, and the arts. This dual commitment helped to create an institution with many diverse elements, yet molded these together by the like principles, goals and backgrounds they shared.

Ferris State College was named for its founder, Woodbridge N. Ferris, who, in 1884, started the Big Rapids Industrial School. Ferris was an educator and a distinguished politician, having served two terms as Michigan's

governor as well as being elected to the United States Senate.

W.N. Ferris was also an extraordinary teacher with ideas that were far ahead of their time. These ideas were to become a part of the continued Ferris philosophy. The Ferris School Bulletin lists these beliefs:

1. Higher education should be available to anyone willing to profit from it.
2. Students should be counseled and motivated in such a way as to help them to make the most of their abilities.
3. While a college should be easy to get into, there should be no compromise on the quality of work a student is expected to perform.⁶

The above beliefs made the school one of the first institutions in the United States to offer career preparatory collegiate training.

Ferris opened the Big Rapids Industrial School with an enrollment of fifteen pupils in two rented rooms above a Big Rapids bank. The name was soon changed to the Ferris Industrial School. As the enrollment grew additional space was rented until the first building was built on the southern edge of Big Rapids in 1894.

W. N. Ferris combined his strong belief in individual potentials with his own common sense and experience in dealing with youth to form an unusually effective personalized system of education and vocational guidance.

Woodbridge N. Ferris and the school he founded were products of the reflections of his time. He saw education,

as his era did, as something of both social and individual concern. He placed great stress on individual responsibility. Thus, his school originally paid little attention to formal "credits." A student's success or failure was based less on credits than on his/her achievement. He believed that education should have been practical, moral, and intellectual. To Ferris, proper education met one's complete personal, social, and economic needs.

The founder ran his school in his own way and on his own principles. His aim was to prepare students for the ordinary, everyday duties of life so that they could make a living. He wanted his school to be in close contact with the needs of society. Thus, when there was a market for telegraphers, he started a telegraphy program. When the United States Mail Service had positions available, he offered a course to prepare aspirants for the examinations. The Pharmacy Program is one of the best known examples of Ferris' ability to see and seize an opportunity. When a young person asked him, in 1893, for help in preparing for the State Boards (and passed them) Ferris organized a course of study in pharmacy.

Since he was a great believer in practical training he provided the Business Department with an actual freight office, a commercial exchange, a wholesale office, a commission office, and a model bank.

The Ferris curriculum, therefore, showed a strange configuration--Telegraphy and Latin; Music and Shorthand;

Elocution and Penmanship--which must have frustrated officials of more conventional schools.

Ferris was an effective salesman. He skillfully continued to form his curriculum according to society's needs by following the market for saleable skills, dropping courses when the market decreased, adding and expanding courses as it expanded. For example, after developing the telegraphy program he expanded it to include repair of instruments, basic electrical theory, electrical wiring, and skills in other railroad communication devices. After the market for telegraphers began to shrink, so did the courses!

This unusual philosophy apparently worked, for by 1898 his Annual Report listed a staff of eleven teachers, 1,200 students, a library of 600 volumes, buildings valued at \$35,000, an annual budget of \$12,000, and indebtedness of only \$5,500. In 1902, the school had an enrollment of 2,840 students, showed greater profits, and had practically no debt. The school's name was changed to Ferris Institute around 1900.

Before Mr. Ferris went to Washington as United States Senator, he withdrew from active direction of the school and sold almost all of his stock in 1923.

Ferris Institute experienced serious financial difficulties during the depression but managed to remain in existence. After the depression the school again made progress and continued to prosper until World War II. During the war years enrollment suffered a serious decline

to a low of 48 students in 1943-44. After the war, however, returning veterans helped enrollment to climb to 940 students.

The college continued to operate as a private institution until 1949, when it was offered to the State of Michigan as a gift. At that time Ferris enjoyed an enrollment of 1,100, had assets of \$1,000,000, and was debt free. Public Act 114-49 of the Michigan Public Acts of 1949 provided that Ferris Institute become a state institution effective July 1, 1950.

The intervention of the "Great Fire of February 21, 1950" accelerated the transition from private to state ownership. The governor-appointed Board of Control met unofficially on March 4, 1950 and concerned itself with plans for rebuilding.

A massive construction and land acquisition program developed to transform the less than twenty-acre, one permanent building campus to a more than 650 acre expanse, with more than ninety architecturally homogeneous structures. The school's name was changed to Ferris State College in 1963.

Academic programs were also in need of refinement. Consistent with the ideas, aims and purposes of its founder, the following goals were developed as listed in the Ferris School Bulletin:

1. To meet the needs of the people of Michigan for an institution providing specific curricula designed to prepare individuals for positions requiring

career-oriented or professional education, yet alert to the total personal development of each individual.

2. Create an economy and flexibility of operation not possible in educational institutions of less diversified offerings; but, at the same time, to maintain integrity as a unified institution.
3. To permit and encourage students to accelerate the completion of their educational programs in appropriate curricula.
4. To provide an opportunity for all graduates of community and junior colleges, and of other colleges and universities, including graduates of technical and other career-oriented or professional curricula, to continue their education.⁷

In order to accomplish these goals, the School

Bulletin recognizes the following objectives:

1. To conduct a strong general and liberal studies program which would:
 - a. Provide the general education core for all programs of a postsecondary and collegiate level, the instructional offering for all pre-professional and transfer programs, and the major and minor sequences in selected teacher education programs.
 - b. Provide an accelerated program for high school completion and educational upgrading for mature young people and adults.
 - c. Provide for curricula in public service and other selected career-oriented areas.
 - d. Provide students an opportunity to complete two years of pre-professional or general study in preparation for transfer to a baccalaureate or professional program in completion of an educational goal.

2. To conduct comprehensive programs of varied length which prepared students to enter professions and occupations related to the general field of business; and to provide such service to business and industry as the College could appropriately render.
3. To conduct comprehensive programs of education in pharmacy, including such services to the profession as the College may appropriately render.
4. To conduct extensive industrial and technical educational programs in selected vocational and occupational areas.
 - a. Provide for trade-industrial-technical curricula of a post-secondary and collegiate nature, applicable to the needs of the individual and the changing needs of our state and national economy, of varied length from one year through the baccalaureate degree.
 - b. Provide such educational services to other institutions, and to the statewide program of vocational education, as the resources of the institution permitted.
 - c. Provide for refresher, upgrading and retraining experiences through workshops, clinics, seminars, and other appropriate offerings.
5. Provide for curricula of varied length from one year through the baccalaureate degree designed to prepare individuals to enter health-related occupations; and to provide for upgrading, retraining, refresher services to those gainfully employed in health careers via conferences, workshops, seminars, and other educational services.
6. To conduct programs in teacher education and learning resources in selected areas appropriate to the purposes and resources of the College, and to provide for service programs to schools, school systems and the state as dictated by demonstrated need.

7. To conduct comprehensive programs of education in optometry, including such services to the profession and the state as the College may appropriately render.
8. To conduct a comprehensive program of student personnel services to aid the student's personal growth within the educational setting.
9. To conduct community educational and service programs, and such off-campus educational programs and activities as were within the resources of the institution, to meet demonstrated needs.⁸

Evidence of the accomplishment of these academic objectives is the current offering of over one hundred-thirty educational programs. These curricula are available through the seven academic divisions of (1) School of Allied Health, (2) School of Arts and Sciences, (3) School of Business, (4) School of Education, (5) School of Pharmacy, (6) School of Technology, and (7) College of Optometry. These programs lead to associate, bachelor, and master degrees as well as a Doctor of Optometry degree.

The history of the School of Business at Ferris State College dates back to 1884 when it was one of the original departments of the Big Rapids Industrial School. In the following century the school grew from instruction for bookkeepers, stenographers, and telegraphers to offering instruction in accounting, computer information systems, management, marketing, and office administration.

In harmony with the Ferris philosophy, the School of Business plans its programs to prepare the student for the real employment needs of the business world. The student can

choose from among more than forty programs and options requiring two, four, or five years of study. The programs are constantly reviewed and evaluated, to be certain they meet the needs of the student and the changing business world.

The objectives of the School of Business are summarized as follows:

1. To provide basic training in business and related educational subjects.
2. To enable the student to understand the business environment, to assume additional responsibilities, and to qualify for promotional opportunities.
3. To inspire the student to acquire further knowledge not only in the chosen field of activity but also in general education.
4. To instill in the student high ethical standards of conduct in personal, business, and community relationships.
5. To encourage the student in the development of better appreciation of good literature, art, music, science, and opportunities for wise use of leisure time.
6. To awaken the student to a full realization of personal responsibilities and duties as a citizen of the community, state, and nation.⁹

The program leading to the accomplishments of these objectives embraces the total school life of the student, including (1) the classroom, (2) student government, (3) convocations, (4) student publications, (5) religious organizations, (6) intercollegiate and intramural athletics,

(7) instrumental and vocal music, (8) testing and guidance counseling, and (9) student professional, social, and fraternal organizations.

Appendix Notes

¹Ferris State College, School Bulletin, (Big Rapids, MI.: Ferris State College, 1984), 57: pp. 6, 16-17, 91.

²Joseph E. Deupree, A Century of Opportunity: A Centennial History of Ferris State College (Big Rapids: Ferris State College, 1982), pp. 16-17, 59-60, 74-77.

³Elmer S. Junker, "History of Ferris State College" (A Report for History of Higher Education in the U.S. class, Michigan State University, 1967), pp. 5-6.

⁴Goldie Tilman Nott, The Establishment and Growth of Ferris State Institute, 1984-1960 (Big Rapids: By the Author, University of Michigan, 1962), pp. 34-37.

⁵Russel B. Nye, Ferris Comes of Age: The Years of Transition 1946-1963 (Big Rapids: The Centennial Task Force, 1983), pp. 7-11, 20, 36, 45-46, 48.

⁶Ferris State College, School Bulletin, p. 6.

⁷Ibid., p. 16.

⁸Ibid., pp. 16-17.

⁹Ibid., p. 91.

APPENDIX B
TRANSFER CURRICULA

APPENDIX B

TRANSFER CURRICULA

Effective Fall 1983

10/84

FERRIS STATE COLLEGE DEPARTMENT OF ACCOUNTANCY CHECKLIST FOR TRANSFER STUDENTS WITH ASSOCIATE DEGREES

For students possessing the associate degree granted by a regionally, accredited college. Students having associate degree credit for any of the courses listed below must select an equal number of elective hours from General Education offerings as identified in the four year Accountancy program.

<u>B. S. IN BUSINESS (ACCOUNTANCY)</u>		<u>MASTER OF ACCOUNTANCY</u>
<u>THIRD YEAR</u>	<u>FOURTH YEAR</u>	<u>FIFTH YEAR</u>
<u>First Quarter</u>	<u>First Quarter</u>	<u>First Quarter</u>
ACT 211 or (Note 3)		
ACT 312 4	ACT 415 4	ACT 553 4
ACT 321 4	ACT 431 4	ACT 525 4
FIN 230 4	ACT 461 4	ACT 538 4
STT 321 4	LAW 323 4	*ACT 4
MGT 262 3		
19	16	16
<u>Second Quarter</u>	<u>Second Quarter</u>	<u>Second Quarter</u>
ACT 313 4	ACT 416 4	ACT 548 4
ACT 322 4	ACT 441 4	ACT 558 4
LAW 321 4	ACT 451 4	*ACT 4
FIN 322 4	Elective 4	*ACT 4
16	(Note 3) 16	16
<u>Third Quarter</u>	<u>Third Quarter</u>	<u>Third Quarter</u>
ACT 314 4	ACT 417 4	ACT 518 4
ACT 323 4	ACT 452 4	ACT 528 4
LAW 322 3	ACT 442 4	*ACT 4
MKT 321 4	Elective 4	*ACT 4
ECN 306 4		
19	16	16

NOTES:

1. A minimum of 102 quarter hours beyond the associate degree are required for the B.S. in Business (Accountancy) degree.
2. Students interested in the Master of Accountancy degree must take STT 323 and MGT 380, and apply for candidacy during their third or fourth years (between 100 and 200 credit hours).
3. Students needing ACT 211 will have only one elective in the fourth year.

*Two electives must be 500 level ACT courses. With departmental approval, students may elect three 400-500 level non-accounting courses.

7/87

EFFECTIVE DATE - FALL 1987-88

Name of Student _____ Date _____
 Name of Advisor _____ Expected Date of Graduation _____

Suggested Curriculum for B.S. Degree in Business (Computer Information Systems)
 Two-Year Transfer Program

Directions for Completion

1. Mark in the left column:
 / Courses completed by credit earned at Ferris
 /tr Courses completed by transfer of credits
 x Course has been waived
2. Mark in the right:
 / Courses you are now taking
3. Circle the name of the courses for which you are now preregistering.

You are expected to take the courses in the order in which they are listed on this checklist if such courses are open.

Third Year

First Quarter

CIS 201 - Structured Prog. Design 4 _____
 CIS 230 - Application Systems 4 _____
 MGT 261 - Fundamentals of Management 3 _____
 ACT 321 - Management Accounting I 4 _____
 15 _____

Second Quarter

ACT 322 - Management Accounting II 4 _____
 MGT 262 - Fund. of Organ. Behavior 3 _____
 CIS 301 - PL/1 Programming 4 _____
 Q-M 321 - Business Statistics I 4 _____
 D-P 205 - Intro. to Microcomputers 4 _____
 19 _____

Third Quarter

Q-M 335 - Management Science I or 4 _____
 Q-M 345 - Simulation in Business 4 _____
 CIS 240 - Computer Operating Systems 4 _____
 CIS 300 - Data Base Concepts & Fac. 4 _____
 CIS 310 - Assembler Language I 4 _____
 16 _____

Fourth Year

First Quarter

O-A 210 - Business Communications 2 4 _____
 CIS 330 - Systems Analysis 4 _____
 MKT 321 - Principles of Marketing 4 _____
 CIS 320 - COBOL 4 _____
 16 _____

Second Quarter

FIN 322 - Financial Management 4 _____
 CIS 430 - Systems Design 4 _____
 LAW 321 - Contracts & Sales 4 _____
 CIS 420 - COBOL Applications 4 _____
 16 _____

Third Quarter

CIS 440 - Systems Implementation 4 _____
 CIS 425 - Online Programming 4 _____
 CIS 480 - Adv. Systems Design & Imp. 4 _____
 *Electives 6 _____
 18 _____

*Suggested Electives:

CIS 220 - Prog. & Sys. Tech. Using RPG II
 CIS 410 - Computer Programming II
 CIS 400 - Data Base Implementation
 D-P 204 - BASIC Programming
 D-P 302 - FORTRAN Programming
 D-P 309 - PASCAL Programming
 Q-M 322 - Business Statistics II
 Q-M 351 - Quality Control 1
 Q-M 451 - Quality Control 2
 MGT 448 - Strategy Formulation
 MGT 465 - Business and Government
 ACT 322 - Management Accounting II
 ACT 323 - Management Accounting III
 O-A 252 - Principles of Office Admin.
 SPE 221 - Group Discussion
 SPE 232 - Persuasive Speaking

Transfer Hours _____
 Ferris Hours (to date) _____
TOTAL _____

EFFECTIVE FALL 1987-88

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____

Date _____

B.S. IN BUSINESS (BUSINESS ADMINISTRATION)

TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checksheet.

THIRD YEAR FOURTH YEAR

LEGEND:

- / Credits earned at Ferris.
 /tr Credits earned by transfer.
 X Courses that have been waived
 ✓ Courses now being taken.

First Quarter

ACT 201 Prin. of Fin. Acct. 1 4
 LAW 221 Elem. Business Law OR
 LAW 321 Conti. and Sales 4
 MGT 301 Applied Management 4
 D-P 202 Surv. of Data Proc. 4
 16

First Quarter

Elective 4
 FIN 322 Financial Mgmt. 1 4
 MGT 373 Personnel Mgmt. 4
 Business Elective 4
 16

Second Quarter

MGT 302 Dyn. of Org. Behav. 4
 ACT 202 Prin. of Fin. Acct. 2 4
 Law Elective 3
 D-P 205 Micro. Prog. & Appl. 4
 Elective 3
 18

Second Quarter

Q-M 321 Business Statistics 1 4
 O-A 210 Business Comm. 2 4
 MGT 448 Strategy Formulation
 (check prerequisites) 4
 Electives 6
 18

Third Quarter

ACT 203 Prin. of Mgt. Acct. OR
 FIN 230 Fin. Mkt. & Inst. 4
 MGT 371 Prod./Oper. Mgmt. 4
 I-B 210 Int'l. Business Syst. 4
 MKT 321 Prin. of Marketing 4
 16

Third Quarter

Q-M 322 Business Statistics 2 4
 MGT 465 Business & Gov't. 4
 MGT 490 Business Policy
 (Prerequisite: MGT 448) 4
 Elective 4
 16

TRANSFER STUDENTS: If you do not have transfer credit for the following courses, you must take them where electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. All electives must be selected in conference with an advisor. If possible, students should also take PSY 221, SOC 221, and SPC 105 or SPC 121.

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____
 Date _____

EFFECTIVE FALL 1985

B.S. IN BUSINESS (BUSINESS ECONOMICS)

TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checklist.

THIRD YEAR		FOURTH YEAR	
First Quarter		First Quarter	
ACT 201 Prin. of Fin. Acct. 1	4	Q-M 322 Bus. Statistics 2	4
LAW 221 Elem. Business Law	4	FIN 322 Financial Mgmt. 1	4
MGT 261 Fund. of Management 3	4	MGT 373 Personnel Mgmt.	4
Elective	13	MGT 380 Bus. Forecasting	4
			16

LEGEND:

- / Credits earned at Ferris.
 /tr Credits earned by transfer.
 X Courses that have been waived.
 ✓ Courses now being taken.

Second Quarter		Second Quarter	
ACT 202 Prin. of Fin. Acct. 2	4	D-P 202 Surv. of Data Proc.	4
Major	4	O-A 210 Bus. Comm. 2	4
MGT 262 Fund. of Org. Behav. 3	4	MGT 448 Strategy Formulation	4
Electives	6	(check prerequisites)	4
	17	Major	8
			20

Third Quarter

ACT 203 Prin. of Mgt. Acct.	4
OR FIN 230 Fin. Mkts. & Inst.	4
MGT 371 Prod./Oper. Mgmt.	4
MKT 321 Prin. of Marketing	4
Q-M 321 Bus. Statistics 1	4
	16

Third Quarter

MGT 465 Bus. and Gov't.	4
MGT 490 Business Policy	4
(Prerequisite MGT 448)	4
Major	8
	16

TRANSFER STUDENTS: If you do not have credit for the following courses, you must take them: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. These may be taken where electives are indicated. If possible, students should also take PSY 221, SOC 221, and SPC 105 or SPC 121.

BUS 122 should not be taken as an elective.

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____ EFFECTIVE FALL 1983

Date _____

B.S. IN BUSINESS (FINANCE)

TWO-YEAR TRANSFER PROGRAM

THIRD YEAR

First Quarter

ACT 201 Prin. of Fin. Acct. 1 4
 FIN 230 Fin. Mkt. and Inst. 4
 O-A 210 Bus. Comm. 2 4
 FIN 300 Math. of Finance 4
 16

Second Quarter

ACT 202 Prin. of Fin. Acct. 2 4
 MGT 261 Fund. of Management 3
 Q-M 321 Business Statistics I 4
 D-P 202 Survey of Data Proc. 4
 Elective 3
 18

Third Quarter

D-P 203 Survey of Systems 4
 MKT 321 Prin. of Marketing 4
 MGT 262 Fund. of Org. Behav. 3
 FIN 322 Financial Mgmt. I 4
 Elective 3
 18

FOURTH YEAR

First Quarter

ECN 321 Money and Banking 4
 ACT 211 Fin. Acct. I 4
 FIN 323 Financial Mgmt. 2 4
 FIN 431 Invest. Principles 4
 16

Second Quarter

ACT 312 Fin. Acct. 2 4
 FIN 434 Portfolio Management 4
 FIN 465 Problems in Finance 4
 MGT 465 Bus. & Government 4
 16

Third Quarter

FIN 475 Seminar in Finance 4
 MGT 490 Business Policy Elective 4
 Finance/Major Elective 4
 16

LEGEND:

/ Credits earned at Ferris.
 /tr Credits earned by transfer.
 X Credits that have been
 waived.
 Courses now being taken.

TRANSFER STUDENTS: If you do not have credit for the following courses, you must take them where electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. All electives must be selected in conference with an advisor. Students who have previously met these course requirements shall select elective courses from the Finance/Major

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____
 Date _____

EFFECTIVE FALL 1985

B.S. IN BUSINESS (INTERNATIONAL BUSINESS)

TWO-YEAR TRANSFER PROGRAM

Insofar as possible, student are to take the courses in the order in which they are listed on this checklist.

	THIRD YEAR		FOURTH YEAR	
	First Quarter		First Quarter	
LEGEND:				
/ Credits earned at Ferris				
/tr Credits earned by transfer				
X Courses that have been waived				
✓ Courses now being taken				
	Major		FIN 322 Financial Mgmt. I	4
	O-A 210 Bus. Comm. 2	4	MGT 371 Prod./Oper. Mgmt.	4
	D-P 202 Surv. of Data Proc.	4	Major	8
	ACT 201 Prin. of Fin. Acct. I	4		16
		16		
	Second Quarter		Second Quarter	
	Major		Major	7
	ACT 202 Prin. of Fin. Acct. 2	4	MGT 448 Strategy Formulation	4
	Q-M 321 Bus. Statistics I	4	(check prerequisites)	4
	MGT 261 Fund. of Management	3	MGT 465 Bus. and Gov't.	4
	MKT 321 Prin. of Marketing	4		13
		19		
	Third Quarter		Third Quarter	
	Major		Major	4
	MGT 262 Fund. of Org. Behav.	3	MGT 490 Business Policy	4
	Q-M 322 Bus. Statistics 2	4	(MGT 448 prerequisite)	4
	LAW 321 Contracts and Sales	4	Electives	8
		19		16

TRANSFER STUDENTS: If you do not have credit for the following courses, you must take them where electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. All electives must be selected in conference with an advisor. If possible, students should also complete PSY 221, SOC 221, and SPC 105 or SPC 121.

Students must complete at least one year of a foreign language and D-P 205, Microcomputer Programming and Applications.

EFFECTIVE FALL 1983

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____

Date _____

B.S. IN BUSINESS (QUANTITATIVE)

TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checklist.

THIRD YEAR

FOURTH YEAR

First Quarter

First Quarter

ACT 201 Prin. of Fin. Acct. 1 4
 Major 4
 MGT 261 Fund. of Management 3
 Elective 4
 15

D-P 202 Surv. of Data Proc. 4
 FIN 322 Financial Mgmt. 4
 Major 9
 17

LEGEND:

/ Credits earned at Ferris.
 /tr Credits earned by transfer.
 x Courses that have been waived.
 ✓ Courses now being taken.

Second Quarter

Second Quarter

ACT 202 Prin. of Fin. Acct. 2 4
 Major 4
 MGT 262 Fund. of Org. Behav. 3
 Electives 6
 17

Q-M 321 Bus. Statistics 1 4
 O-A 210 Bus. Comm. 2 4
 MGT 448 Strategy Formul. (check prerequisites) 4
 Major 5
 17

Third Quarter

Third Quarter

ACT 203 Prin. of Mgt. Acct. 4
 OR FIN 230 Fin. Mkt. & Inst. 4
 MGT 371 Prod./Oper./Mgmt. 4
 MKT 321 Prin. of Marketing 4
 Major 5
 17

Q-M 322 Bus. Statistics 2 4
 MGT 465 Bus. & Gov't. 4
 MGT 490 Business Policy (MGT 448 prerequisite) 4
 Major 5
 17

TRANSFER STUDENTS: If you do not have credit for the following courses, you must take them where electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. All electives must be selected in conference with an advisor. If possible, students should also take PSY 221, SOC 221, and SPC 105 or SPE 121.

NOTE: 100 hours are required for graduation.

EFFECTIVE FALL 1987-88

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____

Date _____

B.S. IN BUSINESS (MANAGEMENT)
TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checklist.

THIRD YEAR FOURTH YEAR

LEGEND:

- / Credits earned at Ferris.
/tr Credits earned by transfer.
X Courses that have been waived.
Courses now being taken.

First Quarter

MGT 301 Applied Management 4
ACT 201 Prin. of Fin. Act. 1 4
LAW 221 Elem. Business Law 4
D-P 202 Surv. of Data Proc. 4
16

Second Quarter

MGT 302 Dyn. of Org. Behav. 4
ACT 202 Prin. of Fin. Act. 2 4
I-B 210 Int'l. Business Syst. 4
Elective 3
D-P 205 Micro. Prog. & Appl. 4
19

First Quarter

MGT 380 Bus. Forecasting OR
Q-M 335 Int. to Mgt. Sci. 4
FIN 322 Financial Mgmt. 1 4
MGT 373 Personnel Mgmt. 4
Q-M 322 Bus. Statistics 2 4
16

Second Quarter

O-A 210 Business Comm. 2 4
MGT 448 Strategy Form. 4
MGT 447 Bus. Env. Soc. Resp. 4
Elective 4
MGT 390 Mgt. Dec. Mak. Lab 1
17

Third Quarter

ACT 203 Prin. of Mgt. Acct. OR
FIN 230 Fin. Mkt. & Inst. 4
MGT 371 Prod./Oper. Mgmt. 4
MKT 321 Prin. of Marketing 4
Q-M 321 Bus. Statistics 2 4
16

Third Quarter

LAW 421 Labor Law & Legis. 4
MGT 445 Business & Gov't. 4
MGT 490 Business Policy
(Prerequisite: MGT 448) 4
Elective 4
16

TRANSFER STUDENTS: If you do not have transfer credit for the following courses, you must take them where electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. All electives must be selected in conference with an advisor. If possible, students should also complete PSY 221, SOC 221, and SPC 105 or SPC 121.

NOTE: 100 hours are required for graduation.

EFFECTIVE FALL 1984

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____

Date _____

B.S. IN BUSINESS (PERSONNEL MANAGEMENT/INDUSTRIAL RELATIONS)

TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checklist.

FOURTH YEAR

THIRD YEAR

LEGEND:

- / Credits earned at Ferris.
- /tr Credits earned by transfer.
- X Courses that have been waived.
- Courses now being taken.

First Quarter

ACT 201 Prin. of Fin. Acct. 1 4
 INS 131 Prin. of Insurance 4
 MGT 261 Fund. of Management 3
 D-P 202 Surv. of Data Proc. 13

First Quarter

D-P 205 Micro. Prog. & Appl. 4
 FIN 322 Financial Mgmt. 1 4
 MGT 373 Personnel Mgmt. 4
 LAW 421 Labor Law & Legis. 16

Second Quarter

ACT 202 Prin. of Fin. Acct. 2 4
 MGT 305 Super. & Leadership 4
 MGT 262 Fund. of Org. Behav. 3
 Electives 7 18

Second Quarter

Q-M 321 Business Statistics 1 4
 MGT 448 Strategy Formulation 4
 MGT 374 Wage & Sal. Admin. 4
 Major Elective 4 16

Third Quarter

ACT 203 Prin. of Mgt. Acct.
 OR FIN 230 Fin. Mkt. & Inst. 4
 MGT 371 Prod./Oper. Mgmt. 4
 MKT 321 Prin. of Marketing 4
 O-A 210 Business Comm. 2 3 19
 Elective 3

Third Quarter

Q-M 322 Business Statistics 2 4
 MGT 465 Business & Gov't. 4
 MGT 490 Business Policy 4
 MGT 375 Collective Bargain. 16

TRANSFER STUDENTS: If you do not have transfer credit for the following courses, you must take them where Electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. If possible, students should also take PSY 221, SOC 221, and SPC 105 or SPC 121.

EFFECTIVE FALL 1984

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____

Date _____

B.S. IN BUSINESS (PRODUCTION MANAGEMENT)

TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checklist.

FOURTH YEAR

THIRD YEAR

First Quarter

First Quarter

LEGEND:

- / Credits earned at Ferris.
 /tr Credits earned by transfer.
 X Courses that have been waived.
 Courses now being taken.

ACT 201 Prin. of Fin. Acct. 1	4	FIN 322 Financial Mgmt. 1	4
MKT 321 Prin. of Marketing	4	MGT 373 Personnel Mgmt.	4
MGT 261 Fund. of Management	3	Elective	8
D-P 202 Surv. of Data Proc.	4		16
	15		

Second Quarter

Second Quarter

ACT 202 Prin. of Fin. Acct. 2	4	Q-M 321 Business Statistics 1	4
LAW 221 Elem. Business Law	4	O-A 210 Business Comm. 2	4
MGT 262 Fund. of Org. Behav. 3	3	MGT 448 Strategy Formulation	4
MFG 331 Time & Motion Study	4	Elective Major	7
	15		19

Third Quarter

Third Quarter

ACT 203 Prin. of Mgt. Acct.	4	Q-M 322 Business Statistics 2	4
MGT 371 Prod./Oper. Mgmt.	4	MGT 465 Business & Gov't.	4
MFG 462 Plt. Lyt./Mat. Hnd.	4	MGT 490 Business Policy	4
Elective	7	MGT 461 Sem. in Productivity	4
	19		16

TRANSFER STUDENTS: If you do not have transfer credit for the following courses, you must take them where Electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. If possible, students should also take PSY 221, SOC 221, and SPC 103 or SPC 121. Transfer credits are also required for MTH 128, MTH 129, and D-P 203.

Note: MFG 331 is offered Winter quarters only. MFG 462 is offered Spring quarters only.

EFFECTIVE FALL 1984

Name of Student _____ Name of Advisor _____ Expected Date of Graduation _____
 Date _____

B.S. IN BUSINESS (SMALL BUSINESS MANAGEMENT)
 TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checklist.

		THIRD YEAR		FOURTH YEAR	
		First Quarter		First Quarter	
LEGEND:	/ Credits earned at Ferris.	ACT 201 Prin. of Fin. Acct. 1	4	MKT 423 Marketing Research	4
	/tr Credits earned by transfer.	LAW 221 Elem. Business Law	4	FIN 322 Financial Mgmt. I	4
	X Courses that have been waived.	MGT 261 Fund. of Management	3	MGT 373 Personnel Mgmt.	4
		D-P 202 Surv. of Data Proc.	4	Q-M 321 Business Statistics I	4
			13		16
		Second Quarter		Second Quarter	
		ACT 202 Prin. of Fin. Acct. 2	4	MGT 410 Entre. & Planning	4
		INS 131 Prin. of Insurance	4	Q-M 322 Business Statistics 2	4
		MGT 262 Fund. of Org. Behav.	3	MGT 448 Strategy Formulation	4
		O-A 210 Business Comm. 2	4	ADV 222 Prin. of Advertising	4
		D-P 205 Micro. Prog. & Appl.	4	Major Elective	3
			19		19
		Third Quarter		Third Quarter	
		ACT 203 Prin. of Mgt. Acct.	4	MKT 341 Credits & Collections	4
		MGT 371 Prod./Oper. Mgmt.	4	MGT 463 Business & Gov't.	4
		MKT 321 Prin. of Marketing	4	MGT 490 Business Policy	4
		MGT 310 Small Business Mgmt.	4	Major Elective	3
			16		13

TRANSFER STUDENTS: If you do not have transfer credits in the following courses, you must take them where electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. If possible, you should also take PSY 221, SOC 221, and SPC 105 or SPC 121.

BUS 122, Introduction to Business, should not be taken as an elective.

Name of Student _____ Date _____ Name of Advisor _____ Expected Date of Graduation _____

B.S. IN BUSINESS (INSURANCE)

TWO-YEAR TRANSFER PROGRAM

Insofar as possible, students should take the courses in the order in which they are listed on this checklist.

FOURTH YEAR

First Quarter

O-A 210 Business Comm. 2 4
 FIN 322 Financial Mgmt. 1 4
 D-P 205 Micro. Prog. & Appl. 4
 Insurance Elective 4
 16

THIRD YEAR

First Quarter

ACT 201 Prin. of Fin. Acct. 1 4
 D-P 202 Surv. of Data. Proc. 4
 INS 131 Prin. of Insurance 4
 FIN 300 Math. of Finance 4
 16

LEGEND:

/ Credits earned at Ferris.
 /tr Credits earned by transfer.
 X Courses that have been waived.
 Courses now being taken.

Second Quarter

Q-M 321 Business Statistics 1 4
 Insurance Elective 4
 MGT 448 Strategy Formulation 4
 LAW 350 Insurance Law 3
 Business Elective 3
 18

Second Quarter

ACT 202 Prin. of Fin. Acct. 2 4
 MGT 261 Fund. of Management 3
 INS 232 Life & Health Ins. 4
 MKT 321 Prin. of Marketing 4
 Electives 2-3
 17-18

Third Quarter

Q-M 322 Business Statistics 2 4
 MGT 465 Business & Gov't. 4
 MGT 490 Business Policy 4
 INS 487 Risk Management
 OR INS 490 Insurance Seminars/3
 13/16

Third Quarter

ACT 203 Prin. of Mgt. Acct. 4
 MGT 262 Fund. of Org. Behav. 3
 LAW 321 Contracts & Sales 4
 Elective 4
 INS 253 Personal Lines Ins. 3
 18

TRANSFER STUDENTS: If you do not have credit for the following courses, you must take them where Electives are indicated: ENG 111, ENG 112, ENG 113, ECN 221, ECN 222, and MTH 121. If possible, students should also complete PSY 221, SOC 221, and SPC 105 or SPC 121. All electives must be selected in conference with an advisor.

NAME OF STUDENT _____ DATE _____
 NAME OF ADVISOR _____ EXPECTED DATE OF GRADUATION _____

Ferris State College

8/85

B. S. BUSINESS (ADVERTISING) - TRANSFER PROGRAM

Directions for Completion of Checksheet:

1. Mark in the left column:
 / Courses completed by credit earned at Ferris.
 /tr Courses completed by transfer of credit.
 X The course has been waived.
2. Mark in the right column:
 ✓ Courses you are now taking.
3. Circle the name of the courses for which you are now pre-registering.

THIRD YEAR

First Quarter

O-A 210 - Business Communications II	4	_____
ADV 222 - Principles of Advertising	4	_____
MKT 321 - Principles of Marketing	4	_____
MGT 261 - Fund. of Management	3	_____
Free Elective	3	_____
	18	_____

Second Quarter

ACT 201 - Prin. of Fin. Accounting I	4	_____
MGT 262 - Fund. of Organ. Behavior	3	_____
ADV 311 - Adv. Layout & Production	4	_____
ADV 308 - Advertising Media	4	_____
ADV 360 - Advertising Copy	4	_____
	19	_____

Third Quarter

ACT 202 - Prin. of Fin. Accounting II	4	_____
D-P 202 - Survey of Data Proc.	4	_____
MKT 231 - Professional Selling	4	_____
MKT 322 - Consumer Behavior	4	_____
Directed Elective (MTH 121)	3/4	_____
	19/20	_____

FOURTH YEAR

First Quarter

Q-M 321 - Business Statistics	4	_____
FIN 322 - Financial Management	4	_____
ADV 340 - Public Relations Principles	4	_____
Directed Elective	3/4	_____
	15/16	_____

Second Quarter

MKT 425 - Marketing Research	4	_____
ADV 484 - Advertising Management	4	_____
Choose one of the following:	4	_____
ADV 382 - TV & Radio Adv.		_____
ADV 385 - Retail Advertising		_____
ADV 483 - Direct Advertising		_____
Directed Elective	2/3	_____
	14/15	_____

Third Quarter

ADV 433 - Advertising Campaigns	4	_____
MKT 491 - Marketing Policy	4	_____
MGT 465 - Business and Government	4	_____
Directed Elective	3	_____
	13	_____

Students having Associate degree credit for any of the courses listed above must substitute General Studies course requirements as identified in the 4-year Marketing/Advertising program.

NAME OF STUDENT _____ DATE _____

NAME OF ADVISOR _____ EXPECTED DATE OF GRADUATION _____

Ferris State College

7/85

B.S. BUSINESS (MARKETING) - TRANSFER PROGRAM

Directions for Completion of Checksheet:

1. Mark in the left columns:

- / Courses completed by credit earned at Ferris.
 /tr Courses completed by transfer of credit.
 X The course has been waived.

2. ✓ Courses you are now taking.

3. Circle the name of the courses for which you are now pre-registering.

THIRD YEAR

First Year

MKT 321 - Principles of Marketing	4	___
MKT 231 - Professional Selling	4	___
ACT 201 - Prin. of Fin. Accounting I	4	___
MTH 128 - Math Analysis	4	___
	16	___

Second Quarter

Q-M 321 - Business Statistics	4	___
MKT 322 - Consumer Behavior	4	___
D-P 202 - Survey of Data Processing	4	___
ACT 202 - Prin. of Fin. Accounting II	4	___
	16	___

Third Quarter

MKT 430 - Analytical Mkt. Techniques	4	___
MKT 365 - Transportation	4	___
MGT 261 - Fund. of Management	3	___
FIN 322 - Financial Management	4	___
Directed Elective	3	___
	18	___

FOURTH YEAR

First Quarter

ADV 222 - Principles of Advertising	4	___
MKT 378 - Marketing Data Analysis	4	___
MGT 262 - Fund. of Organ. Behavior	3	___
MKT 441 - International Marketing	4	___
Directed Elective	3	___
	18	___

Second Quarter

MKT 473 - Marketing Cases & Problems	4	___
MKT 425 - Marketing Research	4	___
Choose 2 of the following:	8	___
MKT 337 - Prin. of Retailing		
MKT 472 - Phys. Dist. Management		
ADV 340 - Public Relations Prin.		
MKT 410 - Industrial Marketing		
	16	___

Third Quarter

MKT 491 - Marketing Policy	4	___
O-A 210 - Business Communications II	4	___
MGT 465 - Business and Government	4	___
Directed Elective	4	___
	16	___

NAME OF STUDENT _____ DATE _____

NAME OF ADVISOR _____ EXPECTED DATE OF GRADUATION _____

Ferris State College

8/85

B. S. BUSINESS (MARKETING - RETAIL - TRANSFER PROGRAM)

Directions for Completion of Checksheet:

1. Mark in the left column:
 - / Courses completed by credit earned at Ferris.
 - /tr Courses completed by transfer of credit.
 - X The course has been waived.
2. Mark in the right column:
 - ✓ Courses you are now taking.
3. Circle the name of the courses for which you are now pre-registering.

THIRD YEAR

First Quarter

ADV 222 - Principles of Advertising	4	___
ACT 201 - Prin. of Fin. Accounting I	4	___
MKT 321 - Principles of Marketing	4	___
MGT 261 - Fund. of Management	3	___
	<u>15</u>	___

Second Quarter

ACT 202 - Prin. of Fin. Accounting II	4	___
MKT 229 - Visual Merchandising	4	___
MKT 322 - Consumer Behavior	4	___
IS-P 202 - Survey of Data Processing	4	___
MGT 262 - Fund. of Organ. Behavior	3	___
	<u>19</u>	___

Third Quarter

IS-M 321 - Business Statistics I	4	___
MKT 231 - Professional Selling	4	___
MKT 337 - Principles of Retailing	4	___
FIN 322 - Financial Management	4	___
	<u>16</u>	___

FOURTH YEAR

First Quarter

MKT 339 - Retail Merchandising	4	___
LAW 321 - Contracts and Sales	4	___
MKT 226 - Fashion Div. Merchandising	4	___
ADV 340 - Public Relations Principles	4	___
	<u>16</u>	___

Second Quarter

MKT 438 - Retail Management	4	___
MKT 232 - Home Division Merchandising	4	___
MKT 425 - Marketing Research	4	___
MKT 473 - Marketing Cases & Problems	4	___
	<u>16</u>	___

Third Quarter

ADV 385 - Retail Advertising	4	___
MKT 491 - Marketing Policy	4	___
O-A 210 - Business Communications II	4	___
Directed Elective	6	___
	<u>18</u>	___

Students having Associate Degree credit for any of the courses listed above must substitute General studies course requirements as identified in the 4-year Marketing program.

NAME OF STUDENT _____ DATE _____
 NAME OF ADVISOR _____ EXPECTED DATE OF GRADUATION _____

Ferris State College
 B. S. BUSINESS MARKETING - SALES - TRANSFER PROGRAM

8/85

Directions for Completion of Checksheet:

1. Mark in the left column:
 / Courses completed by credit earned at Ferris.
 /tr Courses completed by transfer of credit.
 x The course has been waived.
2. Mark in the right column:
 ✓ Courses you are now taking.
3. Circle the name of the courses for which you are now pre-registering.

THIRD YEAR

First Quarter

ADV 222 - Prin. of Advertising	4	_____
MKT 321 - Prin. of Marketing	4	_____
MKT 231 - Professional Selling	4	_____
ACT 201 - Prin. of Fin. Acct. I	4	_____
	<u>16</u>	

Second Quarter

O-M 321 - Business Statistics	4	_____
MKT 322 - Consumer Behavior	4	_____
D-P 202 - Survey of Data Proc.	4	_____
ACT 202 - Prin. of Fin. Acct. II	4	_____
	<u>16</u>	

Third Quarter

MKT 466 - Purchasing	4	_____
MKT 365 - Transportation	4	_____
LAW 321 - Contracts and Sales	4	_____
SPC 332 - Persuasion	4	_____
	<u>16</u>	

FOURTH YEAR

First Quarter

Choose 2 of the following:	8	_____
MKT 441 - International Marketing		_____
MKT 341 - Credits & Collections		_____
MKT 472 - Phys. Dist. Management		_____
ADV 340 - Pub. Relations Prin.		_____
ADV 360 - Advertising Copy		_____
MKT 436 - Sales Management	4	_____
MGT 261 - Fund. of Management	3	_____
Free Elective	<u>3</u>	_____
	<u>18</u>	

Second Quarter

MKT 473 - Mkt. Cases & Problems	4	_____
FIN 322 - Financial Management	4	_____
MKT 425 - Marketing Research	4	_____
MGT 262 - Fund. of Organ. Behavior	3	_____
Directed Elective	<u>3</u>	_____
	<u>18</u>	

Third Quarter

MKT 491 - Marketing Policy	4	_____
O-A 210 - Business Comm. II	4	_____
MKT 434 - Advanced Selling	4	_____
Directed Elective	<u>4</u>	_____
	<u>16</u>	

If Associate degree is not from a technical field, up to 12 hours of Laboratory Science must be substituted for listed courses for which prior credit has been received. Other substitutions will be from the General Studies course requirements as identified in the 4-year Marketing - Sales program.

Name of Student _____ Date _____

Name of Advisor _____ Expected Date of Graduation _____

FERRIS STATE COLLEGE

4:8/85

B.S. Degree in Business - Office Administration

ADMINISTRATIVE SERVICES

Transfer Program

(Choose one: Track A _____ or Track B _____ or Track C _____)

This curriculum is designed for transfer students who have been granted an Associate Degree from a regionally accredited college. Students having transfer credit for any of the courses listed below must, in consultation with their advisor, select an equal number of elective hours from General Education (non-business). Students not having transfer credit for the following courses must take them: ENG 111, ENG 112, ENG 113 and MTH 121.

First Quarter

The student's program for the first quarter of the junior year will be designed by the student's academic advisor in consultation with the student. The student will choose an Area of Concentration, Track A, B, or C. (See DIRECTED ELECTIVES.)

The program will be designed according to the specific needs of the student in relation to his or her progress in meeting the requirements of the B.S. Degree. Primary attention will be given to major and related requirements, business core requirements, and general education requirements. (14 hours minimum)

Second Quarter

O-A 210 Business Communications 2	4 _____
ACT 201 Prin. of Fin. Accounting 1	4 _____
O-A 150 Prin. of Records Mgmt.	3 _____
O-A 241 Calculating Machines	2 _____
O-A 252 Prin. of Office Administration	4 _____
	17 _____

Third Quarter

O-A 209 Office Communication Tech.	3 _____
MGT 261 Fundamentals of Management	3 _____
ACT 202 Prin. of Fin. Accounting 2	4 _____
ECN 221 Prin. of Economics 1	4 _____
O-A 350 Micrographics	3 _____
	17 _____

First Quarter

MGT 262 Fund. of Org. Behavior	3 _____
ECN 222 Prin. of Economics 2	4 _____
D-P 202 Survey of Data Processing	4 _____
O-A 310 Business Communications 3	4 _____
	15 _____

Second Quarter

*Q-M 321 Business Statistics 1	4 _____
MKT 321 Prin. of Marketing	4 _____
O-A 352 Admin. Information Syst.	4 _____
O-A 360 Records Administration	4 _____
	16 _____

Third Quarter

FIN 322 Financial Management	4 _____
LAW 321 Contracts and Sales	4 _____
O-A 452 Seminar in Office Admin.	4 _____
O-A 351 Prin. of W.P. Management	4 _____
	16 _____

Above classes are all required, plus those selected from Track A or Track B or Track C.

Minimum Number of Quarter Hours Required for Bachelor of Science Degree . . . 190 Hours
(Including Transfer Hours)

*Intermediate algebra level competence is a prerequisite to Q-M 321.

APPENDIX C
THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY
ACT OF 1974 AS AMENDED

APPENDIX C

THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 AS AMENDED

(Popularly known as the "Buckley Amendment")

Sec. 438. (a) (1) (A) No funds shall be made available under any applicable program to any educational agency or institution which has a policy of denying, or which effectively prevents, the parents of students who are or have been in attendance at a school of such agency or at such institution, as the case may be, the right to inspect and review the education records of their children. If any material or document in the education record of a student includes information on more than one student, the parents of one of such students shall have the right to inspect and review only such part of such material or document as relates to such student or to be informed of the specific information contained in such part of such material. Each educational agency or institution shall establish appropriate procedures for the granting of a request by parents for access to the education records of their children within a reasonable period of time, but in no case more than forty-five days after the request has been made.

(B) The first sentence of subparagraph (A) shall not operate to make available to students in institutions of postsecondary education the following materials:

(i) financial records of the parents of the student or any information contained therein;

(ii) confidential letters and statements of recommendation, which were placed in the education records prior to January 1, 1975, if such letters or statements are not used for purposes other than those for which they were specifically intended;

(iii) if the student has signed a waiver of the student's right of access under this

subsection in accordance with subparagraph (C), confidential recommendations—

(I) respecting admission to any educational agency or institution.

(II) respecting an application for employment, and

(III) respecting the receipt of an honor or honorary recognition.

(C) A student or a person applying for admission may waive his right of access to confidential statements described in clause (iii) of subparagraph (B), except that such waiver shall apply to recommendations only if (i) the student is, upon request, notified of the names of all persons making confidential recommendations and (ii) such recommendations are used solely for the purpose for which they were specifically intended. Such waivers may not be recurred [sic] as a condition for admission to, receipt of financial aid from, or receipt of any other services or benefits from such agency or institution.

(2) No funds shall be made available under any applicable program to any educational agency or institution unless the parents of students who are or have been in attendance at a school of such agency or at such institution are provided an opportunity for a hearing by such agency or institution, in accordance with regulations of the Secretary, to challenge the content of such student's education records, in order to insure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or other rights of students, and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein

and to insert into such records a written explanation of the parents respecting the content of such records.

(3) For the purposes of this section the term "educational agency or institution" means any public or private agency or institution which is the recipient of funds under any applicable program.

(4) (A) For the purposes of this section, the term "education records" means, except as may be provided otherwise in subparagraph (B), those records, files, documents, and other materials which—

(i) contain information directly related to a student; and

(ii) are maintained by an educational agency or institution, or by a person acting for such agency or institution.

(B) The term "education records" does not include—

(i) records of institutional, supervisory, and administrative personnel and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible or revealed to any other person except a substitute;

(ii) if the personnel of a law enforcement unit do not have access to education records under subsection (b)(1), the records and documents of such law enforcement unit which (I) are kept apart from records described in subparagraph (A), (II) are maintained solely for law enforcement purposes, and (III) are not made available to persons other than law enforcement officials of the same jurisdiction;

(iii) in the case of persons who are employed by an educational agency or institution but who are not in attendance at such agency or institution, records made and maintained in the normal course of business which relate exclusively to such person in that person's capacity as an employee and are not available for use for any other purpose; or

(iv) records on a student who is 18 years of age or older, or is attending an institution of postsecondary education, which are created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or para-professional acting in his professional or para-professional capacity, or assisting in that capacity, and which are created, maintained, or used only in connection with the provision of treatment to the student, and are not available to anyone other than persons providing such treatment; provided, however, that such records can be personally reviewed by a physician or other appropriate professional of the student's choice.

(5) (A) For the purposes of this section the term "directory information" relating to a student includes the following: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

(B) Any educational agency or institution making public directory information shall

give public notice of the categories of information which it has designated as such information with respect to each student attending the institution or agency and shall allow a reasonable period of time after such notice has been given for a parent to inform the institution or agency that any or all of the information designated should not be released without the parent's prior consent.

(6) For the purposes of this section, the term "student" includes any person with respect to whom an educational agency or institution maintains education records or personally identifiable information, but does not include a person who has not been in attendance at such agency or institution.

(b)(1) No funds shall be made available under any applicable program to any educational agency or institution which has a policy or practice of permitting the release of education records (or personally identifiable information contained therein other than directory information, as defined in paragraph (5) of subsection (a)) of students without the written consent of their parents to any individual, agency, or organization, other than to the following—

(A) other school officials, including teachers within the educational institution or local educational agency who have been determined by such agency or institution to have legitimate educational interests;

(B) officials of other schools or school systems in which the student seeks or, intends to enroll, upon condition that the student's parents be notified of the transfer, receive a copy of the record if desired, and have an opportunity for a hearing to challenge the content of the record;

(C) authorized representatives of (i) the Comptroller General of the United States, (ii) the Secretary, (iii) an administrative head of an education agency (as defined in section 408(c) of this Act), or (iv) State educational authorities, under the conditions set forth in paragraph (3) of this subsection; and

(D) in connection with a student's applications for, or receipt of, financial aid;

(E) State and local officials or authorities to which such information is specifically required to be reported or disclosed pursuant to State statute adopted prior to November 19, 1974;

(F) organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is conducted;

(G) accrediting organizations in order to carry out their accrediting functions;

(H) parents of a dependent student of such parents, as defined in section 152 of the Internal Revenue Code of 1954; and

(I) subject to regulations of the Secretary in connection with an emergency, appropriate

ate persons if the knowledge of such information is necessary to protect the health or safety of the student or other persons.

(2) No funds shall be made available under any applicable program to any education agency or institution which has a policy or practice of releasing, or providing access to, any personally identifiable information in education records other than directory information, or as is permitted under paragraph (1) of this subsection unless—

(A) there is written consent from the student's parents specifying records to be released, the reasons for such release, and to whom, and with a copy of the records to be released to the student's parents and the student if desired by the parents, or

(B) such information is furnished in compliance with judicial order, or pursuant to any lawfully issued subpoena, upon condition that parents and the students are notified of all such orders or subpoenas in advance of the compliance therewith by the educational institution or agency.

(3) Nothing contained in this section shall preclude authorized representatives of (A) the Comptroller General of the United States, (B) the Secretary, (C) an administrative head of an education agency or (D) State educational authorities from having access to student or other records which may be necessary in connection with the audit and evaluation of Federally supported education programs, or in connection with the enforcement of the Federal legal requirements which relate to such programs: *Provided*, That except when collection of personally identifiable information is specifically authorized by Federal law, any data collected by such officials shall be protected in a manner which will not permit the personal identification of students and their parents by other than those officials, and such personally identifiable data shall be destroyed when no longer needed for such audit, evaluation, and enforcement of Federal legal requirements.

(4) (A) Each educational agency or institution shall maintain a record, kept with the education records of each student, which will indicate all individuals (other than those specified in paragraph (1)(A) of this subsection), agencies, or organizations which have requested or obtained access to a student's education records maintained by such educational agency or institution, and which will indicate specifically the legitimate interest that each such person, agency, or organization has in obtaining this information. Such record of access shall be available only to parents, to the school official and his assistants who are responsible for the custody of such records, and to persons or organizations authorized in, and under the conditions of, clauses (A) and (C) of paragraph (1) as a means of auditing the operation of the system.

(B) With respect to this subsection, personal information shall only be transferred to a third party on the condition that such party will not permit any other party to have access to such information without the written consent of the parents of the student.

(c) The Secretary shall adopt appropriate regulations to protect the rights of privacy

of students and their families in connection with any surveys or data-gathering activities conducted, assisted, or authorized by the Secretary or an administrative head of an education agency. Regulations established under this subsection shall include provisions controlling the use, dissemination, and protection of such data. No survey or data-gathering activities shall be conducted by the Secretary, or an administrative head of an education agency under an applicable program, unless such activities are authorized by law

(d) For the purposes of this section, whenever a student has attained eighteen years of age, or is attending an institution of postsecondary education the permission or consent required of and the rights accorded to the parents of the student shall thereafter only be required of and accorded to the student.

(e) No funds shall be made available under any applicable program to any educational agency or institution unless such agency or institution informs the parents of students, or the students, if they are eighteen years of age or older, or are attending an institution of postsecondary education, of the rights accorded them by this section.

(f) The Secretary, or an administrative head of an education agency, shall take appropriate actions to enforce provisions of this section and to deal with violations of this section, according to the provisions of this Act, except that action to terminate assistance may be taken only if the Secretary finds there has been a failure to comply with the provisions of this section, and he has determined that compliance cannot be secured by voluntary means.

(g) The Secretary shall establish or designate an office and review board within the Department of Health, Education, and Welfare for the purpose of investigating, processing, reviewing, and adjudicating violations of the provisions of this section and complaints which may be filed concerning alleged violations of this section. Except for the conduct of hearings, none of the functions of the Secretary under this section shall be carried out in any of the regional offices of such Department.

APPENDIX D
FERRIS STATE COLLEGE APPROVAL

APPENDIX D

FERRIS STATE COLLEGE APPROVAL

FERRIS STATE COLLEGE

BIG RAPIDS, MICHIGAN 49307

Office of the Registrar

Prakken Building, 220

February 24, 1986

To Whom It May Concern:

This letter is to certify that Roland R. Ream has presented to the Registrar of Ferris State College an abstract of his proposed doctoral dissertation that he will submit as part of the requirements for the Doctor of Philosophy degree from Michigan State University. In order to conduct his research, he will need to review the academic records of a selected group of former Ferris students. In compliance with the provisions of the Family Educational Rights and Privacy Act, it is our policy to release restricted information from student records only to persons doing legitimate educational research and only as long as the anonymity of the individual students are protected. The identity of the students to be included as subjects in the project cannot be disclosed in the course of the research or in the final document.

Based upon the contents of Mr. Ream's proposal and discussions I have had with him, his project meets F.E.R.P.A. requirements for the release of information. Therefore, he has received my approval to use the academic records housed in the Registrar's Office (both hard copy and on-line files) for the purpose of gathering the data he requires for his dissertation. Only full-time personnel in the Registrar's Office will be authorized to provide him assistance in securing the data he needs. Part-time employess and student workers do not have access to the files and materials that will be used by Mr. Ream.

Should you have any questions, or require additional information, please feel free to direct such inquiries to me.

Sincerely,

Paul G. Schnepf
Registrar

APPENDIX E
MICHIGAN STATE UNIVERSITY APPROVAL

APPENDIX E

MICHIGAN STATE UNIVERSITY APPROVAL

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
238 ADMINISTRATION BUILDING
(517) 355-2186

EAST LANSING • MICHIGAN • 48824-1046

April 8, 1986

Dr. Paul Slocum
Teacher Education
Erickson Hall

Dear Dr. Slocum:

Subject: Proposal Entitled, "A Study Comparing the Academic
Performance and Graduation Rate of Transfer Students
with Native Students in the Baccalaureate Marketing
Curriculums in the School of Business at Ferris State
College" to be conducted by Roland Ream

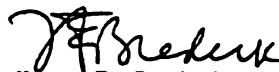
UCRIHS' review of the above referenced project has now been completed. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and the Committee, therefore, approved this project at its meeting on April 7, 1986.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval prior to April 7, 1987.

Any changes in procedures involving human subjects must be reviewed by the UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to our attention. If we can be of any future help, please do not hesitate to let us know.

Sincerely,


Henry E. Bredeck
Chairman, UCRIHS

HEB/jms

cc:  Roland Ream

APPENDIX F
RISK BENEFIT RATIO ANALYSIS

APPENDIX F

RISK BENEFIT RATIO ANALYSIS

Students

1. Risk - Student Identity in Data Search Process

Preventive Measures to Be Taken - Search is to be conducted as follows:

- a. Researcher will obtain student enrollment lists for the curricula under study from Ferris State College School of Business offices for research period involved.
- b. Enrollment lists will be physically carried by researcher to Office of the Registrar.
- c. Student record data will be searched by student number.
- d. Search for student record data will be conducted only by researcher and Ferris State College employees in the Office of the Registrar.

2. Risk - Student Identity During Entire Length of Research Process

Preventive Measures to Be Taken

- a. All data including working papers, notes, and memos will be secured at conclusion of each working day.
- b. Data would thus be unavailable for accidental notice by unauthorized individuals including students, other faculty members, custodians, or the media.

3. Risk - Student Identity During Analyzation Process

Preventive Measures to Be Taken

- a. Researcher will assign a number to each student on whom data is to be collected.

- b. Numbers assigned will classify student only according to gender, age grouping, transfer or native. (gender and age grouping will be the only demographic variables considered in the research)
- c. Student name and Ferris State College student number will be removed from working papers.
- d. Thus, statisticians working with student data will not have student names or Ferris State College student numbers available.

Two-Year Colleges

1. Risk - Identity of the Two-Year College from Which Student Transferred

Preventive Measures to Be Taken

- a. Enrollment lists obtained from School of Business will not identify students as transfer or native.
- b. Study population will be divided into transfer versus native groups at the Office of the Registrar only.
- c. Data on transfer students will be identified by total group rather than by particular two-year college attended.
- d. No matching of student with particular two-year college will be done.
- e. Working papers, notes, and memos will not identify two-year colleges.

2. Risk - Student Identity and/or Two-Year College Identity in Published Research Results

Preventive Measures to Be Taken

- a. All data including working papers, notes, memos and rough drafts forwarded to typists, printers, compilers, etc. will be devoid of student and/or two-year college identity.
- b. Research results will be published analyzing accomplishment of transfer students versus native students as groups with no identity to individual students and/or a particular two-year college.

Ferris State College1. Risk - Publishing of Data and Student Identity During Research ProcessPreventive Measures to Be Taken

- a. Care will be taken to assure all working papers, rough drafts, notes, etc. will be secured at the conclusion of each working day.
- b. No contact will be made to media, students, other faculty regarding potential results during time of research period.

2. Risk - Student Identity and Achievement at Ferris State College at Conclusion of StudyPreventive Measures to Be Taken

- a. Final report will not reveal student identity by name, Ferris State College student number or two-year college attended.
- b. Report will be written so no student identity will be inferred regarding gender, age, ethnic group, academic success or two-year college attended.

3. Risk - Printing of Computer Searched Data and Distribution to Media During Data Search and Analyzation ProcessPreventive Measures to Be Taken

- a. All student record data will be gathered only by researcher and employees of the Office of the Registrar.
- b. Only one copy of data will be requested.
- c. All data including working papers, rough drafts, notes, memos, etc. will be secured at conclusion of each working day.

4. Risk - Strained Relationship Between Ferris State College and Two-Year Colleges Should Research Indicate Inferior Transfer Student AccomplishmentPreventive Measures to Be Taken

- a. Student identity and/or two-year college will not be disclosed.

- b. Academic results from each specific two-year college will not be identified.
- c. Any possible inferior transfer student academic accomplishment should be viewed as constructive criticism.
- d. The study should result in even greater cooperation between two-year colleges and Ferris State College in resolving causes of any inferior academic accomplishment.

APPENDIX G

SCHOOL OF BUSINESS STUDENT WITHDRAWAL INTERVIEW

APPENDIX G

SCHOOL OF BUSINESS STUDENT WITHDRAWAL INTERVIEW

Part-time Student? _____

Name _____ Student No. _____ Date _____

Curriculum _____ Effective Date of Withdrawal _____

No. of Quarters at Ferris _____ CHPA _____ SCAT Code _____

Hours Earned at Ferris _____ Transfer Hours _____

Reason for Withdrawal _____

Will Student Return to Ferris? _____

In Same or Different Curriculum? _____

Withdrawal Processed in Person _____ By Telephone _____ By Mail _____

1/75

APPENDIX H
WITHDRAWAL CLEARANCE FORM

APPENDIX H

WITHDRAWAL CLEARANCE FORM (Please print or type)

Date _____

1. Student Number _____ Student Name _____ School _____

2. Permanent Mailing Address _____ City _____ State _____ Zip _____

3. I am interrupting my training _____ Date _____ Quarter _____
for the following reasons: _____

Student Signature

4. NOTICE TO STUDENT:

- A. If you have registered for next quarter, your schedule will be dropped.
- B. If you wish to return after this date, you must apply through the Admissions Office.
- C. If this withdrawal is due to health reasons, it will be necessary for you to clear with the Ferris State College Health Center before being re-admitted.
- D. Please answer the following:

Are you a veteran? Yes _____ No _____

Do you owe money to the college? Yes _____ No _____

Are you receiving financial aid? Yes _____ No _____

Did you attend Ferris last quarter? Yes _____ No _____

E. Take this form to the Housing Office, South Commons, for clearance (this includes off-campus students). This form will be collected at that office.

F. If you live in a residence hall, you must vacate within twenty-four (24) hours after you withdraw.

G. Refunds, if appropriate, can be expected within three to four weeks.

5. School Action: _____

Dean's Office

Date

6. Housing Office Clearance:

For the Director

Date

7. Cashier's Office

For the Cashier

Date

Routing: Student—Leave all copies at the Housing Office
Housing—Forward all copies to the Cashier's Office
Cashier—Forward yellow and pink copies to Registrar's Office

APPENDIX I
STATISTICAL DATA

APPENDIX I

STATISTICAL DATA

Table 53. Summary of Cumulative Freshman and Sophomore Grade Point Statistics

Gender	<u>Status</u>		<u>Transfer and Native Students</u>	
	Transfer Students	Native Students	Transfer and Native Students	
Male	Number	40	Number	48
	Mean	2.78	Mean	2.49
	Std. Dev.	.53	Std. Dev.	.45
Female	Number	27	Number	38
	Mean	2.87	Mean	2.90
	Std. Dev.	.49	Std. Dev.	.47
Transfer and Native Students	Number	67	Number	86
	Mean	2.82	Mean	2.67
	Std. Dev.	.51	Std. Dev.	.50
			Number	153*
			Mean	2.74
			Std. Dev.	.51

*Only 153 of the 155 student population total are reported since cumulative freshman and sophomore grade point averages are unavailable for one male transfer student and one female transfer student included in the study

Table 54. Summary of Analysis of Variance Test of Cumulative Freshman and Sophomore Grade Point Averages

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender	2.581	1	2.581	11.03	3.84	.001
Status	.897	1	.897	3.83	3.84	.052
Gender-Status	.921	1	.921	3.94	3.84	.049
Error	<u>34.856</u>	<u>149</u>	.234			
Total	39.255	152				

Table 55. Summary of Grade Point Statistics for Four Selected Lower-Level Marketing Courses

Gender	<u>Status</u>				Transfer and Native Students	
	Transfer Students		Native Students			
Male	Number	39	Number	48	Number	87
	Mean	2.68	Mean	2.43	Mean	2.54
	Std. Dev.	.69	Std. Dev.	.55	Std. Dev.	.63
Female	Number	27	Number	38	Number	65
	Mean	2.75	Mean	2.69	Mean	2.71
	Std. Dev.	.74	Std. Dev.	.56	Std. Dev.	.64
Transfer and Native Students						
Stu- dents	Number	66	Number	86	Number	152*
	Mean	2.71	Mean	2.54	Mean	2.62
	Std. Dev.	.71	Std. Dev.	.56	Std. Dev.	.64

*Only 152 of the 155 student population total are reported since two male transfer students and one female transfer student included in the study did not complete any of the four selected lower-level marketing courses

Table 56. Summary of Analysis of Variance Test of Grade Point Averages for Four Selected Lower-Level Marketing Courses

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender	1.050	1	1.050	2.66	3.84	.105
Status	1.120	1	1.120	2.84	3.84	.094
Gender-Status	.333	1	.333	.84	3.84	.360
Error	<u>58.401</u>	<u>148</u>	.395			
Total	60.904	151				

Table 57. Summary of Cumulative Junior and Senior Grade Point Statistics

Gender	<u>Status</u>		<u>Transfer and Native Students</u>	
	Transfer Students	Native Students	Transfer and Native Students	
Male	Number	40	Number	48
	Mean	2.58	Mean	2.45
	Std. Dev.	.53	Std. Dev.	.45
Female	Number	27	Number	38
	Mean	2.57	Mean	2.79
	Std. Dev.	.57	Std. Dev.	.47
Transfer and Native Students				
Stu- dents	Number	67	Number	86
	Mean	2.57	Mean	2.60
	Std. Dev.	.55	Std. Dev.	.48
Transfer and Native Students				
Stu- dents	Number	67	Number	86
	Mean	2.57	Mean	2.60
	Std. Dev.	.55	Std. Dev.	.48

*Only 153 of the 155 student population total are reported since one male transfer student and one female transfer student included in the study did not complete any full quarter at Ferris State College

Table 58. Summary of Analysis of Variance Test of Cumulative Junior and Senior Grade Point Averages

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender	1.293	1	1.293	5.19	3.84	.024
Status	.011	1	.011	0.05	3.84	.832
Gender-Status	1.102	1	1.102	4.42	3.84	.037
Error	<u>37.131</u>	<u>149</u>	.249			
Total	39.537	152				

Table 59. Summary of Differences in Cumulative Freshman and Sophomore Grade Point Statistics and Grade Point Statistics for First Quarter of Junior Year

Gender	<u>Status</u>		<u>Transfer and Native Students</u>	
	Transfer Students	Native Students	Transfer and Native Students	
Male	Number	40	Number	48
	Mean	-.28	Mean	.12
	Std. Dev.	.70	Std. Dev.	.52
Female	Number	26	Number	38
	Mean	-.20	Mean	-.18
	Std. Dev.	.52	Std. Dev.	.59
Transfer and Native Students	Number	66	Number	86
	Mean	-.25	Mean	-.02
	Std. Dev.	.63	Std. Dev.	.57
			Number	152*
			Mean	-.12
			Std. Dev.	.61

*Only 152 of the 155 student population total are reported since (a) cumulative freshman and sophomore grade point averages are unavailable for one female transfer student and one male transfer student included in the study and (b) the latter student as well as one female transfer student included in the study did not complete any full quarter at Ferris State College

Table 80. Summary of Analysis of Variance Test of Differences in Cumulative Freshman and Sophomore Grade Point Averages and Grade Point Averages for First Quarter of Junior Year

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender	.613	1	.613	1.77	3.84	.185
Status	2.170	1	2.170	6.26	3.84	.013
Gender-Status	1.304	1	1.304	3.76	3.84	.054
Error	<u>51.273</u>	<u>148</u>	.346			
Total	55.360	151				

Table 61. Summary of Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses

Gender	<u>Status</u>				Transfer and Native Students	
	Transfer Students		Native Students			
Male	Number	36	Number	43	Number	79
	Mean	2.35	Mean	2.36	Mean	2.35
	Std. Dev.	.53	Std. Dev.	.47	Std. Dev.	.49
Female	Number	21	Number	36	Number	57
	Mean	2.45	Mean	2.59	Mean	2.54
	Std. Dev.	.64	Std. Dev.	.57	Std. Dev.	.59
Transfer and Native Students	Number	57	Number	79	Number	136*
	Mean	2.39	Mean	2.46	Mean	2.43
	Std. Dev.	.57	Std. Dev.	.53	Std. Dev.	.54

*Only 136 of the 155 student population total are reported since five male transfer students, seven female transfer students, five male native students and two female native students included in the study did not complete any of the five selected upper-level marketing courses

Table 62. Summary of Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender	1.164	1	1.164	3.99	3.84	.048
Status	.116	1	.116	.40	3.84	.530
Gender-Status	.142	1	.142	.48	3.84	.488
Error	<u>38.538</u>	<u>132</u>	.292			
Total	39.960	135				

Table 63. Summary of Grade Point Statistics of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

Gender	<u>Status</u>				Transfer and Native Students	
	Transfer Students		Native Students			
Male	Number	10	Number	39	Number	49
	Mean	2.42	Mean	2.34	Mean	2.35
	Std. Dev.	.64	Std. Dev.	.49	Std. Dev.	.52
Female	Number	8	Number	35	Number	43
	Mean	2.53	Mean	2.59	Mean	2.58
	Std. Dev.	.72	Std. Dev.	.57	Std. Dev.	.60
Transfer and Native Students						
Native Students	Number	18	Number	74	Number	92*
	Mean	2.47	Mean	2.46	Mean	2.46
	Std. Dev.	.66	Std. Dev.	.54	Std. Dev.	.56

*Only ninety-two of the 155 student population are reported since (a) thirty-one male transfer students and twenty female transfer students included in the study did not complete at least three lower-level marketing courses at regionally accredited colleges other than Ferris State College and (b) nine male native students and three female native students included in the study did not complete at least three lower-level marketing courses at Ferris State College

Table 64. Summary of Analysis of Variance Test of Grade Point Averages of Juniors and Seniors for Five Selected Upper-Level Marketing Courses of Transfer Students Who Had Taken Selected Lower-Level Marketing Courses at Colleges Other Than Ferris State College and of Native Students Who Had Taken Selected Lower-Level Marketing Courses at Ferris State College

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F ratio value	critical F value (.05 level)	p-value
Gender	1.143	1	1.143	3.65	3.84	.059
Status	.005	1	.005	.01	3.84	.903
Gender-Status	.068	1	.068	.22	3.84	.643
Error	<u>27.565</u>	<u>88</u>	.313			
Total	28.781	91				

Table 65. Summary of Course Withdrawals of Juniors and Seniors

Gender	Number of Courses Withdrawn	<u>Status</u>				<u>Transfer and Native Students</u>	
		<u>Transfer Students</u>		<u>Native Students</u>		<u>Students</u>	
		Number	%	Number	%	Number	%
Male	0	14	34.2*	11	22.9*	25	28.1*
	1	10	24.4	8	16.7	18	20.2
	2	6	14.6	13	27.1	19	21.4
	3 or more	<u>11</u>	<u>26.8</u>	<u>16</u>	<u>33.3</u>	<u>27</u>	<u>30.3</u>
		41	100.0	48	100.0	89	100.0
Female	0	11	39.3*	15	39.5*	26	39.4*
	1	6	21.4	4	10.5	10	15.2
	2	4	14.3	13	34.2	17	25.8
	3 or more	<u>7</u>	<u>25.0</u>	<u>6</u>	<u>15.8</u>	<u>13</u>	<u>19.7</u>
		28	100.0	38	100.0	66	100.0**
Transfer and Native Students	0	25	36.2*	26	30.2*	51	32.9*
	1	16	23.2	12	14.0	28	18.1
	2	10	14.5	26	30.2	36	23.2
	3 or more	<u>18</u>	<u>26.1</u>	<u>22</u>	<u>25.6</u>	<u>40</u>	<u>25.8</u>
		69	100.0	86	100.0	155	100.0

* Column percent

**Values actually add to 100.1% because of rounding each percent to nearest one-tenth

**Table 66. Summary of Chi Square Test of Course Withdrawals
of Juniors and Seniors**

Hypotheses	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p- value
7 (Status)	3	6.314	7.815	.097
12 (Male)	3	3.559	7.815	.313
12 (Female)	3	4.444	7.815	.217

Table 67. Summary of Attrition of Juniors and Seniors

Gender	<u>Status</u>						<u>Transfer and Native Students</u>		
	<u>Transfer Students</u>			<u>Native Students</u>					
	Total No.	Att. No.	Att. %	Total No.	Att. No.	Att. %	Total No.	Att. No.	Att. %
Male	41	7	17.1	48	9	18.8	89	16	18.0
Female	28	8	28.6	38	3	7.9	66	11	16.7
Transfer and Native Students	69	15	21.7	86	12	14.0	155	27	17.4

Table 68. Summary of Chi Square Test of Attrition of Juniors and Seniors

Hypotheses	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
8 (Status)	1	1.613	3.841	.204
12 (Male)	1	.042	3.841	.837
12 (Female)	1	4.962	3.841	.026

Table 89. Summary of Reasons for Attrition of Juniors and Seniors

Gender	Att. Reason	<u>Status</u>				<u>Transfer and Native Students</u>	
		<u>Transfer Students</u>		<u>Native Students</u>		<u>Transfer and Native Students</u>	
		Att. No.	Att. %	Att. No.	Att. %	Att. No.	Att. %
Male	Grades	1	14.3*	7	77.8*	8	50.0*
	Financial	4	57.1	2	22.2	6	37.5
	Illness	0	0	0	0	0	0
	Live at Home	1	14.3	0	0	1	6.3
	Cur. Change	0	0	0	0	0	0
	Unknown	<u>1</u>	<u>14.3</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>6.3</u>
		7	100.0	9	100.0	16	100.0**
Female	Grades	4	50.0*	1	33.3*	5	45.5*
	Financial	1	12.5	0	0	1	9.1
	Illness	1	12.5	0	0	1	9.1
	Live at Home	0	0	0	0	0	0
	Cur. Change	1	12.5	2	66.7	3	27.3
	Unknown	<u>1</u>	<u>12.5</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>9.1</u>
		8	100.0	3	100.0	11	100.0**
Transfer and Native Students	Grades	5	33.3*	8	66.7*	13	48.2*
	Financial	5	33.3	2	16.7	7	25.9
	Illness	1	6.7	0	0	1	3.7
	Live at Home	1	6.7	0	0	1	3.7
	Cur. Change	1	6.7	2	16.7	3	11.1
	Unknown	<u>2</u>	<u>13.3</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>7.4</u>
		15	100.0	12	100.0**	27	100.0

* Column percent

**Values actually add to 100.1% because of rounding each percent to nearest one-tenth

Table 70. Summary of Chi Square Test of Reasons for Attrition by Grades Compared to Other Reasons for Attrition of Juniors and Seniors

Hypothesis	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
9 (Status)	1	2.967	3.841	.085

Table 71. Summary of Juniors and Seniors on Academic Probation for Any One Quarter

Gender	<u>Status</u>						<u>Transfer and Native Students</u>		
	<u>Transfer Students</u>			<u>Native Students</u>					
	Total No.	Pro. No.	Pro. %	Total No.	Pro. No.	Pro. %	Total No.	Pro. No.	Pro. %
Male	41	2	4.9	48	7	14.6	89	9	10.1
Female	28	2	7.1	38	0	0	66	2	3.0
Transfer and Native Students	69	4	5.8	86	7	8.1	155	11	7.1

Table 72. Summary of Chi Square Test of Juniors and Seniors on Academic Probation for Any One Quarter

Hypotheses	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
10 (Status)	1	.319	3.841	.572
12 (Male)	1	2.291	3.841	.130

Table 73. Summary of Seniors Who Graduated by Spring 1986

Gender	<u>Status</u>						<u>Transfer and Native Students</u>		
	<u>Transfer Students</u>			<u>Native Students</u>			<u>Transfer and Native Students</u>		
	Total No.	Grd. No.	Grd. %	Total No.	Grd. No.	Grd. %	Total No.	Grd. No.	Grd. %
Male	41	34	82.9	48	38	79.2	89	72	80.9
Female	28	20	71.4	38	35	92.1	66	55	83.3
Transfer and Native Students	69	54	78.3	86	73	84.9	155	127	81.9

Table 74. Summary of Chi Square Test of Seniors Who Graduated by Spring 1986

Hypotheses	Degrees of Freedom	Chi Square value	critical Chi Square value (.05 level)	p-value
11 (Status)	1	1.135	3.841	.287
12 (Male)	1	.202	3.841	.653
12 (Female)	1	4.962	3.841	.026

BIBLIOGRAPHY

BIBLIOGRAPHY

Books

- Andersen, Charles J. 1981-82 Fact Book for Academic Administrators. Washington, D. C.: American Council on Education, 1981.
- Chronicle Guidance Publications, Inc. Chronicle Guide for Transfers. Moravia, N. Y.: Chronicle Guidance Publications, Inc., 1983.
- College Entrance Examination Board. The College Handbook 1985-86. New York: College Entrance Examination Board, 1985.
- Cope, Robert, and Hannah, William. Revolving Doors: The Causes and Consequences of Dropping Out, Stopping Out, and Transferring. New York: John Wiley & Sons, 1975.
- Daniel, Wayne W. Essentials of Business Statistics. Boston: Houghton Mifflin Company, 1984.
- Deupree, Joseph E. A Century of Opportunity A Centennial History: of Ferris State College. Big Rapids, MI.: Ferris State College, 1982.
- Eells, Walter Crosby. The Junior College. Boston: Houghton Mifflin Company, 1931.
- Erickson, Lance, ed. Transfer Credit Practices of Designated Educational Institutions. Ann Arbor, MI.: American Association of Collegiate Registrars and Admissions Officers, 1983.
- Frankel, Martin M. and Gerald, Debra E. Projections of Education Statistics to 1988-89. Washington, D.C.: U. S. Government Printing Office, 1980.
- Garrett, Henry E., and Woodworth, R. S. Statistics in Psychology and Education. New York: Longmans, Green and Co., 1958.

- Gossman, Charles S.; Nobbe, Charles E.; Patricelli, Theresa; Schmid, Calvin F.; and Steahr, Thomas E. Migration of College and University Students in the United States. Seattle: University of Washington Press, 1968.
- Grant, W. Vance, and Snyder, Thomas D. Digest of Education Statistics 1983-84. Washington, D. C.: U. S. Government Printing Office, 1983.
- Hathaway, Richard J. ed. Michigan: A Dissertation Bibliography. Ann Arbor: University Microfilms International, 1979.
- Knoell, Dorothy M., and Medsker, Leland L. From Junior to Senior College: A National Study of the Transfer Student. Washington, D. C.: American Council on Education, 1965.
- Marquis Professional Publications. Yearbook of Higher Education. A Directory of Colleges and Universities. Chicago: Marquis Who's Who, Inc., 1984.
- Menacker, Julius. From School to College: Articulation and Transfer. Washington, D. C.: American Council on Education, 1975.
- Mills, Richard L. Statistics for Applied Economics and Business. New York: McGraw-Hill Book Company, 1977.
- National Center for Education Statistics. Digest of Education Statistics. Washington, D. C.: U. S. Department of Education, 1984.
- National Center for Education Statistics. The Condition of Education. Washington, D. C.: U. S. Department of Education, 1984.
- Nye, Russel B. Ferris Comes of Age: The Years of Transition 1946-1963. Big Rapids, MI.: The Centennial Task Force, 1983.
- Parker, Garland Glenwood. Career Education and Transfer Program Enrollments in 2-Year Colleges, 1973-74. Iowa City, IA.: The American College Testing Publications, 1974.
- Parker, Garland Glenwood. The Enrollment Explosion: A Half-Century of Attendance in U. S. Colleges and Universities. New York: School and Society Books, 1971.

- Sandeen, Arthur, and Goodale, Thomas. The Transfer Student: An Action Agenda for Higher Education. Gainesville, FL.: University of Florida, 1976.
- Smith, G. M. A Simplified Guide to Statistics for Psychology and Education. New York: Holt, Rinehart and Winston, 1970.
- The College Division. Barron's Compact Guide to College Transfer. Woodbury, N. Y.: Barron's Educational Series, Inc., 1979.
- Thornton, James W. Jr. The Community Junior College. 3d ed. New York: John Wiley and Sons, Inc., 1972.
- U. S. Department of Commerce. Bureau of the Census. National Data Book and Guide to Sources-Statistical Abstract of the United States 1986. 106th ed. Washington, D. C.: U. S. Government Printing Office, 1985.
- Weiss, Neil, and Hassett, Matthew. Introductory Statistics. Reading, MA.: Addison-Wesley Publishing Company, 1982.

Dissertations

- Altman, Gene. "An Analysis of Transfer Credits Accepted and Length of Time Taken to Complete Bachelor's Degrees by Selected Transfer Business Management Students." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1981.
- Bulkley, Kent Vernon. "A Study of the Academic Achievement and Graduation Rate of Transfer Students to Michigan State University from Two-Year and Four-Year Institutions." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1975.
- Capraro, Vincent J. "A Comparison of Community College Distributive Education Programs Based on the Graduates' Perceptions of their Performance and Occupational Success on the Job." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1980.

- Desmond, Mary Ann. "Assessment of a Community College's Transfer Preparation for Selected Majors, Considering Factors of Student Eligibility, Opinion, and Grade Point Differentials." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1984.
- Downey, Carolyn R. A Follow-Up Study of 1975-78 Business Administration and Secretarial/Clerical Graduates Who Received an Associate in Arts and Sciences Degree from Ricks College and Transferred to a Four-Year College or University. Logan, UT.: By the Author, 1980.
- Dragon, Albert Leon. "An Investigation of the Academic Success of Community and Junior College Transfers Entering a Four-Year College of Business." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1980.
- Fleishans, John Thomas III. Junior/Community College Transfer Students' Success in a Collegiate School of Business Administration. Tempe, AZ.: By the Author, Arizona State University, 1973.
- Goodarzania, Homayoun. "A Comparative Study of Academic Performance Between Northern Virginia Community College Transfer Students and Native Students at the George Mason University." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1983.
- Impink, Patti Johnson. "Economic Achievement of Junior College Students in Terminal and Transfer Programs." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1983.
- Nott, Goldie Tilman. "The Establishment and Growth of Ferris State Institute, 1884-1960." Master's thesis, School of Education, University of Michigan, 1962.
- Pion, Nelson Everett. "An Evaluation of the Performance of Marketing and Management Transfer Students at the University of Massachusetts." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1983.

Popple, Diane Dawn. "Comparison of Existing and Recommended Practices of Articulation in Business Education." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1980.

Sargent, Duncan MacGregor. "A Comparative Study of the Pre-Grade-Flation, Post-Grade-Flation Academic Success of Michigan Community College Transfer Students to Michigan State University in 1965-67 and 1971-1973." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1978.

Sutherland, Lee William. The Difference Between Transfer Students' Entering G.P.A. After One Semester in the College of Business Administration at Suffolk University. Boston: By the Author, Suffolk University, 1978.

Turner, Mary Hill. "Articulation Practices in NABTE Member Institutions Regarding Shorthand and Typewriting Courses Completed in High Schools and Non-collegiate Post-Secondary Schools." In Dissertation Abstracts International, edited by Patricia M. Colling. Ann Arbor: University Microfilms International, 1983.

Interviews

Churchill, Donna. Alumni Records Office Staff.
Ferris State College, Big Rapids, Michigan.
Interview, 8 July 1985.

Cooper, Michael C. Faculty Member. Ferris State College, Big Rapids, Michigan. Interviews, 15 May 1986, 21 May 1986, 18 June 1986, 25 June 1986, 7 May 1987, 11 June 1987.

Dickens, Otis. Assistant Dean. Ferris State College, Big Rapids, Michigan. Interviews, 1 July 1985, 9 July 1985, 6 September 1985, 11 March 1986, 27 March 1986, 22 April 1986, 28 April 1987, 24 June 1987.

Heisler, Alan A. Faculty Member. Ferris State College, Big Rapids, Michigan. Interview, 21 April 1986.

Junker, Elmer S. Faculty Member. Ferris State College, Big Rapids, Michigan. Interview, 26 March 1985.

- Lucas, Keith E. Faculty Member. Ferris State College, Big Rapids, Michigan. Interviews, 30 January 1985, 9 July 1986, 17 September 1986.
- Maas, James D. Faculty Member. Ferris State College, Big Rapids, Michigan. Interviews, 25 June 1986, 17 June 1987.
- Navnarro, Adolfo. Research Consultant. Michigan State University, East Lansing, Michigan. Interviews, 11 October 1985, 25 October 1985.
- Schnepf, Paul G. Registrar. Ferris State College, Big Rapids, Michigan. Interviews, 8 July 1985, 5 April 1986, 14 July 1986, 24 September 1986.
- Schnepf, Paul G. Registrar. Ferris State College, Big Rapids, Michigan. Telephone Interview, 4 April 1986.
- Swartz, Manfred E. Coordinator of Testing. Ferris State College, Big Rapids, Michigan. Interviews, 14 June 1985, 2 July 1985, 9 June 1987.
- Swartz, Manfred E. Coordinator of Testing. Ferris State College, Big Rapids, Michigan. Telephone Interview, 4 May 1987.
- Sytsma, Sidney P. Director Planning and Development. Ferris State College, Big Rapids, Michigan. Interviews, 18 June 1985, 2 July 1985.
- Taylor, William G. News Editor. Ferris State College, Big Rapids, Michigan. Telephone Interview, 4 April 1986.

Journal and Magazine Articles

- Association of Independent Colleges and Schools. "New AACSB Standards Reflect Transfer-of-Credit for Member Institutions." ICS Compass 11 (November 1984): 11.
- Groft, William L. "Elementary and Intermediate Accounting Achievement of Native and Transfer Students in Selected Colleges and Universities in Pennsylvania." Alpha Epsilon Research 20 (Spring 1980): 1-3.
- Krzystofik, Anthony T., and Bridgman, Spencer C. "A Need for Closer Integration of Two-and Four-Year Business Programs." Collegiate News & Views 34 (Spring 1981): 4.

Kintzer, Frederick C. "Articulation/Transfer Agreements: Alternative Approaches." AICS Compass 46 (July 1982): 10-11; and (August 1982): 4, 6.

National Education Association. "Community Colleges Address What Makes a Learner." NEA Higher Education Advocate 18 (March 1986): 1.

National Education Association. "ETAL." NEA Higher Education Advocate 20 (December 1985): 4; 13 (May 1985): 4; 8 (October 1985): 4; and 7 (December 1984): 4.

Newspapers

"2 Years of Study at Grand Rapids Junior College + 2 Years of Study at Grand Valley State = 4-Year College Degree," The Grand Rapids Press, 5 December 1985, sec. A, p. 15.

"College Dropout More Likely if Students Don't Get Involved," The Grand Rapids Press, 4 December 1985, sec. D, p. 9.

"Junior College, GVSC Coordinate Two-Year, Pre-Nursing Courses," The Grand Rapids Press, 7 July 1986, sec. C, p. 3.

Records and Reports

Allred, Marcus, and Wingfield, Julian C. Jr. Follow-Up Study of 1979-80 Students: North Carolina Community College System. Raleigh: North Carolina State Department of Community Colleges, [1982].

Brue, Eldon J.; Engen, Harold B.; and Maxey, E. James. ACT Research Report: How Do Community College Transfer and Occupational Students Differ? No. 41 Iowa City: The American Testing Program, [1971].

Hawaii University. University of Hawaii at Manoa Graduates with Community College Background. Community Colleges. Academic Year 1979-80. Honolulu: Office of Institutional Research and Analysis, [1981].

Junker, Elmer S. "History of Ferris State College." Report for History of Higher Education in the U. S. class, College of Education, Michigan State University, 1967.

Mohr, Paul B. Sr., and Sears, James C. A Successful Model for Articulation and the Development of Two-Plus-Two Program Agreements Between Norfolk State University. A Predominantly Black Four-Year Public Institution, and Tidewater Community College. A Predominantly White Multi-Campus Two-Year Public Community College. Durham, ND.: North Carolina Central University, [1979].

Slark, Julie, and Bateman, Harold. Transfer Students' Academic Performance at the University of California and the California State Universities and Colleges and other Related Information. Santa Ana: Santa Ana College, [1983].

Slark, Julie, and Bateman, Harold. Transfer Students' Academic Progress at the University of California and the California State Universities and Colleges. Santa Ana: Santa Ana College, [1981].

Other Sources

Ferris State College. 1985-86 The Facts. Ferris State College. Big Rapids, MI.: Ferris State College, 1986.

Ferris State College. School Bulletin. Big Rapids, MI.: Ferris State College, 1984.

Ferris State College. Student Handbook. Big Rapids, MI.: Student Services, 1984.

Michigan Association of College Registrars and Admissions Officers. The MACRAO Articulation Agreement. Dowagiac: Michigan Association of Collegiate Registrars and Admissions Officers, 1982.

U. S. The Family Educational Rights and Privacy Act of 1974 as Amended.

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 10762 7725