

A CASE STUDY OF SELECTED FACTORS RELATING
TO CONTINUANCE OR WITHDRAWAL OF
FULL-TIME FRESHMAN AT GRAND RAPIDS
JUNIOR COLLEGE

Thesis for the Degree of Ph. D.
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Paul Phillip Sidwell
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This is to certify that the

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CONTINUANCE OR WITHDRAWAL OF FULL-TIME FRESHMEN
AT GRAND RAPIDS JUNIOR COLLEGE

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Paul Phillip Sidwell

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ABSTRACT

A CASE STUDY OF SELECTED FACTORS RELATING TO CONTINUANCE OR WITHDRAWAL OF FULL-TIME FRESHMEN AT GRAND RAPIDS JUNIOR COLLEGE

by Paul Phillip Sidwell

THE PROBLEM

This study investigated withdrawal of full-time freshmen from a metropolitan, public community-junior college. The study was concerned with ascertaining the magnitude of withdrawal, the time withdrawal occurred, the activities of students after withdrawal, and the relationship between selected variables and persistence into the sophomore year in the community-junior college. Selected variables in high school preparation, family influences, community-junior college academic performance, participation in college co-curricular activities, paid employment, attitudes toward the community-junior college, and level of aspiration were investigated.

The study was limited to the June, 1959, graduates of the Grand Rapids city public high schools who enrolled full-time in Grand Rapids Junior College in September, 1959. The study was further limited to the investigation of persistence through the freshman year and into the beginning of the sophomore year covering the period September, 1959 through September, 1960.

METHODOLOGY

Data were obtained from parent and student questionnaires covering post-high school educational and vocational plans completed in May of the students' senior year in high school, a follow-up study of the actual post-high school activities of these students, official records from Grand Rapids Junior College, and individual interviews.

Three-hundred and sixteen freshmen who enrolled full-time in Grand Rapids Junior College in September, 1959, comprised the study sample. Data were analyzed by separating the sample into those who persisted into the second year full-time in Grand Rapids Junior College, those who voluntarily withdrew during or at the end of the freshman year, and those who were dismissed by the college during or at the end of the freshman year.

The Chi-square test of independence, "t", and "F" tests were applied to data as appropriate. The 5 per cent level of confidence was set for statistical significance.

FINDINGS

Approximately 30 per cent withdrew during or at the end of the freshman year.

The great majority of voluntary withdrawals and dismissals occurred at the end of the second semester.

Withdrawal from the community-junior college did not necessarily result in termination of a formal educational

program. A number of voluntary withdrawals and dismissals continued a formal program elsewhere. Other voluntary withdrawals anticipated return to the community-junior college on a part- or full-time basis.

Eight of the variables studied were significantly related to withdrawal: (1) sex, (2) curriculum completed in high school, (3) high school decile rank in class, (4) educational plans of the students, (5) community-junior college curriculum enrolled in September, 1959, (6) first semester and first year grade point averages, (7) enrollment in remedial English, and (8) total number of remedial courses in which the student was enrolled.

Eighteen of the variables investigated were not significantly related to withdrawal.

Voluntary withdrawals as a group performed as well academically as the group of freshmen who persisted.

Voluntary withdrawals who terminated their formal education were very similar to voluntary withdrawals who continued a formal educational program elsewhere.

Students came to college primarily for vocational preparation and selected the community-junior college because of low cost, high academic rating, and proximity.

Students who voluntarily withdrew during or at the end of the freshman year did so in the main either to go into full-time employment or to transfer to another educational institution.

Major differences did not exist between voluntary withdrawals and freshmen who continued in the community-junior college in attitudes toward the community-junior college, social relationships, amount of participation in co-curricular activities, or level of aspiration upon entry into the community-junior college.

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Paul Phillip Sidwell

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TABLE OF CONTENTS

Chapter	Page
I. Introduction and Review of Related Research. . .	1
Statement of the Problem	1
Importance of the Problem.	1
Delimitation of the Study.	2
Definitions of Terms Used.	3
Assumptions Upon Which the Study Was Based .	4
Possible Factors Involved in Freshman Persistence	5
Review of Related Research	6
Hypotheses to Be Investigated.	33
II. Methodology.	35
Sources of Data.	35
Study Sample	35
Data Collection Procedures	38
Data Analysis Procedures	43
III. Findings of the Study.	46
Introduction	46
Magnitude of Withdrawal, Time Withdrawal Occurred, and Post-Withdrawal Occupa- tion.	47
Variables Related to Persistence	49
Analysis of Forty-Six Voluntary Withdrawal Students Separated into Those Who Con- tinued Elsewhere and Those Who Termina- ted Their Educational Program After Withdrawing From Grand Rapids Junior College	64
Variables Not Related to Persistence	70
Analysis of Personal Interview Data.	94
Testing of Hypotheses.	106

Chapter	Page
IV. Summary, Conclusions, and Implications for Further Research	111
The Problem.	111
Delimitation of the Study.	111
Review of Related Research	111
Methodology.	112
Findings	114
Conclusions.	120
Implications for Further Research.	126
Bibliography	129
Appendix	132

LIST OF TABLES

Table		Page
I.	Sex of Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year.	50
II.	Curriculum Completed in High School of Study Sample Freshmen Who Continued Full-time in September, 1960, at Grand Rapids Junior College and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year.	51
III.	Curriculum Completed in High School According to Sex of Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	52
IV.	High School Decile Rank of Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year.	52
V.	High School Decile Rank According to Sex of Study Sample Freshmen Who Continued Full-time in September, 1960, at Grand Rapids Junior College and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	54
VI.	Educational Plans of Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year.	55

Table		Page
VII.	Educational Plans of Study Sample Freshmen by Sex	56
VIII.	Curriculum Enrolled in September, 1959, of Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year.	56
IX.	Curriculum Enrolled in September, 1959, by Sex of Study Sample Freshmen	58
X.	First Semester Grade Point Average of Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	59
XI.	First Year Grade Point Average of Study Sample Freshmen Who Continued in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	60
XII.	Enrollment in Remedial English of Study Sample Freshmen Who Continued in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	61
XIII.	Enrollment in Remedial English by Sex of Study Sample Freshmen Who Continued Full-time in September, 1960, in Grand Rapids Junior College, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	62
XIV.	Total Number of Remedial Courses Enrolled in for Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	63

XV.	Total Number of Remedial Courses Enrolled in According to Sex for Study Sample of Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	63
XVI.	Curriculum Completed in High School of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College	64
XVII.	High School Decile Rank of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College	65
XVIII.	Sex of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College	66
XIX.	Educational Plans of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College.	66
XX.	Curriculum Enrolled in September, 1959, of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College	67
XXI.	First Semester Grade Point Average and First Year Grade Point Average of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College	68
XXII.	Enrollment in Remedial English of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College . . .	69

XXIII.	Total Number of Remedial Courses Enrolled in of Voluntary Withdrawals Who Continued Elsewhere or Terminated Their Educational Program After Withdrawing From Grand Rapids Junior College	69
XXIV.	High School Attended of Study Sample Freshmen Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	73
XXV.	Certainty of Going into Specialized Training After High School of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year. . .	74
XXVI.	Plans Made for Attending College Late in the Senior Year of High School of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year.	75
XXVII.	Vocational Choice as Determined Late in the Senior Year of High School of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year.	76
XXVIII.	Siblings Attendance in College of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year.	76
XXIX.	Total Number of Children in the Family of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year	77
XXX.	Parents' Educational Aspiration for Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year	78

XXXI.	Parents' Plans for Financing Their Children's Education Beyond High School of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year.	78
XXXII.	Educational Attainment of Father of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year	79
XXXIII.	Educational Attainment of Mother of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year	80
XXXIV.	Enrollment in Remedial Reading of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year	80
XXXV.	Test Results of Students Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew or Were Dismissed During or at the End of the Freshman Year.	81
XXXVI.	Number of Hours Spent Per Week in Outside Paid Employment of Interviewees Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Withdrew During or at the End of the Freshman Year.	85
XXXVII.	Number of Hours Spent Per Week in Participation in the Junior College Co-Curricular Activities Program of Interviewees Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year.	86
XXXVIII.	Participation and Non-Participation in Co-Curricular Program of Interviewees Who Continued Full-time in Grand Rapids Junior College, September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year. . .	87

XXXIX.	Degree of Satisfaction With the Co-Curricular Activities Program of Interviewees Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year.	88
XL.	Attitude Toward Quality of Instruction Received at Grand Rapids Junior College of Interviewees Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year	89
XLI.	Attitude Toward the Ease With Which One Could Talk With Instructors of Interviewees Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year	90
XLII.	Attitude of Interviewees Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year Toward Achievement of Goals.	90
XLIII.	Attitude of Interviewees Who Continued Full-time in Grand Rapids Junior College in September, 1960, and Who Voluntarily Withdrew During or at the End of the Freshman Year Toward the Adequacy of Junior College Curricula in Comparison to Other Colleges and Universities in the State and Other Means of Obtaining Vocational Training of the Terminal-Technical Nature	93
XLIV.	Age of Continuer and Voluntary Withdrawal Interviewees	95
XLV.	Race of Continuer and Voluntary Withdrawal Interviewees	95
XLVI.	Marital Status of Continuer and Voluntary Withdrawal Interviewees.	95
XLVII.	Sex of Continuer and Voluntary Withdrawal Interviewees	96
XLVIII.	Junior College Curriculum Enrolled in Freshman Year of Continuer and Voluntary Withdrawal Interviewees	96

XLIX.	Occupation of Thirty-Six Voluntary Withdrawal Interviewees in the Fall, 1960	97
L.	Sex of Voluntary Withdrawals Who Continued An Educational Program Elsewhere and Who Terminated Formal Education.	103
LI.	Curriculum of Voluntary Withdrawals Who Continued an Educational Program Elsewhere and Who Terminated Formal Education.	103

LIST OF FIGURES

Figure	Page
I. Schematic Presentation of Study Sample Sub-Groups.	37

LIST OF APPENDICES

	Page
APPENDIX A Card Number One Layout	133
APPENDIX B Card Number Two Layout	134
APPENDIX C Card Number Three Layout	135
APPENDIX D Student Interview Forms.	136
APPENDIX E Postcard and Telephone Inquiry	144
APPENDIX F Telephone Statement.	147
APPENDIX G List of Variables Studied.	148

CHAPTER I

INTRODUCTION AND REVIEW OF RELATED RESEARCH

I. STATEMENT OF THE PROBLEM

The problem of student persistence in post-high school educational institutions has in recent years received the increased attention of educators and laymen alike. Each year large numbers of freshmen enroll in public community-junior colleges and subsequently withdraw without completing an associate degree, diploma, or certificate program.

The purpose of this study was to investigate the persistence of full-time students through the freshman year and into the beginning of the sophomore year in a metropolitan, public community-junior college. The study was concerned with determining the reasons for withdrawal and whether significant differences existed in selected variables between freshmen who persisted and freshmen who withdrew.

II. IMPORTANCE OF THE PROBLEM

The welfare of a democratic society is dependent to a great extent upon the understandings and insightful judgments of the individuals who comprise the society. The education of each individual to the fullest of his ability is, therefore,

singularly important. This is true not only for each individual's optimal development and performance but also for the continued development of the democratic society as a whole.

There is a growing realization that America's waste of human talent must not continue. The conservation of human resources has come to be recognized as a major concern of our time.

The failure of large numbers of freshmen to continue in community-junior college programs is intimately related to the problem of development and utilization of human resources. Few empirical studies dealing with persistence of students in public community-junior colleges are reported. If the public community-junior college is to meet effectively the objectives set for the comprehensive community college, every effort should be made to insure the continuance of students who can profitably pursue an educational program beyond the high school.

If the factors involved in freshman persistence in the community-junior college can be determined, appropriate steps in curriculum development and provision of comprehensive student personnel services in the college can then be taken. The ramifications of these findings would likewise be important for vocational guidance and educational planning in secondary schools.

III. DELIMITATION OF THE STUDY

The study was limited to the investigation of June, 1959, Grand Rapids city high school graduates who enrolled

for twelve or more credit hours in Grand Rapids Junior College in September, 1959. The study was further limited to the investigation of these students covering the period September, 1959, through September, 1960.

This group was selected as the study sample inasmuch as data on several of the variables in which the researcher was interested had been previously obtained for these students only while they were still attending high school. The researcher was specifically interested in studying persistence of students who had matriculated on a full-time basis during the freshman year and into the beginning of the second year in the community-junior college.

IV. DEFINITIONS OF TERMS USED

Post-high school educational needs. The needs for both specialized occupational training and general education at a level higher than high school offerings.

Continuance. Throughout the report of this investigation the term "continuance" shall be interpreted as meaning the enrollment in twelve or more credit hours each semester in attendance. The term shall be further interpreted as meaning that the student remained in attendance for both semesters during the 1959-1960 academic year and re-enrolled for twelve or more credit hours in September, 1960.

Withdrawal. Throughout the report of this investigation, the term "withdrawal" shall be interpreted as meaning

the enrollment in twelve or more credit hours in September, 1959, and the termination of attendance voluntarily or by dismissal at any time between September, 1959, and June, 1960. The term shall be further interpreted as meaning that the student did not re-enroll for twelve or more credit hours in September, 1960, in Grand Rapids Junior College.

Full-time. Throughout the report of this investigation the term "full-time" shall be interpreted as meaning the enrollment in twelve or more credit hours.

V. ASSUMPTIONS UPON WHICH THE STUDY WAS BASED

The following assumptions were made under which this study was conducted:

1. The findings of this study would lend themselves to generalization about graduates from Grand Rapids public city high schools who enroll full-time in Grand Rapids Junior College.

2. The implications of this study for curriculum and student personnel services could be applied to non-city high school graduates who enroll in Grand Rapids Junior College full-time as well.

3. A one-year follow-up study could provide significant information to assist the Junior College in planning to more adequately meet the educational needs of full-time freshmen.

VI. POSSIBLE FACTORS INVOLVED IN FRESHMEN PERSISTENCE

Speculation as to possible causative factors in community-junior college freshmen persistence was deemed appropriate to this study. The researcher, therefore, submits the following possibilities, developed on a subjective basis, to be substantiated or refuted upon the basis of empirical research reported in the literature and/or upon the basis of the findings of this study. It is recognized that other equally plausible or important possibilities may well exist. The possibilities presented here, in the opinion of the researcher, served as a logical baseline or point of departure for empirical investigation into freshman persistence in the community-junior college.

Freshman persistence may be a function of the high school from which the student graduated, the high school course of study pursued, post-high school educational plans, academic performance in high school, or vocational choice as determined while enrolled in high school.

Family influences may play a major role in the freshman's decision to continue in or withdraw from the community-junior college. The number of children in the family, parents' educational aspirations for the student, parents' plans for financially assisting the student in his post-high school education, educational attainment of the parents, or prior attendance in college of other children in the family may

serve to stimulate or retard continuance in community-junior college educational programs.

Freshmen who withdraw may possess less academic ability as measured by a standardized test battery, perform at a lower academic level in the community-junior college, enroll in one or more curriculums to a greater extent, or require more remedial course work than freshmen who persist.

Inasmuch as a large percentage of public community-junior college students work part-time while attending college, the extent of outside paid employment may contribute to withdrawal.

Freshmen not involved or only minimally involved in the community-junior college co-curricular program may withdraw to a greater extent than freshmen who participate more actively.

Freshmen who withdraw may have developed negative attitudes toward the community-junior college resulting in discontinuance in the college.

Students who withdraw during or at the end of their freshman year may invest less importance in the completion of a community-junior college program as a means to attaining their goals and/or may have lower levels of aspiration than freshmen who continue in the community-junior college.

VII. REVIEW OF RELATED RESEARCH

On both a national and an individual institutional basis, much is known about the quantitative aspects of

college attrition in four-year institutions. A large body of published material is not available, however, on student persistence in public community-junior colleges. Although more studies have undoubtedly been made than is suggested by the literature, the extent of knowledge concerning community-junior college attrition and factors contributing to it is very limited.

The understanding of the dynamics involved in the qualitative aspects of attrition, in both two- and four-year institutions, is even more limited. Most of the research dealing with student persistence has been of the descriptive, normative type. A notable weakness in both national and institutional studies of college student persistence has been the lack of separation of students who voluntarily withdrew from those who were dismissed by the institution.

The review of the related research on college persistence has been grouped into thirteen broad categories:

- (1) magnitude of student attrition, (2) transfer to other institutions, (3) time of withdrawal, (4) reasons for going to college, (5) reasons for dropping out of college, (6) occupational choice, (7) withdrawal and reaction to college, (8) withdrawal and test scores, (9) withdrawal and academic performance in college, (10) withdrawal and academic performance in high school, (11) withdrawal and outside employment, (12) withdrawal and participation in co-curricular activities, and (13) withdrawal and sex and marital status.

Magnitude of student attrition

McNeeley's study of college student mortality, published in 1937, indicated a net loss of approximately 45 per cent of the students who registered for a degree in 1931. In that study it was found that the highest percentage of the students left because of dismissal for failure in work and the next largest percentage because of financial difficulties.¹

Iffert has made the most recent and comprehensive national study of persistence and withdrawal in higher education.

Iffert contended:

For a long time educators have been aware of the principal factors which govern the retention, transfer, and withdrawal of students, but no systematic and comprehensive analysis has heretofore been available to show the impact of these factors in combination. Casualties usually do not occur solely because of a poor admissions policy, an unsuitable curriculum, inadequate counseling, indifferent instruction, or poor physical facilities. Neither is the failure of students usually due alone to low scholastic aptitude, lack of individual and family motivation, or insufficient funds to pay the costs of attending college. Remedial measures require the skillful management of this complex of interacting factors.²

¹John H. McNeeley, College Student Mortality, United States Department of Interior, Office of Education, Bulletin 1937, No. 11 (Washington: Government Printing Office, 1937).

²Robert E. Iffert, Retention and Withdrawal of College Students, United States Department of Health, Education, and Welfare, Office of Education, Bulletin 1958, No. 1 (Washington: Government Printing Office, 1958), p. 111.

Iffert's study was conducted by the Office of Education and involved full-time, unmarried, native, non-veteran freshmen who entered in the fall of 1950 in 147 colleges. Approximately 13,700 undergraduate students were involved in the study. Analysis of the data must be considered in light of the effect of the Korean War on persistence. The study covered universities, technological institutions, liberal arts colleges, teachers colleges, and junior colleges. Data on the junior college group is not considered representative although a representative sample of four-year colleges and universities was obtained.

Iffert found that "by the end of the second year, 39.6 percent of the men and 46.1 percent of the women had left."³ A total of 42.3 per cent of all students had dropped out of the institution of first registration by or at the end of the second year.⁴

Eells found that community-junior college sophomore enrollment for the 1954-55 academic year was only 45 per cent of freshmen enrollment. Sophomore enrollment was 42.7 per cent in public community colleges and 57 per cent in private junior colleges. Michigan community-junior colleges had 42 per cent as many sophomores as freshmen.⁵

³Iffert, op. cit., p. 17.

⁴Ibid., p. 16.

⁵Walter Crosby Eells, "Student Mortality in Junior Colleges," Junior College Journal, XXVII (November, 1956), pp. 132-137.

Reynolds, in discussing the freshman-sophomore ratio in community colleges states,

Of interest, also, is the fairly static condition of the percentage of sophomores in public junior colleges in 1931-32 and in 1949-50. This leads to the possibility that 35 percent may be an acceptable criterion for measuring the percentage which the sophomores should be in the total freshman-sophomore enrollment.⁶

Reynolds found that in public junior colleges in 1931 the sophomores equalled 34 per cent of freshmen enrollment and that in 1949 the same ratio held.

Another author argues that the apparent extensive loss between community-junior college freshmen and sophomore enrollment does not take into account one-year programs, transfers to other institutions, and the large part-time enrollment which may inflate the freshman classification, since it takes more than two semesters to attain sophomore classification.⁷

Henninger, in his recent comprehensive study of technical institutes, found a median drop-out of 50 per cent. He feels that the drop-out rate is greatly affected by students' accepting jobs after completing the technical phase of the curriculum without completing the general education requirements. It is interesting to note from his study that a median of 3 per cent of course work

⁶James W. Reynolds, "Responsibility for Drop Outs," Junior College Journal, XXI (February, 1951), pp. 323-24.

⁷Hymen M. Chausow and William C. Resnick, "The Problem of Drop Outs," Junior College Journal, XXVII (November, 1956), pp. 138-40.

is given over to general education in curriculums currently accredited by the Engineer's Council for Professional Development.⁸

Medsker found in his recent study of community-junior colleges that although two-thirds of the students enrolled in college transfer programs, only one-third actually transferred to senior institutions; only one-third of the students graduated although an undetermined number completed terminal or transfer curriculums without completing all graduation requirements.⁹

Thornton notes that nationally more than 218,000 students were classified as freshmen in the public community-junior colleges in the fall of 1955, but that only approximately 111,000 were classified as sophomores one year later in the fall of 1956. Only 51.3 per cent in the fall of 1956 and 52.1 per cent in the fall of 1957 were listed as sophomores.¹⁰

Since the opening of Orange Coast College in 1948, records have been kept on withdrawals. The results of the analysis of the data compiled indicated that 39 per cent of an entering class would drop out before the school year ended, 15 per cent would not return for the third semester,

⁸Ross G. Henninger, The Technical Institute In America (New York: McGraw-Hill Book Company, Inc., 1959).

⁹Leland L. Medsker, The Junior College: Progress and Prospect (New York: McGraw-Hill Book Company, Inc., 1960), pp. 91 and 97.

¹⁰James W. Thornton, Jr., The Community Junior College (New York: John Wiley and Sons, Inc., 1960), p. 156.

11 per cent would drop out during the second year, and 35 per cent would graduate.¹¹

Smith reported a survival rate to graduation of 60 per cent at Rochester Institute of Technology for the years 1933 through 1939. The programs were three years in duration and were cooperative in nature. The reasons given by Smith for this high persistence were: (1) much individual attention given and stress on counseling, (2) the cooperative nature of curriculums, and (3) the practical orientation of programs.¹²

Lynch analyzed the drop outs of Palm Beach, Pensacola, and St. Petersburg Junior Colleges during the 1957-58 academic year. He found an average drop out rate of 38 per cent for the three schools with freshmen accounting for 86 per cent of the drop outs.¹³

Clark studied the withdrawal rate over a four-year period at San Jose Junior College. He noted that by the beginning of the second semester nearly one-third of the students who had enrolled in the fall had withdrawn, and

¹¹Thornton, op. cit., p. 157.

¹²Leo F. Smith, "Student Survival In A Technical Institute," School Review, LIII (May, 1945), pp. 294-99.

¹³Donald Fryman Lynch, "An Analysis of Drop-Outs in Selected Public Junior Colleges of Florida." Unpublished Doctor's dissertation, 1960. As found in Dissertation Abstracts; vol. 20, no. 8, pp. 3156-7.

that over one-half had withdrawn between the end of the second semester and the beginning of the following year.¹⁴

Los Angeles Valley Junior College analyzed the persistence over a period of five semesters of regular day students who entered as freshmen in September, 1952. A full 75 per cent of the entering group had withdrawn during the period studied. Only 11 per cent of the withdrawals had transferred to four-year institutions.¹⁵

Transfer to other institutions

Iffert found that 10.3 per cent of the students who enrolled as first-time students in four-year institutions in the fall of 1950 transferred to other institutions and that 40 per cent of the transfers had taken place by the fall of 1951. The reasons given for transfer were general dissatisfaction, change in curricular interest, lack of interest in studies, desire to be nearer home, and desire to attend a less expensive institution. Low grades and the size of an institution were additional reasons given for transfer.

Iffert further found that approximately one-third of the respondents who dropped out of the institution of

¹⁴Burton R. Clark, The Open Door College: A Case Study (New York: McGraw-Hill Book Company, Inc., 1960).

¹⁵Los Angeles Valley Junior College, "A Follow-Up Study of 306 Regular Day Students Who Entered Valley College As Freshmen As Of September, 1952, But Who Withdrew From the College After Varying Semesters of Attendance." (Mimeographed.)

first attendance transferred to other institutions and approximately one-fourth transferred and graduated from other institutions.

Medsker found that only one-third of entering community-junior college students transferred. No information is available on a national basis concerning the percentage of junior college drop outs who transfer to other institutions and continue their education.

Los Angeles Valley Junior College found that approximately 30 per cent of the respondents to its follow-up study of drop outs enrolled in other junior colleges, trade schools, industrial institutes, and other institutions.¹⁶

Time of withdrawal

Iffert found that 27.4 per cent of men and 27.0 per cent of women had left by the end of the first year. But 47.7 per cent of the men who left during or at the end of the first year did so during or at the end of the first registration period while only 26.7 per cent of the women who left during or at the end of the first year did so before enrolling in the second enrollment period.¹⁷

Iffert further stated that:

Nearly 31 percent of the students who entered publicly controlled institutions of higher education

¹⁶Los Angeles Valley Junior College, op. cit.

¹⁷Iffert, op. cit., p. 17.

in the fall of 1950 withdrew during or at the end of the first year. The corresponding percentage for privately controlled institutions is 22.4.¹⁸

"By the end of the second year," according to Iffert, "39.6 percent of the men and 46.1 percent of the women had left."¹⁹ The end of the second year produced a total drop out of 42.3 per cent of those enrolled as freshmen in the fall of 1950.

Iffert demonstrated that the first year is the most critical period in withdrawal inasmuch as 27.3 per cent dropped out during or at the end of the first year as compared with a drop-out rate of 28.3 per cent during the sophomore, junior, and senior years.²⁰

Studies summarized elsewhere point up the fact that "the second semester or the second and third quarter are the most critical period."²¹

The Orange Coast College study revealed that 75 per cent of the total number of drop outs consisted of first and second semester students.²²

Clark's study of San Jose Junior College student persistence revealed that nearly one-third of the students

¹⁸Iffert, op. cit., p. 17.

¹⁹Ibid.

²⁰Ibid., p. 100.

²¹Chester W. Harris (ed.), Encyclopedia of Educational Research, Third Edition, (New York: The Macmillan Company, 1960).

²²Thornton, op. cit., p. 157.

enrolling in the fall had withdrawn by the beginning of the second semester, and that over one-half withdrew between the end of the second semester and the beginning of the sophomore year.²³

Los Angeles Valley Junior College found that 32 per cent of its dropouts occurred during or after one semester, an additional 36 per cent of the withdrawals occurred during or after two semesters, 10 per cent occurred during or after three semesters, 11 per cent occurred during or after four semesters, and 11 per cent occurred during or after five semesters. Thus, 68 per cent of all withdrawals took place during or at the end of the freshman year.²⁴

Reasons for going to college

Iffert pointed out:

The hypothesis that the stronger a student's motivation, the better are his chances of remaining in college has been advanced by many writers and has been supported by evidence. Every effort in this study to find an association of sufficient magnitude to support the hypothesis by comparing the ratings of reasons for going to college and the records of persistence has met with failure.²⁵

He further noted:

Although the "reasons for going to college" part of the study did not result in the development of an efficient instrument for measuring student motivation, a contribution has been made by the discovery that responses to the "reason" items are not directly

²³Clark, op. cit.

²⁴Los Angeles Valley Junior College, op. cit.

²⁵Iffert, op. cit., p. 29.

related to persistence.²⁶

He concluded that:

The failure to find a significant relationship between students' ratings of the importance of certain reasons for going to college and the length of their stay in colleges does not disprove the theory that motivation of students and their performance in college are positively related.²⁷

Iffert asked the students in his study to rate the importance of twenty-five reasons for going to college. Male students' ratings from highest to lowest were in rank order: (1) occupational reasons, (2) academic reasons, (3) traditional reasons, (4) social service reasons, and (5) personal reasons. Female students' ratings from highest to lowest were: (1) academic reasons, (2) occupational reasons, (3) personal reasons, (4) traditional reasons, and (5) social service reasons.

Iffert summarizes these findings thus:

Only university students as a group rated the desire to prepare for a better paying job as the most important reason for going to college. Second in importance to university students was a compelling interest in a particular field in which they wanted to specialize. The second reason was ranked first in average rating by students in the other types of institutions and the better pay motive ranked third. University students as a group ranked the need of a college degree for the kind of work they wanted to do third in order of importance and students in other types of institutions ranked this need second.²⁸

Medsker found that data relating to reasons for entering community-junior colleges were not readily available.

²⁶Iffert, op. cit., p. 33.

²⁷Ibid., p. 34.

²⁸Ibid., p. 101.

The researcher likewise found no empirical research reported.

Reasons for dropping out of college

Iffert's study revealed the following top five reasons given by men for withdrawing: (1) enlistment for military service, (2) financial, (3) lack of interest in studies, (4) discouragement by low grades, and (5) drafted into the military service. Women gave the following reasons in rank order: (1) planned to be married soon, (2) took a full-time job (this was closely related to marriage plans also), (3) financial, (4) family financial reasons, and (5) lack of interest in studies.

Iffert summarizes these findings as follows:

Reasons for going to college and reasons for leaving college had a common characteristic, namely, complexity. Few students identified an overriding reason for either action. The discovery of some semblance or order and design in the reasons for leaving college but practically nothing systematic in the reasons for going to college is frustrating to the investigator.²⁹

Lynch's study of three public junior colleges in Florida produced the following list of reasons for withdrawal in rank order: (1) low grades, (2) loss of interest, (3) financial, (4) transferring to another institution, (5) take full-time job, (6) marriage, (7) home circumstances, (8) moving from the area, (9) military service, and (10) health.³⁰

²⁹Iffert, op. cit., p. 98.

³⁰Lynch, op. cit.

Mohs' study of drop outs at Pasadena City College revealed the following list of reasons for withdrawal in rank order: (1) financial, (2) full-time job, (3) health, (4) poor grades, (5) family responsibilities, (6) change in goal, (7) not interested in school, (8) marriage, (9) armed services, and (10) course wanted not offered.³¹

Medsker studied reasons for withdrawal of students enrolled in twenty two-year colleges and found the following reasons in rank order of importance: (1) full-time employment, (2) personal and health, (3) moved or transferred, (4) nonattendance, (5) academic or faculty action, (6) to enter armed forces, (7) not interested in school or dissatisfied, (8) financial, (9) marriage, and (10) educational goals completed.³²

Matson found employment and finances were the most frequently given reasons for withdrawal.

Dressel, commenting on reasons for dropouts in the community-junior college, noted that some of the reasons may lie in finances, poor academic preparation in high school and/or poor academic performance in the junior college, and unrealistic educational plans. He suggested an additional reason might involve apathy toward study in those students whose original motivation for going to college was low.

³¹Milton C. Mohs, "A Study of Dropouts from Pasadena City College," Junior College Journal, XXVII (December, 1956), pp. 206-10.

³²Medsker, op. cit., p. 48.

The nature of terminal programs might be another contributing factor. When a student feels he has obtained the desired job skills for the job he wants, withdrawal may frequently take place. Dressel commented, "perhaps the ready assumption that discontinuance means that the student has acquired little of significance needs to be revised to be applicable to junior colleges--particularly the terminal vocational programs."³³

Dressel further pointed out "many drop-outs, perhaps two-thirds of them, result from justifiable reasons, such as transfer, ill health, or permanent employment."³⁴

Thornton states:

In addition to scholastic discouragement and failure, withdrawals occur because of ill health, financial need, family moving away, finding employment, too much outside work, illness at home, lack of transportation, marriage, and need to work more to keep up car payments.³⁵

Occupational choice

Enrollment in the fall of 1956 in seventy two-year institutions revealed that one-third were pursuing terminal programs while two-thirds were enrolled in transfer curricu-
lums.³⁶

³³Nelson B. Henry (ed.), The Public Junior College, Fifty-fifth Yearbook of the National Society for the Study of Education, Part I (Chicago, Illinois: University of Chicago Press, 1956), p. 55.

³⁴Ibid., p. 56.

³⁵Thornton, op. cit., p. 157.

³⁶Medsker, op. cit., p. 107.

Medsker reported a total of 79 different terminal-technical programs offered in the 243 institutions that completed the original check list in his study. However, many of these offerings were given by only a few colleges. Business curriculums were the most frequently offered and contained the largest enrollment. Business enrollment approximated the total enrollment in all other terminal fields. Curriculums related to the engineering field were found to be second both in frequency of offering and in enrollment. He further found that the top six transfer curriculums in rank order were: (1) engineering; (2) liberal arts; (3) education; (4) business; (5) medical, pre-medical, and medical technician; and (6) general and miscellaneous. These totaled 80 per cent of all enrollments in the transfer curriculums.³⁷

Lubick studied occupation choice of students entering Long Beach City College and found that 34 per cent were undecided and of those who listed occupational objectives 65 per cent limited their choice to four occupation fields: teaching, engineering, clerical, and medical.³⁸

Redemsky's study of Benton Harbor and Jackson High School students corroborates Lubick's study in that high school students were primarily pointed toward professional

³⁷Medsker, op. cit., pp. 103-108.

³⁸Emil E. Lubick, "Vocational Objectives of Entering College Students," Junior College Journal, XXV (February, 1955), pp. 319-26.

occupations only and there was a need for better counseling in high schools particularly in reference to occupational information and requirements.³⁹

Matson found that more students in the withdrawal group chose clerical occupations or were undecided. Educational plans were for shorter collegiate training in the withdrawal group.⁴⁰

Withdrawal and reaction to college

Iffert summarizes his findings in this area thus:

In conclusion, then, it can be said that the students who withdrew from institutions of higher education before graduation did not directly or by inference attribute their withdrawal to outstanding deficiencies in the facilities and services of the institutions in which they first registered. To be sure, many students who withdrew rated many college facilities and services as very unsatisfactory, but the percentage of those giving this rating was seldom as high as it was for students who did not withdraw.⁴¹

Iffert concluded that withdrawal is associated not with dissatisfactions as such, but with the inability, or unwillingness, to endure dissatisfactions.⁴²

³⁹Louis William Redemsky, "The Educational and Vocational Plans of Senior High School Students with Special Reference to the Occupational Pattern of the Community, the Occupations of High School Graduates, and the Terminal Curriculum of the Junior College." Unpublished Doctor's dissertation, 1952. As found in Dissertation Abstracts; vol. 12, p. 523.

⁴⁰Jane E. Matson, "Characteristics of Students Who Withdrew from a Public Junior College." Unpublished Doctor's dissertation, 1955. As found in Dissertation Abstracts; vol. 15, pp. 1787-88..

⁴¹Iffert, op. cit., p. 51.

⁴²Ibid.

The Los Angeles Valley Junior College study revealed that, of those responding, 95 per cent were satisfied with the college offerings and services, 90 per cent were satisfied with their instructors, and approximately 80 per cent felt their studies helped them in their present work and in other ways.⁴³

Jones found junior college dropouts studied at Highland Park Junior College felt the quality of instruction received had been good; the curriculum, co-curricular program, and counseling were considered satisfactory.⁴⁴

Withdrawal and test scores

Thornton reported the findings at Orange Coast College indicated that academic aptitude scores were of no value in predicting dropouts.⁴⁵

Matson also found no significant difference in academic aptitude between dropouts and non-dropouts at East Contra Costa Junior College.⁴⁶

In discussing academic aptitude as measured by current tests, Medsker points out:

⁴³Los Angeles Valley Junior College, op. cit.

⁴⁴Paul Henry Jones, "A Follow-Up Study of the Graduates and Drop-Outs Enrolled in the Highland Park Junior College for the School Years 1953-54 through 1955-56." Unpublished Doctor's dissertation, 1959. As found in Dissertation Abstracts; vol. 19, pp. 3189-90.

⁴⁵Thornton, op. cit., p. 157.

⁴⁶Matson, op. cit.

The available facts indicate that the average academic aptitude level of students entering two-year colleges is somewhat below that of those who enter four-year colleges. However, there is a wide range of abilities among two-year college students, and many of them are superior in ability to many students in four-year institutions.⁴⁷

Medsker further points out studies have shown transfer students as a group score higher than terminal students as a group. He notes, however, that there is great overlap between scores made by students in transfer and terminal curricula. Junior colleges which enroll superior transfer students also enroll high calibre terminal students.⁴⁸

Medsker found a very small difference between men and women on aptitude test scores.⁴⁹ He concluded that:

Both the overlap among students in the two-year and four-year colleges and the differences among individual institutions indicate the incorrectness of the generalization that students in four-year colleges are always superior to students in two-year colleges. Also, it is incorrect to generalize that individual students enrolled in transfer programs are always more able than those enrolled in terminal programs.⁵⁰

Reporting a study of graduates and withdrawals in ten Minnesota junior colleges, Medsker points out that graduates' ability, as measured by high school rank and test

⁴⁷Medsker, op. cit., p. 30.

⁴⁸Ibid., pp. 33-36.

⁴⁹Ibid., p. 40.

⁵⁰Ibid.

scores, was higher than withdrawals' although there was a great overlap between the two groups. Nevertheless, he believes it is the less able student who tends to withdraw from community-junior colleges.⁵¹

Jones found no significant differences between males and females in learning ability.⁵²

Withdrawal and academic performance in college

Matson found no significant difference in grade point average between the withdrawal and continuation groups.

Williams attempted to isolate factors that would identify potential non-graduates at Olympic Community College. He found eight factors were related to non-graduation. The factors involving academic performance were: (1) grade point average at community college below 2.00, (2) average academic class load less than fourteen quarter hours, and (3) proposed major in art, general, or business administration.⁵³

Jones found that males achieved at a lower level than females at Highland Park Junior College. He also found that dropouts were unsuccessful academically and stated that part-time jobs may have been responsible.⁵⁴

⁵¹Medsker, op. cit., p. 99.

⁵²Jones, op. cit.

⁵³Robert D. Williams, "Student Mortality in the Academic Programs at Olympic Community College." Unpublished Doctor's dissertation, 1955. As found in Dissertation Abstracts; vol. 15, pp. 2445-46.

⁵⁴Jones, op. cit.

Withdrawal and academic performance in high school

Matson found high school graduation was significantly related to college persistence in that more non-graduates from high school were found in the college withdrawal group. She also found high school curriculum significantly related in that fewer college preparatory students were found in the withdrawal group.

Jones' study at Highland Park Junior College revealed that dropouts had a low level of achievement in high school.

Williams' study of factors related to non-graduation at Olympic Community College revealed the following factors involving academic performance in high school: (1) a high school grade point average below 2.00, (2) any "F" grades in high school academic subjects, and (3) one year or less between high school graduation and entrance into community college.⁵⁵

Withdrawal and outside employment

Iffert contends that lack of financial resources is a major cause of withdrawal or transfer. But he also found that earning part or all of college expenses did not seriously affect persistence in college.

Thornton notes that data are not available on a national basis on the employment of community-junior college students while attending school. But it is known that a large number

⁵⁵Williams, op. cit.

of community-junior college students do work while attending college.

Jones found that the effect of outside work on achievement is significant and negative. Few of the students studied were self-supporting; rather, they were working to buy things their parents would not.⁵⁶

Withdrawal and participation in co-curricular activities

Iffert found that about one-third of the students did not participate in any organized co-curricular activities. The median number of hours spent per week ran between five and six for those students who did participate. He found that persistence to graduation was not related to the amount of co-curricular participation, although non-graduates devoted more time to co-curricular activities during the first year than did graduates.⁵⁷

Thornton indicated that only one-half of the students in public junior colleges participate in co-curricular activities.⁵⁸

Williams found that lack of participation in community-junior college co-curricular activities was related to non-graduation.⁵⁹

⁵⁶Jones, op. cit.

⁵⁷Iffert, op. cit., p. 80.

⁵⁸Thornton, op. cit., p. 262.

⁵⁹Williams, op. cit.

Withdrawal and sex and marital status

Iffert found little difference between the percentages of men and women students who dropped out of the institution of first enrollment by the end of the year. However, by the end of the second year more women had dropped out than men (39.6 per cent of men and 46.1 per cent of women).⁶⁰

Medsker found that a median of 36 per cent of men and 30 per cent of females transferred; 32 and 33 per cent of males and females respectively were graduated; 58 and 50 per cent of males and females who graduated transferred respectively.⁶¹

Matson found that sex and marital status were not related to withdrawal.

Areas of general agreement

The magnitude of college attrition in both two and four-year institutions is a matter demanding a high priority in the considerations and decisions of collegiate institutions in the future. Studies have shown that the first two years of college are, in reality, terminal for two-thirds of community-junior college students and more than 40 per cent of four-year institution students. Sophomore enrollment in community-junior colleges is approximately one-half freshmen enrollment; however, this may not reflect an actual attrition

⁶⁰Iffert, op. cit., p. 17.

⁶¹Medsker, op. cit., p. 94.

of 50 per cent when viewed in light of the nature of comprehensive public community-junior college programs.

The critical period in withdrawal is the first year for both two- and four-year schools. The vast majority of withdrawals have taken place by the end of the first year in community-junior colleges and by the end of the second year in four-year colleges.

Vocational objectives are most important in males' reasons for going to college and are important in females' reasons as well.

Reasons lying behind withdrawal are complex and are intimately entwined with students', parents', and peers' values, backgrounds, goals, finances, interests, perceptions, and other non-intellective factors as well as academic performance in college per se. The stated reasons may not actually be the real causes of withdrawal.

A few curriculums attract the majority of college entrants in both two- and four-year institutions. The emphasis in community-junior colleges is still upon baccalaureate degree college-parallel programs. Studies have demonstrated that as many as 50 per cent of the students in four-year institutions make one or more changes in their major field of study.

Studies reporting respondents' reactions to the institutions from which they withdrew indicate that dropouts are no more critical than are students who persist. However,

one must keep in mind the possible response bias in such studies.

There is a great deal of overlap in academic aptitude, as measured by tests and rank in high school, of students who persist and who withdraw in both two- and four-year institutions. There is, likewise, much overlap of ability in students who attend two- and four-year institutions and who pursue terminal and transfer curriculums. It has also been repeatedly demonstrated that many capable students withdraw.

There are no significant sex differences in academic aptitude although women as a group tend to perform at a higher level than males.

Dropouts as a group tend to have a lower level of achievement in high school.

Working part-time does not adversely affect persistence or academic performance of students in four-year institutions.

A large segment of student bodies in both two- and four-year institutions do not participate in co-curricular activities.

Areas of disagreement

Several studies have shown no significant difference between dropouts and continuers in academic aptitude while other studies do demonstrate such a difference on group bases.

Although a number of studies have revealed that dropouts do not perform as well academically as students who persist, at least one study conducted in a public community-junior

college revealed no significant difference in this regard between the two groups.

A national study found that persistence was not related to participation in co-curricular programs whereas studies in individual two and four-year institutions have revealed such a relationship.

The results of studies investigating withdrawal by sex run the gamut from results showing little or no significant difference to showing a greater withdrawal by men to showing a greater withdrawal by women.

There is no doubt considerable validity in the contention that different results were obtained because the designs of the studies varied. It would also seem appropriate to consider differences as feasible due to differences in type of institutions and student bodies involved.

Such conflicting findings suggest the need for more comprehensive studies in these areas to determine whether universal patterns exist, whether there are patterns for particular types of institutions, or whether these areas do in fact vary as dictated by the peculiarities of individual institutions.

Some unanswered questions

1. Are there significant differences between withdrawals when they are separated into those who voluntarily withdrew and those who were dismissed? Very few studies have attempted to arrive at this determination.

2. What percentage of community-junior college drop-outs transfer and how many of these ultimately graduate from a four-year institution, two-year institution, business college, or other formal training program?

3. How many community-junior college students change their major field of study after matriculating in a program at the community-junior college? How many of these graduate, transfer, and transfer and graduate?

4. What effect does working part-time and participation in co-curricular activities have on academic performance in community-junior college?

5. What percentage, on a national basis, of community-junior college students complete two full years in either transfer or terminal curricula but do not graduate?

6. What is the withdrawal rate resulting in discontinuance of schooling altogether of freshmen entering full-time programs in community-junior colleges?

7. What is the withdrawal rate nationally of adults entering credit programs on a part-time basis?

8. Is there a significant difference in withdrawal rate between community-junior college freshmen who enroll full-time and freshmen who enroll part-time?

9. What percentage of those who drop out of community-junior college ultimately return to the community-junior college to pick up where they left off?

10.. Is course of study pursued in high school related to withdrawal from community-junior college?

11. Are vocational expectations of high school seniors related to withdrawal from community-junior college?

12. Are parents' educational plans for their children related to withdrawal from community-junior college?

13. Is occupation and formal education of parents related to withdrawal from community-junior college?

14. Is academic aptitude, as measured by test scores, and high school academic performance related to withdrawal from community-junior college?

15. Is enrollment in remedial courses related to withdrawal from community-junior college?

16. Are attitudes toward the community-junior college and level of aspiration related to withdrawal from community-junior college during the freshman year?

17. Do dropouts have a shorter time perspective and a stronger need to satisfy immediate wants than those who persist in the community-junior college?

VIII. HYPOTHESES TO BE INVESTIGATED

The hypotheses to be investigated in this study were generated from the researcher's subjective speculations as to withdrawal causation and from supportive, contradictory, or the lack of empirical findings reported in the literature.

Hypothesis I: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to high school preparation.

Hypothesis II: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to family influences.

Hypothesis III: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to Grand Rapids Junior College academic performance.

Hypothesis IV: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in amount of participation in college-sponsored co-curricular activities.

Hypothesis V: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in amount of outside paid employment.

Hypothesis VI: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to attitudes toward Grand Rapids Junior College.

Hypothesis VII: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to level of aspiration.

CHAPTER II

METHODOLOGY

I. SOURCES OF DATA

The data upon which this study was based was obtained from four sources: (1) a study of educational plans of high school seniors and their parents in an eight county area surrounding the city of Grand Rapids, Michigan, conducted in the spring of 1959 by Michigan State University;¹ (2) a follow-up study of the educational and/or occupational activities of the June, 1959, graduates from the Grand Rapids public city high schools;² (3) official Grand Rapids Junior College records; and (4) individual interviews.

II. STUDY SAMPLE

A total of three-hundred and sixteen students comprised the study sample of freshmen who enrolled full-time in Grand Rapids Junior College in September, 1959. The three-hundred

¹John X. Jamrich, A New College, A Report to the Legislative and Citizens Committees on the Eight-County Study of Higher Education Needs in Allegan, Barry, Ionia, Kent, Montcalm, Muskegon, Newaygo, and Ottawa Counties, Center for the Study of Higher Education, Michigan State University (East Lansing: December, 1959).

²Ferris N. Crawford, "A Study of Selected Factors Relating to College Enrollment of Public High School Graduates Within Six Months After Graduation." (Unpublished doctoral dissertation, Michigan State University, East Lansing, 1960.)

and sixteen selected were those students who had participated in both the Michigan State University spring, 1959, study and the follow-up study conducted by Crawford six months later. All three-hundred and sixteen were 1959 graduates of Grand Rapids public city high schools. An additional twenty-nine 1959 graduates of Grand Rapids public city high schools who enrolled in Grand Rapids Junior College were eliminated from the study because they had enrolled in the registered nursing curriculum operated in conjunction with local hospitals, had enrolled in the practical nursing curriculum, had not actually enrolled in the junior college according to official records, or were classified as sophomores.

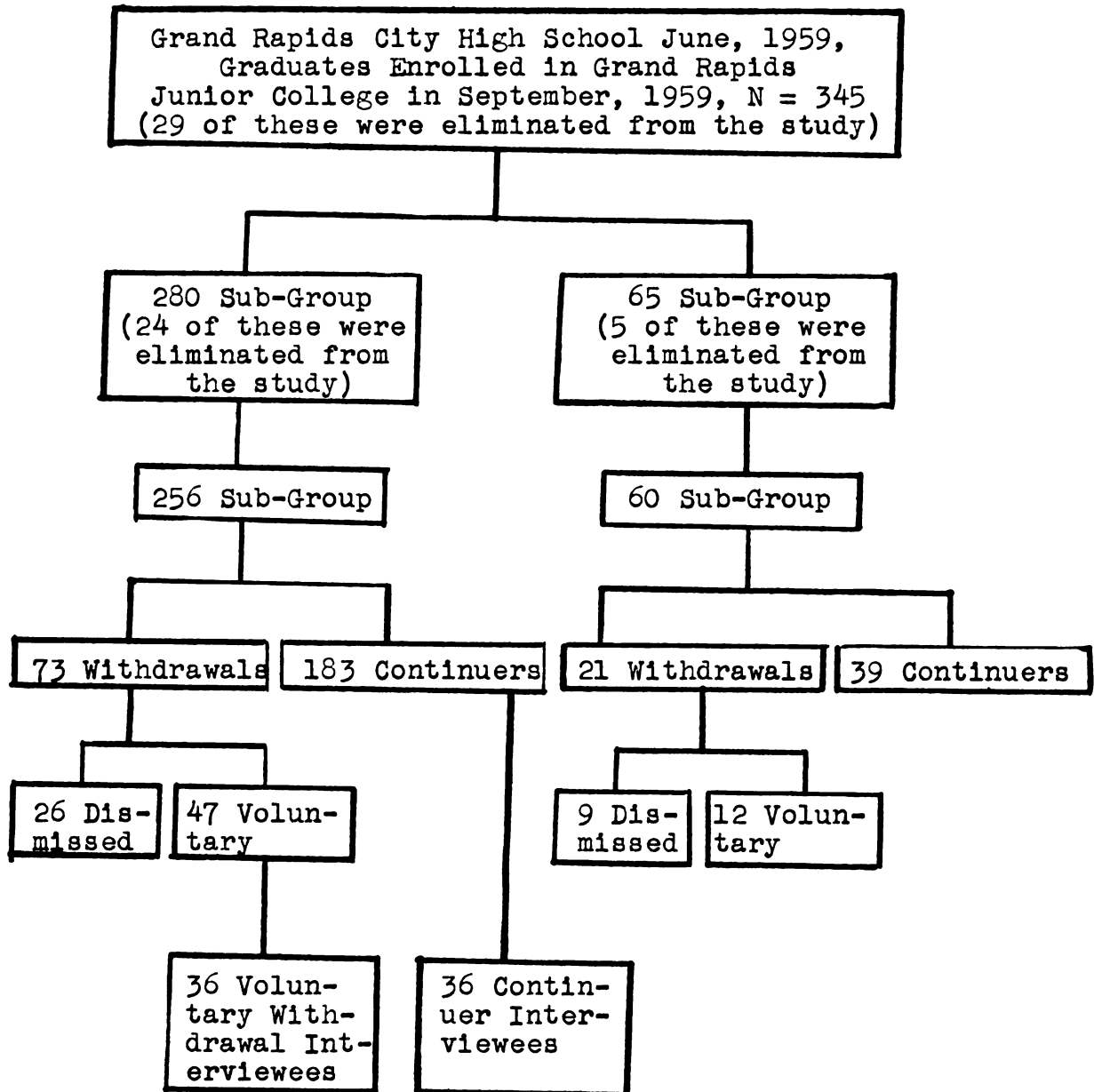
The total study sample of three-hundred and sixteen freshmen was composed of two sub-groups. One sub-group of two-hundred and fifty-six had spring, 1959, student questionnaire data and junior college record data available; one-hundred and thirty-nine of these also had spring, 1959, parent questionnaire data available. The second sub-group, composed of sixty students, had neither spring, 1959, student or parent questionnaire results available. Grand Rapids Junior College record data and limited high school data were available for these sixty students.

The individual interview data were obtained on thirty-six of the seventy-three freshmen from the two-hundred and fifty-six sub-group who withdrew during or at the end of the first year and on thirty-six of the one-hundred and eighty-three freshmen from the two-hundred and fifty-six freshmen

sub-group who did not withdraw during their freshmen year and who persisted into the third semester at Grand Rapids Junior College.

FIGURE I

SCHEMATIC PRESENTATION OF STUDY SAMPLE SUB-GROUPS



III. DATA COLLECTION PROCEDURES

The follow-up study of June, 1959, public city high school graduates conducted by Crawford³ revealed that three-hundred and forty-five students had enrolled in Grand Rapids Junior College in September, 1959. As previously mentioned twenty-nine of these were eliminated from the study. The names and questionnaire serial numbers of the remaining three-hundred and sixteen students were obtained from the study conducted by Crawford.

Sixty of the three-hundred and sixteen had neither student questionnaire or parent questionnaire data available in the original study conducted by Michigan State University in the spring of 1959.

The serial number and name of the two-hundred and fifty-six students for whom questionnaire data were available were then punched into blank I.B.M. cards. The name and a serial number prefixed by an "X" from one through sixty were then punched into blank I.B.M. cards for the sixty students for whom no questionnaire data were available.

High school preparation and family influences

The two-hundred and fifty-six cards were then matched by sorting on serial number with the corresponding I.B.M. cards containing student and parent questionnaire data from

³Crawford, op. cit.

the spring, 1959, study. Of the two-hundred and fifty-six cards thus obtained from the spring, 1959, study group of cards it was found that both student and parent questionnaire data were available for one-hundred and thirty-nine and student questionnaire data only were available on two-hundred and fifty-six.

Totally new I.B.M. data cards were then designed by the investigator. The data desired from the two-hundred and fifty-six I.B.M. cards containing student questionnaire results and the one-hundred and thirty-nine I.B.M. cards containing parent questionnaire results were then transferred into card number one (see Appendix A for Card #1 layout). The data desired from the sixty I.B.M. cards containing Crawford's follow-up information on high school attended, sex, and high school decile rank were transferred into card number two (see Appendix B for Card #2 layout).

Junior college academic information

Two separate alphabetical lists were then run in duplicate by I.B.M. tabulating machines, one list for the two-hundred and fifty-six sub-group and one for the sixty sub-group.

The official permanent record cards located in the Registrar's Office at Grand Rapids Junior College were then perused in October, 1960. The data concerning variables of the study related to academic information were transferred from the permanent records to the two alphabetical listings.

The official college tuition lists were used to determine whether each student in the study sample had continued full-time at Grand Rapids Junior College or had dropped out during the period under study. All of this information was then punched into card number for the two-hundred and fifty-six sub-group and into card number two for the sixty sub-group.

The information on high school curriculum was not available for the sixty student sub-group. A list was sent to each of the public city high school offices requesting that this information be provided; this information was then punched into the I.B.M. card number two.

Scores on the School and College Ability Test, Forms IIA and IIB, the Cooperative Reading Test C2, Forms R and T, and the Cooperative Mechanics of Expression Test were obtained from the Grand Rapids Junior College Counseling Service. These tests had been administered to all Grand Rapids public city high school juniors in the spring of 1958. Scores were reported in standard scores and were punched into I.B.M. card number three (see Appendix C for Card #3 layout), for both the two-hundred and fifty-six sub-group and the sixty sub-group. The same serial number was used in cards one and three and in cards two and three.

Of the two-hundred and fifty-six sub-group, complete test scores were available on two-hundred and forty-five, incomplete test results were available on one, and no test results were available on ten students.

Of the sixty sub-group, complete test results were available on fifty-five and no test results were available on five students.

Attitudes toward junior college
and level of aspiration

The data relating to variables in these two areas of the study were obtained through individual interviews conducted by the researcher with thirty-six voluntary withdrawals and thirty-six continuers. A standard interview schedule was developed by the investigator during the summer of 1960 and was tried out prior to its use in the study. Each interview lasted approximately one-half hour. Two separate interview schedules were developed, one for voluntary withdrawals and one for continuers, with identical questions where appropriate (see Appendix D for interview schedules). The responses of each interviewee were noted on the schedule during the course of each interview.

Only the seventy-three dropouts from the two-hundred and fifty-six sub-group were utilized in selecting the voluntary withdrawal interviewees since student questionnaire or parent questionnaire data were not available on the sixty sub-group.

A double postcard was sent to the parents of each of the seventy-three dropouts on October 6, 1960. The purpose of this postcard inquiry was to determine the whereabouts and activities of the dropouts as of October, 1960. All parents who did not return the postcard inquiry were telephoned and

asked the questions found on the postcard inquiry (see Appendix E for postcard inquiry and telephone inquiry forms). This information was then placed on a form similar to the postcard inquiry.

Of the seventy-three dropouts, thirty-seven were not available for interview. These thirty-seven were either dismissed and therefore eliminated from interview, were working or living away from Grand Rapids, were serving in the military service, or were carrying less than twelve semester hours the first semester of the 1959-1960 academic year. Thus, thirty-six voluntary withdrawals were available for interview. All thirty-six were interviewed.

The thirty-six voluntary withdrawals were then matched as closely as possible with thirty-six non-dropouts out of the one-hundred and eighty-three persisters from the two-hundred and fifty-six sub-group. The matching was done on the basis of high school attended, sex, curriculum at entry into Junior College in September, 1959, and test scores.

The voluntary withdrawal interview group and continuer interview group each consisted of nineteen males and seventeen females. Thirty students in each group enrolled in "transfer" curriculums and the remaining six students in each group enrolled in "terminal" curriculums. The chi-square ($\chi^2 = 1.67$) computed for high school attended revealed no significant difference at the 5 per cent level of confidence between the two groups. Total scores of the two groups on the School and

College Ability Test, Cooperative Reading Test C2, and Cooperative Mechanics of Expression Test were not significantly different at the 5 per cent level of confidence ($t_1 = 1.19$, $t_2 = 0.27$, and $t_3 = 0.34$ respectively).

The voluntary withdrawals available for interviews were contacted by telephone and an appointment was made for the researcher to interview them in their home (see Appendix F for telephone statement). Two of the voluntary withdrawals were interviewed at the Junior College since it was more convenient for them to come to the college. All other interviews were conducted in their homes. Voluntary withdrawal interviews were conducted December 3 through December 20, 1960.

The continuers were interviewed at Grand Rapids Junior College. Appointments were made by the Grand Rapids Junior College Counseling Service and were conducted December 5, 6, 9, and 12, 1960.

All students interviewed had enrolled for twelve or more semester hours in September, 1959, and continued to enroll for twelve or more semester hours each semester they were in attendance at Grand Rapids Junior College.

IV. DATA ANALYSIS PROCEDURES

Inasmuch as the total sample of three-hundred and sixteen was composed of two smaller sub-groups, the two sub-groups were compared to see if they were different. This analysis showed the small group of sixty to be concentrated

from two of the five high schools. Therefore, this group was not eliminated from the study. They were added to the two-hundred and fifty-six sub-group.

The students in the sample were separated into three classifications: (1) those who continued full-time into their second year at Grand Rapids Junior College, (2) those who voluntarily withdrew during or at the end of the freshman year, and (3) those who were dismissed during or at the end of the freshman year. Data on each variable listed under High School Preparation, Family Influences, and Junior College Academic Information (see Appendix G) were then compiled mechanically for the two-hundred and twenty-two continuers, the fifty-nine voluntary withdrawals, and the thirty-five dismissed students who made up the three-hundred and sixteen total sample.

The responses of the continuation interviewee group and the voluntary withdrawal interviewee group to each question in the interview schedules were then tabulated (see Appendix G for the variables listed under Attitudes Toward Junior College and Level of Aspiration).

Contingency tables were developed and the chi-square test of independence with Yates' correction for continuity was applied to data for which chi-square statistical analysis was appropriate. Means and variances were computed and "F" and "t" tests were applied to grade point average and test score data as appropriate. The 5 per cent level of confidence

was set for the statistical tests of significance.

Some of the data which were treated statistically involved very small numbers and may therefore make some of the results and conclusions questionable.

CHAPTER III

FINDINGS OF THE STUDY

I. INTRODUCTION

The findings reported in this chapter were derived from three sources of data: (1) student and parent questionnaires completed in May of the students' senior year in high school, (2) Grand Rapids Junior College official records, and (3) individual personal interviews conducted by the researcher with selected students who continued into the second year at Grand Rapids Junior College and students who withdrew from Grand Rapids Junior College during or at the end of their freshman year.

The findings are presented in the following order: (1) a discussion of the magnitude of withdrawal in the sample studied, time withdrawal occurred, and post-withdrawal occupation as of October, 1960; (2) variables statistically significantly related to persistence at Grand Rapids Junior College; (3) variables statistically non-significantly related to persistence at Grand Rapids Junior College; and (4) data on variables not treated statistically.

II. MAGNITUDE OF WITHDRAWAL, TIME WITHDRAWAL OCCURRED, AND POST-WITHDRAWAL OCCUPATION

The research findings cited in Chapter I indicated that the first year was the critical period during which the majority of community-junior colleges withdrawals took place. The researcher was interested in determining the extent of freshman withdrawal from Grand Rapids Junior College and the time withdrawal occurred. The researcher believed the activities pursued by dropouts after withdrawal from Grand Rapids Junior College were an important aspect of the withdrawal problem and should be investigated.

A total of ninety-four students, 29.7 per cent of the total sample, withdrew during or at the end of their freshman year. Thirty-five, 11.1 per cent of the total sample, were dismissed for academic reasons while fifty-nine, 18.6 per cent of the total sample, voluntarily withdrew.

Nineteen of the fifty-nine voluntary withdrawals dropped out during or at the end of the first semester while forty dropped out during or at the end of the second semester. Twenty-seven of the thirty-five dismissals were dismissed at the end of the second semester.

Follow-up information on occupation as of October, 1960, was available for forty-six of the voluntary withdrawals and twenty-five of the dismissals. Twenty-five of the voluntary withdrawals were working and/or married, four were in the service, and seventeen were attending another educational institution or following a formal training program. Eighteen

of the dismissals were working, two were in the service, five were attending another educational institution. Out of the total group of voluntary withdrawals and dismissals for whom follow-up information was available a total of forty-three were working and/or married, six were in the military service, and twenty-two were attending another educational institution or following a formal training program. Fourteen were attending a senior college or university, three were attending a proprietary business college, four were attending a commercial art and furniture design school, and one was in an on-the-job training program in the laboratory of a local hospital. Thus, 31 per cent of the voluntary withdrawals and dismissals for whom follow-up data were available were continuing an educational program elsewhere.

These findings indicate that, for the sample studied, the withdrawal rate was less than rates commonly reported in the literature for community-junior colleges.¹ The findings also reveal that withdrawal did not result in termination of a formal educational program for almost one-third of the withdrawal group. These findings are in agreement with those of Iffert and Los Angeles Valley Junior College.²

¹See reference to Eells, p. 9; Reynolds, p. 10; Thornton and Orange Coast College, p. 11; Lynch and Clark, p. 12; and Los Angeles Valley Junior College, p. 16.

²See reference to Iffert, pp. 13 and 14; and Los Angeles Valley Junior College, p. 14.

III. VARIABLES RELATED TO PERSISTENCE

The researcher was further interested in determining whether the selected variables in high school preparation, family influences, and Grand Rapids Junior College academic performance were significantly related to withdrawal. No empirical investigations into the withdrawal problem had been previously conducted at Grand Rapids Junior College. In addition, the review of the literature revealed little empirical research on community-junior college withdrawal had been carried out by other investigators. Finally, some of the variables investigated in this study which the researcher considered important elements in the consideration of the withdrawal problem had not been studied by previous researchers.

Eight variables were found to be statistically significant in relation to persistence of full-time freshmen:

(1) sex; (2) curriculum completed in high school; (3) high school decile rank; (4) educational plans of the student; (5) junior college curriculum enrolled in September, 1959; (6) first semester grade point average and first year grade point average; (7) enrollment in remedial English; and (8) total number of remedial courses enrolled in. The data on each of these variables are presented in Tables I through XV. The chi-square test of independence was utilized in the analysis of Tables I through VIII, and XII through XVI. The analysis of variance technique was utilized with Tables X, XI, and XXI. Theoretical frequencies matched observed

frequencies so closely in Tables XVII to XIX, XXII, and XXIII that chi-squares were not computed.

TABLE I

SEX OF STUDY SAMPLE FRESHMEN WHO CONTINUED FULL-TIME IN
GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW OR WERE
DISMISSED DURING OR AT THE END
OF THE FRESHMAN YEAR

Sex	Continued	Voluntarily Withdrew	Dismissed	Totals
Female	73	30	10	113
Male	149	29	25	203
Totals	222	59	35	316

$$\chi^2 = 7.43$$

Chi-square is significant at the 2.5 per cent level of confidence. Voluntary withdrawals were almost equally divided on the basis of sex while the theoretical frequencies called for more males than females to withdraw. The observed frequencies of the continuer and dismissed groups did not vary markedly from their chi-square theoretical frequencies. It becomes readily apparent that females voluntarily withdrew to a greater extent than males.

This finding is contradictory to those obtained by Iffert for four-year institutions and by Matson in a community-junior college study.³

³See reference to Iffert and Matson, p. 28.

TABLE II

CURRICULUM COMPLETED IN HIGH SCHOOL OF STUDY SAMPLE,
FRESHMEN WHO CONTINUED FULL-TIME IN SEPTEMBER,
1960, AT GRAND RAPIDS JUNIOR COLLEGE AND WHO
VOLUNTARILY WITHDREW OR WERE DISMISSED
DURING OR AT THE END OF THE
FRESHMAN YEAR

High School Curriculum Completed	Continued	Voluntarily Withdrew	Dismissed	Totals
College Preparatory	190	44	23	257
Non-College Preparatory	32	15	12	59
Totals	222	59	35	319

$$\chi^2 = 10.04$$

Chi-square is significant at the 1 per cent level of confidence. Fewer non-college preparatory students continued, more voluntarily withdrew, and twice the chi-square theoretical frequency were dismissed.

These findings are corroborated by Matson who found fewer college preparatory students in the withdrawal group.⁴

⁴See reference to Matson, p. 26.

TABLE III

CURRICULUM COMPLETED IN HIGH SCHOOL ACCORDING TO SEX OF
STUDY SAMPLE FRESHMEN WHO CONTINUED FULL-TIME IN
GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW OR WERE
DISMISSED DURING OR AT THE END OF
THE FRESHMAN YEAR

High School Curriculum Completed	Total Male	Total Female	Totals
College Preparatory	172	85	257
Non-College Preparatory	31	28	59
Totals	203	113	316

$$\chi^2 = 3.72$$

Chi-square is not significant at the 5 per cent level
of confidence. Thus, there is no significant difference
between males and females in high school curriculum completed.

TABLE IV

HIGH SCHOOL DECILE RANK OF STUDY SAMPLE FRESHMEN WHO
CONTINUED FULL-TIME IN GRAND RAPIDS JUNIOR COLLEGE
IN SEPTEMBER, 1960, AND WHO VOLUNTARILY WITHDREW
OR WERE DISMISSED DURING OR AT THE END OF
THE FRESHMAN YEAR

High School Decile	Continued	Voluntarily Withdrew	Dismissed	Totals
8, 9 and 10	87	25	5	117
4, 5, 6 and 7	99	27	12	138
1, 2 and 3	36	7	18	61
Totals	222	59	35	316

$$\chi^2 = 27.72$$

Chi-square is significant at the 0.5 per cent level of confidence. In both the continuer and voluntary withdrawal groups, more students fell in the upper three deciles, more fell in the middle four deciles, and fewer fell in the lowest three deciles than the theoretical chi-square frequencies. In the dismissed group, on the other hand, less than one-half the theoretical frequency fell in the upper three deciles, fewer than the theoretical frequency fell in the middle four deciles, and over twice the theoretical frequency fell in the lowest three deciles.

Although Jones did not separate withdrawals into those who voluntarily withdrew and those who were dismissed, he found that dropouts achieved at a low level in high school.⁵

A separate chi-square was computed to compare the continuer group with the voluntary withdrawal group on high school decile rank. Chi-square equalled 3.64 and was not significant at the 5 per cent level of confidence. Thus, there was no significant difference between continuers and voluntary withdrawals in high school decile rank.

⁵See reference to Jones, p. 26.

TABLE V

HIGH SCHOOL DECILE RANK ACCORDING TO SEX OF STUDY SAMPLE
 FRESHMEN WHO CONTINUED FULL-TIME IN SEPTEMBER, 1960,
 AT GRAND RAPIDS JUNIOR COLLEGE AND WHO VOLUNTARILY
 WITHDREW OR WERE DISMISSED DURING OR AT THE
 END OF THE FRESHMAN YEAR

High School Decile	Total Male	Total Female	Totals
8, 9, and 10	53	64	117
4, 5, 6 and 7	95	43	138
1, 2 and 3	55	6	61
Totals	203	113	316

$$\chi^2 = 37.42$$

A separate chi-square was computed on high school decile on the basis of sex. Table V contains these data. Chi-square is significant at the 0.5 per cent level of confidence. Markedly more females fell in the upper three deciles, slightly more fell in the middle four deciles, and less than one-third fell in the lowest three deciles than the theoretical frequencies expected.

TABLE VI

EDUCATIONAL PLANS OF STUDY SAMPLE FRESHMEN WHO
CONTINUED FULL-TIME IN GRAND RAPIDS JUNIOR
COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW DURING OR AT
THE END OF THE FRESHMAN YEAR

Educational Plans	Continued	Voluntarily Withdrew	Totals
Less than Baccalaureate Degree	13	8	21
Through College	136	27	163
College and Advanced Degree	34	11	45
Totals	183	46	229

$$\chi^2 = 6.03$$

Chi-square is significant at the 5 per cent level of confidence. Twice as many voluntary withdrawals planned on less than a baccalaureate degree, fewer planned on a baccalaureate degree, and slightly more planned on advanced degrees than the theoretical frequencies expected.

These results are supported by Matson's findings that the withdrawal group's educational plans were for shorter periods of collegiate training.⁶

When educational plans were classified according to sex, chi-square was not significant at the 5 per cent level of confidence. Table VII reveals no significant difference existed between males and females.

⁶ See reference to Matson, p. 22.

TABLE VII
EDUCATIONAL PLANS OF STUDY
SAMPLE FRESHMEN BY SEX

Educational Plans	Total Male	Total Female	Totals
Less than Baccalaureate Degree	12	14	26
College and Advanced Degree	147	83	230
Totals	159	97	256

$$\chi^2 = 2.42$$

Although educational plans leading to less than a bachelor's degree were related to persistence of the sample studied in Grand Rapids Junior College, these plans did not differ by sex.

TABLE VIII
CURRICULUM ENROLLED IN SEPTEMBER, 1959, OF STUDY SAMPLE
FRESHMEN WHO CONTINUED FULL-TIME IN GRAND RAPIDS
JUNIOR COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW OR WERE DISMISSED
DURING OR AT THE END OF THE
FRESHMAN YEAR

Curriculum Enrolled in September, 1959	Continued	Voluntarily Withdrew	Dismissed	Totals
Liberal Arts	62	13	12	87
Engineering	39	10	1	50
Teaching	37	7	8	52
Business Administration	25	4	10	39
Secretarial and other	59	25	4	88
Totals	222	59	35	316

$$\chi^2 = 24.21$$

Chi-square is significant at the 0.5 per cent level of confidence. The observed frequencies match very closely with the theoretical frequencies in the various curricula for the continuer group. The voluntary withdrawal students in secretarial and "other" curriculums withdrew to a much greater extent and slightly more withdrew in teaching and business administration than the theoretical frequencies expected. A much greater number of dismissed students fell in the business administration curriculum while fewer fell in engineering, secretarial, and "other" curriculums than the theoretical frequencies expected. Students who continue do not do so more readily in one curriculum than another. But voluntary withdrawals far exceed the theoretical frequencies in secretarial and "other" curriculums. Engineering students were not dismissed to the extent the theoretical frequency called for while business administration students experienced over twice their theoretical dismissal frequency. Secretarial and "other" students dismissed were less than one-half the theoretical frequency.

The finding with regard to greater withdrawal of students enrolled in the secretarial curriculum is corroborated by Matson's study.⁷

The high dismissal rate of students enrolled in the business administration curriculum receives some support from the findings of Williams.⁸

⁷See reference to Matson, p. 22.

⁸See reference to Williams, p. 25.

TABLE IX
CURRICULUM ENROLLED IN SEPTEMBER, 1959,
BY SEX OF STUDY SAMPLE FRESHMEN

Curriculum Enrolled in September, 1959	Total Male	Total Female	Totals
Liberal Arts	57	30	87
Engineering	49	1	50
Teaching	15	37	52
Business Administration	37	2	39
Secretarial	0	24	24
Other	45	19	64
Totals	203	113	316

Inspection of Table IX reveals that the Liberal Arts curriculum attracted approximately equal proportions of males and females. Engineering, however, was virtually a male enrollment only. Teaching attracted over twice as many females proportionally as males. Business administration was predominantly male. Secretarial enrollment was completely female. All other curriculums combined had approximately two males to each female enrolled.

TABLE X

FIRST SEMESTER GRADE POINT AVERAGE OF STUDY SAMPLE
FRESHMEN WHO CONTINUED FULL-TIME IN GRAND RAPIDS
JUNIOR COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW OR WERE DISMISSED
DURING OR AT THE END OF THE
FRESHMAN YEAR

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	54.51	2	27.26	57.63
Within Means	147.07	311	0.47	
Totals	201.58	314		

$N_1 = 220$ (Continued)	$\bar{X}_1 = 2.13$	$s_1^2 = 0.51$
$N_2 = 59$ (Voluntarily Withdrew)	$\bar{X}_2 = 2.04$	$s_2^2 = 0.50$
$N_3 = 35$ (Dismissed)	$\bar{X}_3 = 0.80$	$s_3^2 = 0.22$
Total $N = 314$	Total $\bar{X} = 1.97$	

The analysis of variance produced a significant F at the 1 per cent level of confidence. The mean for the entire sample was 1.97; the means for the continuer group and the voluntary withdrawal group were not significantly different whereas the mean for the dismissed group was well over one entire grade point below both the continuer and voluntary withdrawal groups. A significant F at the 1 per cent level of confidence was likewise obtained for first year grade point average, as seen in Table XI. The mean for the entire group was 2.12. The same relationship existed between these means as for the first semester grade point average means.

TABLE XI

FIRST YEAR GRADE POINT AVERAGE OF STUDY SAMPLE FRESHMEN
WHO CONTINUED IN GRAND RAPIDS JUNIOR COLLEGE IN
SEPTEMBER, 1960, AND WHO VOLUNTARILY WITHDREW
OR WERE DISMISSED DURING OR AT THE END OF
THE FRESHMAN YEAR

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	13.00	2	6.50	12.55
Within Means	133.05	257	0.52	
Totals	146.05	259		

$N_1 = 210$ (Continued)	$\bar{X}_1 = 2.19$	$s_1^2 = 0.51$
$N_2 = 42$ (Voluntarily Withdrew)	$\bar{X}_2 = 2.02$	$s_2^2 = 0.60$
$N_3 = 8$ (Dismissed)	$\bar{X}_3 = 0.92$	$s_3^2 = 0.22$
Total $N = 260$	Total $\bar{X} = 2.12$	

The findings of this study are corroborated by Jones who found dropouts were unsuccessful academically; Matson, on the other hand found no significant difference in academic performance between withdrawal and continuation groups.⁹ Neither Jones or Matson separated withdrawals into those who were dismissed and those who voluntarily left.

Although grade point average is related to persistence at Grand Rapids Junior College, the relationship exists between persistence and the fact of being academically dismissed by the college. Students who voluntarily withdrew as

⁹See reference to Jones and Matson, p. 25.

a group did not differ significantly in academic performance from the continuer group.

TABLE XII

ENROLLMENT IN REMEDIAL ENGLISH OF STUDY SAMPLE FRESHMEN
WHO CONTINUED IN GRAND RAPIDS JUNIOR COLLEGE IN
SEPTEMBER, 1960, AND WHO VOLUNTARILY WITHDREW
OR WERE DISMISSED DURING OR AT THE END OF
THE FRESHMAN YEAR

Enrollment in Remedial English	Continued	Voluntarily Withdrew	Dismissed	Totals
Enrolled	51	13	20	84
Not Enrolled	171	46	15	232
Totals	222	59	35	316

$$\chi^2 = 18.80$$

Chi-square is significant at the 0.5 per cent level of confidence. Fewer continuers and voluntary withdrawals were enrolled while twice the theoretical frequency of dismissed students were enrolled.

Table XIII reveals that, at the 0.5 per cent level of confidence, a significant chi-square is found on enrollment in remedial English on the basis of sex. Significantly more males were enrolled than females.

TABLE XIII

ENROLLMENT IN REMEDIAL ENGLISH BY SEX OF STUDY SAMPLE
 FRESHMEN WHO CONTINUED FULL-TIME IN SEPTEMBER, 1960,
 IN GRAND RAPIDS JUNIOR COLLEGE, AND WHO
 VOLUNTARILY WITHDREW OR WERE DISMISSED
 DURING OR AT THE END OF THE
 FRESHMAN YEAR

Enrollment in Remedial English	Total Male	Total Female	Totals
Enrolled	76	8	84
Not Enrolled	127	105	232
Totals	203	113	316

$$\chi^2 = 32.74$$

Tables XIV and XV are consistent with the above findings. Table XIV shows that, with a chi-square significant at the 0.5 per cent level of confidence, fewer continuer and voluntary withdrawal students were enrolled in one or more remedial courses than the theoretical frequencies expected but that many more dismissed students were so enrolled. As in Table XIII, it was found significant at the 0.5 per cent level of confidence that more males are enrolled in remedial courses than females.

TABLE XIV

TOTAL NUMBER OF REMEDIAL COURSES ENROLLED IN FOR STUDY
 SAMPLE OF FRESHMEN WHO CONTINUED FULL-TIME IN
 GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER,
 1960, AND WHO VOLUNTARILY WITHDREW OR
 WERE DISMISSED DURING OR AT THE END
 OF THE FRESHMAN YEAR

Total Number of Remedial Courses Enrolled in	Continued	Voluntarily Withdrew	Dismissed	Totals
0	161	46	14	221
1	42	7	15	64
2	19	6	6	31
Totals	222	59	35	316

$$\chi^2 = 18.01$$

TABLE XV

TOTAL NUMBER OF REMEDIAL COURSES ENROLLED IN ACCORDING
 TO SEX FOR STUDY SAMPLE OF FRESHMEN WHO CONTINUED
 FULL-TIME IN GRAND RAPIDS JUNIOR COLLEGE IN
 SEPTEMBER, 1960, AND WHO VOLUNTARILY
 WITHDREW OR WERE DISMISSED
 DURING OR AT THE END
 OF THE FRESHMAN
 YEAR

Total Number of Remedial Courses Enrolled In	Total Male	Total Female	Totals
Not Enrolled	120	101	221
Enrolled in one or more	83	12	95
Totals	203	113	316

$$\chi^2 = 30.21$$

IV. ANALYSIS OF FORTY-SIX VOLUNTARY WITHDRAWAL
STUDENTS SEPARATED INTO THOSE WHO CONTINUED
ELSEWHERE AND THOSE WHO TERMINATED THEIR
EDUCATIONAL PROGRAM AFTER WITHDRAWING
FROM GRAND RAPIDS JUNIOR COLLEGE

Follow-up information was obtained on forty-six voluntary withdrawals in October, 1960, to determine occupation being pursued subsequent to withdrawal from Grand Rapids Junior College. This follow-up revealed that seventeen were continuing an educational program at another institution while twenty-nine had terminated their formal education and were working and/or married or in the military service. The investigator felt it was important to determine whether voluntary withdrawals who terminated their formal education were significantly different from those who continued an educational program elsewhere.

The variables previously demonstrated to be statistically significantly related to persistence at Grand Rapids Junior College were investigated separating this group of voluntary withdrawals as indicated above.

TABLE XVI

CURRICULUM COMPLETED IN HIGH SCHOOL OF VOLUNTARY
WITHDRAWALS WHO CONTINUED ELSEWHERE OR
TERMINATED THEIR EDUCATIONAL PROGRAM
AFTER WITHDRAWING FROM GRAND
RAPIDS JUNIOR COLLEGE

High School Curriculum Completed	Transferred	Terminated	Totals
College Preparatory	16	17	33
Non-College Preparatory	1	12	13
Totals	17	29	46

$$\chi^2 = 5.03$$

Chi-square is significant at the 2.5 per cent level of confidence. Significantly fewer students who transferred to another institution completed a non-college preparatory curriculum in high school. Conversely, a greater number of students who terminated their formal education upon voluntarily withdrawing from Grand Rapids Junior College had completed a non-college preparatory curriculum in high school. Thus, curriculum completed in high school is not only related to persistence at Grand Rapids Junior College, it is significantly different for voluntary withdrawals who transfer and who terminate formal education.

TABLE XVII

HIGH SCHOOL DECILE RANK OF VOLUNTARY WITHDRAWALS WHO
CONTINUED ELSEWHERE OR TERMINATED THEIR
EDUCATIONAL PROGRAM AFTER WITHDRAWING
FROM GRAND RAPIDS JUNIOR COLLEGE

High School Decile	Transferred	Terminated	Totals
6 - 10	11	19	30
1 - 5	6	10	16
Totals	17	29	46

There is no significant difference between these two groups in high school decile rank. Voluntary withdrawals who terminated their educational program performed as well in high school as those who transferred to another institution.

TABLE XVIII

SEX OF VOLUNTARY WITHDRAWALS WHO CONTINUED ELSEWHERE
OR TERMINATED THEIR EDUCATIONAL PROGRAM
AFTER WITHDRAWING FROM GRAND RAPIDS
JUNIOR COLLEGE

Sex	Transferred	Terminated	Totals
Male	10	14	24
Female	7	15	22
Totals	17	29	46

No significant difference existed between males and females in transfer to another institution or termination of educational program.

TABLE XIX

EDUCATIONAL PLANS OF VOLUNTARY WITHDRAWALS WHO
CONTINUED ELSEWHERE OR TERMINATED THEIR
EDUCATIONAL PROGRAM AFTER WITHDRAWING
FROM GRAND RAPIDS JUNIOR COLLEGE

Educational Plans	Transferred	Terminated	Totals
Less than Baccalaureate Degree	2	6	8
Baccalaureate or Advanced Degree	15	23	38
Totals	17	29	46

No significant difference existed between transfers and students who terminated their educational program in regard to their plans for obtaining less than a baccalaureate degree or a baccalaureate or advanced degree.

TABLE XX

CURRICULUM ENROLLED IN SEPTEMBER, 1959, OF
VOLUNTARY WITHDRAWALS WHO CONTINUED
ELSEWHERE OR TERMINATED THEIR
EDUCATIONAL PROGRAM AFTER
WITHDRAWING FROM GRAND
RAPIDS JUNIOR
COLLEGE

Curriculum Enrolled In September, 1959	Transferred	Terminated	Totals
Liberal Arts	6	5	11
Engineering	4	6	10
Teaching	3	2	5
Business Administration	0	1	1
Secretarial	0	7	7
Other	4	8	12
Totals	17	29	46

The small number of students in each of the curriculums precluded statistical analysis. However, it is noteworthy that fifteen of the twenty-nine students who terminated their program were in secretarial or "other" curriculums, whereas only four of the transfers fell in these categories.

TABLE XXI

FIRST SEMESTER GRADE POINT AVERAGE AND FIRST YEAR GRADE
POINT AVERAGE OF VOLUNTARY WITHDRAWALS WHO
CONTINUED ELSEWHERE OR TERMINATED
THEIR EDUCATIONAL PROGRAM AFTER
WITHDRAWING FROM GRAND RAPIDS
JUNIOR COLLEGE

	First Semester Grade Point Average	First Semester Variance	N	First Year Grade Point Average	First Year Variance	N
Transferred	2.22	0.51	17	2.35	0.49	15
Terminated	2.01	0.44	29	1.74	0.37	18

$$t_1 = 0.98$$

$$t_2 = 2.69$$

The analysis of variance t_1 test was not significant at the 5 per cent level of confidence indicating no difference between the first semester grade point average means of students who transferred and students who terminated after withdrawal. However, t_2 was significantly different at the 1 per cent level of confidence for difference in means of transfers and those who terminated their educational program at the end of their freshman year. The students who transferred received a slightly higher cumulative grade point average for the freshman year than for the first semester while the first semester grade point average was higher than the cumulative freshman year average for the group of students who terminated their educational program. Those who terminated their schooling performed as well academically the first semester as did those who transferred. However,

the terminating students as a group did not do as well the second semester of their work at Grand Rapids Junior College as did the students who subsequently transferred after their freshman year.

Tables XXII and XXIII reveal that there were no significant difference between the two groups in their enrollment in remedial English or enrollment in total number of remedial courses.

TABLE XXII

ENROLLMENT IN REMEDIAL ENGLISH OF VOLUNTARY WITHDRAWALS
WHO CONTINUED ELSEWHERE OR TERMINATED THEIR
EDUCATIONAL PROGRAM AFTER WITHDRAWING
FROM GRAND RAPIDS JUNIOR COLLEGE

Enrollment in Remedial English	Transferred	Terminated	Totals
Enrolled	3	6	9
Not Enrolled	14	23	37
Totals	17	29	46

TABLE XXIII

TOTAL NUMBER OF REMEDIAL COURSES ENROLLED IN OF VOLUNTARY
WITHDRAWALS WHO CONTINUED ELSEWHERE OR TERMINATED
THEIR EDUCATIONAL PROGRAM AFTER WITHDRAWING
FROM GRAND RAPIDS JUNIOR COLLEGE

Total Number of Remedial Courses Enrolled in	Transferred	Terminated	Totals
0	14	23	37
1	2	3	5
2	1	3	4
Totals	17	29	46

High school curriculum completed and cumulative grade point average for the freshman year were the only statistically significant variables differentiating the group of students who continued elsewhere from those who terminated their educational program. All other previously significant variables were shown to be non-significant in these comparisons. The two groups of students who voluntarily withdrew were not materially different in the characteristics investigated. Rather, the difference lay in high school curriculum followed and performance the second semester.

V. VARIABLES NOT RELATED TO PERSISTENCE

The results of this study demonstrated the lack of relationship between a number of the variables studied and freshman persistence. The investigator felt it well to group these variables together in one section for discussion purposes.

Eighteen variables were found to be statistically non-significant in relation to persistence and withdrawal of full-time freshmen. The data for each of these variables are presented in Tables XXIV through XL. The chi-square test of independence was utilized in the analyses of all Tables except Table XXXV. The analysis of variance technique was utilized for Table XXXV.

Those variables not related to persistence at Grand Rapids Junior College were: (1) high school attended, (2) certainty of going into specialized training as deter-

mined late in the senior year in high school, (3) plans made for attending college as determined late in the senior year of high school, (4) vocational choice as determined late in the senior year in high school, (5) whether siblings had attended college or not, (6) total number of children in the family, (7) parents' educational aspiration for their child as determined late in the senior year in high school, (8) parents' plans for financing their child's education beyond high school as determined late in the child's senior year in high school, (9) educational attainment of the father, (10) educational attainment of the mother, (11) enrollment in remedial reading during the freshman year in Grand Rapids Junior College, (12) Grand Rapids Junior College Freshman Placement Test Battery Scores as derived from testing conducted late in the junior year of high school, (13) number of hours spent per week in outside paid employment while in attendance at Grand Rapids Junior College, (14) number of hours spent per week in participation in the junior college co-curricular activities program, (15) continuation and voluntary withdrawal interviewees' attitude toward quality of instruction received at Grand Rapids Junior College, (16) continuation and voluntary withdrawal interviewees' attitude toward the ease with which they felt they could talk with junior college instructors, (17) continuation and voluntary withdrawal interviewees' attitude toward whether or not they would be less able to achieve their goals as a result of continuing or withdrawing from the junior college, and

(18) continuation and voluntary withdrawal interviewees' attitude toward Grand Rapids Junior College curricula adequacy in comparison with other colleges and universities in the state or other means of obtaining vocational training of a terminal-technical nature.

TABLE XXIV

HIGH SCHOOL ATTENDED OF STUDY SAMPLE FRESHMEN WHO
CONTINUED FULL-TIME IN GRAND RAPIDS JUNIOR
COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW OR WERE
DISMISSED DURING OR AT THE
END OF THE FRESHMAN YEAR

High School Attended	Continued	Voluntarily Withdrew	Dismissed	Totals
Central	34	7	2	43
Creston	54	14	9	77
Ottawa	61	14	10	85
South	36	9	9	54
Union	37	15	5	57
Totals	222	59	35	316

$$\chi^2 = 6.64$$

Chi-square is not significant at the 5 per cent level of confidence. High school attended was not a significant variable in persistence of the study sample at Grand Rapids Junior College.

TABLE XXV

CERTAINTY OF GOING INTO SPECIALIZED TRAINING AFTER HIGH
SCHOOL OF STUDENTS WHO CONTINUED FULL-TIME IN
GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER,
1960, AND WHO VOLUNTARILY WITHDREW
DURING OR AT THE END OF THE
FRESHMAN YEAR

Certainty of Going Into Specialized Training	Continued	Voluntarily Withdrew	Totals
Very Certain	144	35	179
Fairly Certain	28	11	39
Totals	172	46	218

$$\chi^2 = 1.90$$

Chi-square is not significant at the 5 per cent level of confidence. Thus, students who continued at Grand Rapids Junior College into their second year were not, as a group, more certain in their desire for specialized training beyond high school than were those students who withdrew.

TABLE XXVI

PLANS MADE FOR ATTENDING COLLEGE LATE IN THE SENIOR YEAR
OF HIGH SCHOOL OF STUDENTS WHO CONTINUED FULL-TIME IN
GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW DURING OR AT
THE END OF THE FRESHMAN YEAR

Plans Made For Attending College	Continued	Voluntarily Withdrew	Totals
Have Applied	98	22	120
Already Accepted	66	16	82
Have Contacted a College; May Go; No Intention	19	9	28
Totals	183	47	230

$$\chi^2 = 2.70$$

Chi-square is not significant at the 5 per cent level of confidence. Students who withdrew from the junior college had not been less active in processing an application for admission to a collegiate institution than students who continued full-time into the second year at Grand Rapids Junior College.

TABLE XXVII

VOCATIONAL CHOICE AS DETERMINED LATE IN THE SENIOR YEAR
OF HIGH SCHOOL OF STUDENTS WHO CONTINUED FULL-TIME
IN GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER,
1960, AND WHO VOLUNTARILY WITHDREW DURING
OR AT THE END OF THE FRESHMAN YEAR

Vocational Choice	Continued	Voluntarily Withdrew	Totals
Teaching	37	4	41
Engineering and Electronics	31	8	39
Business Administration and Accounting	20	3	23
Secretarial	8	5	13
Other	58	20	78
Undecided	27	4	31
Totals	181	44	225

$$\chi^2 = 8.81$$

Chi-square is not significant at the 5 per cent level of confidence. Vocational plans were not related to continuance or voluntary withdrawal from the junior college during the freshman year.

TABLE XXVIII

SIBLINGS ATTENDANCE IN COLLEGE OF STUDENTS WHO CONTINUED
FULL-TIME IN GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER,
1960, AND WHO VOLUNTARILY WITHDREW DURING
OR AT THE END OF THE FRESHMAN YEAR

Siblings Attended College	Continued	Voluntarily Withdrew	Totals
Yes	51	13	64
No	123	33	156
Totals	174	46	220

$$\chi^2 = 0.002$$

Chi-square is not significant at the 5 per cent level of confidence. Whether siblings had attended college or not was not a factor in continuance or voluntary withdrawal during the freshman year.

TABLE XXIX

TOTAL NUMBER OF CHILDREN IN THE FAMILY OF STUDENTS WHO CONTINUED FULL-TIME IN GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960, AND WHO VOLUNTARILY WITHDREW DURING OR AT THE END OF THE FRESHMAN YEAR

Total Number of Children in the Family	Continued	Voluntarily Withdrew	Totals
1	37	8	45
2	29	5	34
3 or more	22	7	29
Totals	88	20	108

$$\chi^2 = 0.86$$

Chi-square is not significant at the 5 per cent level of confidence. The presence of one or more other children in the family did not effect continuance or voluntary withdrawal from the junior college.

TABLE XXX

PARENTS' EDUCATIONAL ASPIRATION FOR STUDENTS WHO
CONTINUED FULL-TIME IN GRAND RAPIDS JUNIOR
COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW DURING OR AT
THE END OF THE FRESHMAN YEAR

Parents' Educational Aspiration for their Child	Continued	Voluntarily Withdrew	Totals
Less than Baccalaureate Degree	11	5	16
Through College and Advanced Degree	81	16	97
Totals	92	21	113

$$\chi^2 = 1.12$$

Chi-square is not significant at the 5 per cent level of confidence. The educational aspirations of the students' parents was not related to persistence or voluntary withdrawal.

TABLE XXXI

PARENTS' PLANS FOR FINANCING THEIR CHILDREN'S EDUCATION
BEYOND HIGH SCHOOL OF STUDENTS WHO CONTINUED
FULL-TIME IN GRAND RAPIDS JUNIOR
COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY
WITHDREW DURING OR
AT THE END OF
THE FRESHMAN
YEAR

Parents' Plans	Continued	Voluntarily Withdrew	Totals
Help him work way through	70	13	83
Leaving up to child; none; savings program	22	6	28
Totals	92	19	111

$$\chi^2 = 0.17$$

Chi-square is not significant at the 5 per cent level of confidence. While parents' financial plans were not significantly related, it is interesting to note that the vast majority of parents planned on helping their children work their way through college.

TABLE XXXII

EDUCATIONAL ATTAINMENT OF FATHER OF STUDENTS WHO
CONTINUED FULL-TIME IN GRAND RAPIDS JUNIOR
COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW DURING OR AT
THE END OF THE FRESHMAN YEAR

Educational Attainment of Father	Continued	Voluntarily Withdrew	Totals
Less than High School Graduate	34	12	46
High School Graduate	32	3	35
Beyond High School Graduation	24	5	29
Totals	90	20	110

$$\chi^2 = 4.12$$

Chi-square is not significant at the 5 per cent level of confidence. Educational attainment of the students' father was not related to persistence or voluntary withdrawal.

TABLE XXXIII

EDUCATIONAL ATTAINMENT OF MOTHER OF STUDENTS WHO
CONTINUED FULL-TIME IN GRAND RAPIDS JUNIOR
COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW DURING OR AT
THE END OF THE FRESHMAN YEAR

Educational Attainment of Mother	Continued	Voluntarily Withdrew	Totals
Less than High School Graduate	27	12	39
High School Graduate	38	6	44
Beyond High School Graduation	23	3	26
Totals	88	21	109

$$\chi^2 = 5.21$$

Chi-square is not significant at the 5 per cent level of confidence. Neither mother or fathers' level of education is related to persistence or withdrawal from the junior college.

TABLE XXXIV

ENROLLMENT IN REMEDIAL READING OF STUDENTS WHO CONTINUED
FULL-TIME IN GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER,
1960, AND WHO VOLUNTARILY WITHDREW OR WERE DISMISSED
DURING OR AT THE END OF THE
FRESHMAN YEAR

Enrollment in Remedial Reading	Continued	Voluntarily Withdrew	Dismissed	Totals
Enrolled	28	5	7	40
Not Enrolled	194	54	28	276
Totals	222	59	35	316

$$\chi^2 = 2.65$$

Chi-square is not significant at the 5 per cent level of confidence. Students were enrolled in remedial reading on the basis of the Cooperative Reading Test, C2 included in the Grand Rapids Junior College Placement Test Battery which was administered late in the junior year in high school. This finding is consistent with the following findings on the test battery results in relation to student persistence in the junior college.

TABLE XXXV

TEST RESULTS OF STUDENTS WHO CONTINUED FULL-TIME IN
GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW OR WERE DISMISSED
DURING OR AT THE END OF THE
FRESHMAN YEAR

<u>SCAT V</u>				
Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	7,147.59	2	3,573.79	0.96
Within Means	1,160,852.49	313	3,708.79	
Totals	1,168,000.08	315		
$N_1 = 222$ (Continued)		$\bar{X}_1 = 278.55$	$s_1^2 = 3,464.84$	
$N_2 = 59$ (Voluntarily Withdrew)		$\bar{X}_2 = 272.56$	$s_2^2 = 4,170.25$	
$N_3 = 35$ (Dismissed)		$\bar{X}_3 = 264.03$	$s_3^2 = 4,507.32$	

TABLE XXXV (continued)

SCAT Q

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	16,770.08	2	8,385.04	1.81
Within Means	1,446,617.95	313	4,621.78	
Totals	1,463,388.03	315		
<hr/>				
$N_1 = 222$ (Continued)		$\bar{X}_1 = 291.79$	$S_1^2 = 4,238.46$	
$N_2 = 59$ (Voluntarily Withdrew)		$\bar{X}_2 = 277.14$	$S_2^2 = 5,903.91$	
$N_3 = 35$ (Dismissed)		$\bar{X}_3 = 273.97$	$S_3^2 = 4,926.21$	

SCAT T

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	7,261.41	2	3,630.70	1.12
Within Means	1,013,868.81	313	3,239.19	
Totals	1,021,130.22	315		
<hr/>				
$N_1 = 222$ (Continued)		$\bar{X}_1 = 283.50$	$S_1^2 = 2,748.96$	
$N_2 = 59$ (Voluntarily Withdrew)		$\bar{X}_2 = 277.17$	$S_2^2 = 4,279.04$	
$N_3 = 35$ (Dismissed)		$\bar{X}_3 = 269.00$	$S_3^2 = 4,651.88$	

READING V

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	789.72	2	394.86	2.34
Within Means	52,626.73	313	168.13	
Totals	53,416.45	315		

TABLE XXXV (continued)

$N_1 = 222$ (Continued)	$\bar{X}_1 = 47.77$	$s_1^2 = 178.22$
$N_2 = 59$ (Voluntarily Withdrew)	$\bar{X}_2 = 45.56$	$s_2^2 = 141.32$
$N_3 = 35$ (Dismissed)	$\bar{X}_3 = 43.06$	$s_3^2 = 148.35$

READING SC

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	679.01	2	339.50	1.74
Within Means	61,026.93	313	194.97	
Totals	61,705.94	315		

$N_1 = 222$ (Continued)	$\bar{X}_1 = 49.31$	$s_1^2 = 202.14$
$N_2 = 59$ (Voluntarily Withdrew)	$\bar{X}_2 = 49.25$	$s_2^2 = 189.71$
$N_3 = 35$ (Dismissed)	$\bar{X}_3 = 44.63$	$s_3^2 = 157.36$

READING LC

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	613.31	2	306.65	1.63
Within Means	58,658.83	313	187.40	
Totals	59,272.14	315		

$N_1 = 222$ (Continued)	$\bar{X}_1 = 49.85$	$s_1^2 = 194.13$
$N_2 = 59$ (Voluntarily Withdrew)	$\bar{X}_2 = 49.22$	$s_2^2 = 181.55$
$N_3 = 35$ (Dismissed)	$\bar{X}_3 = 45.34$	$s_3^2 = 153.70$

TABLE XXXV (continued)

READING T

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	751.06	2	375.53	2.09
Within Means	56,114.13	313	179.27	
Totals	56,865.19	315		
$N_1 = 222$ (Continued)		$\bar{X}_1 = 48.79$	$S_1^2 = 187.31$	
$N_2 = 59$ (Voluntarily Withdrew)		$\bar{X}_2 = 47.76$	$S_2^2 = 167.80$	
$N_3 = 35$ (Dismissed)		$\bar{X}_3 = 43.83$	$S_3^2 = 146.62$	

MECHANICS OF EXPRESSION T

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Between Means	639.78	2	319.89	1.52
Within Means	65,739.16	313	210.02	
Totals	66,378.94	315		
$N_1 = 222$ (Continued)		$\bar{X}_1 = 47.81$	$S_1^2 = 210.34$	
$N_2 = 59$ (Voluntarily Withdrew)		$\bar{X}_2 = 46.86$	$S_2^2 = 201.33$	
$N_3 = 35$ (Dismissed)		$\bar{X}_3 = 43.23$	$S_3^2 = 222.89$	

The F ratios for each of the sub-tests and total score on each of the tests used in the battery are not significant at the 5 per cent level of confidence. It is clearly

evident that the test battery, as administered and utilized at the time of this study, did not differentiate those freshmen who were likely to continue into the second year at Grand Rapids Junior College from freshmen who would subsequently voluntarily withdraw or be dismissed during or at the end of the freshman year.

These findings are consistent with the results reported by Thornton and Matson. Medsker, on the other hand, believes that the less able student tends to withdraw.¹⁰

Interview data which were treated statistically were all non-significantly related to persistence. These are presented in Tables XXXVI through XLIII.

TABLE XXXVI

NUMBER OF HOURS SPENT PER WEEK IN OUTSIDE PAID EMPLOYMENT
OF INTERVIEWEES WHO CONTINUED FULL-TIME IN GRAND
RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960, AND
WHO WITHDREW DURING OR AT THE END OF THE
FRESHMAN YEAR

Hours per week Employed	Continued	Voluntarily Withdrew	Totals
0	15	12	27
1 - 15	11	9	20
16 - beyond	10	15	25
Totals	36	36	72

$\chi^2 = 1.53$

¹⁰ See reference to Thornton and Matson, p. 23; and Medsker, pp. 24 and 25.

Chi-square is not significant at the 5 per cent level of confidence. Thus, employment and number of hours worked, or the absence of employment, was not related to persistence in the junior college.

These findings are in agreement with Iffert's conclusion that earning part or all of college expenses did not seriously affect persistence.¹¹

None of the interviewees worked full-time while in attendance at the junior college. A majority of both continuers and voluntary withdrawals did work part-time, however. Approximately only 6 per cent indicated they could not have continued junior college if they had not worked.

TABLE XXXVII

NUMBER OF HOURS SPENT PER WEEK IN PARTICIPATION IN THE
JUNIOR COLLEGE CO-CURRICULAR ACTIVITIES PROGRAM OF
INTERVIEWEES WHO CONTINUED FULL-TIME IN GRAND
RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW DURING OR
AT THE END OF THE FRESHMAN YEAR

Hours per week Activities	Continued	Voluntarily Withdrew	Totals
0	10	17	27
1 - 5	21	14	35
6 - beyond	5	5	10
Totals	36	36	72

$$\chi^2 = 3.22$$

¹¹See reference to Iffert, p. 26.

Chi-square is not significant at the 5 per cent level of confidence. Not only was number of hours spent per week in activities not related, but, as shown in Table XXXVIII, the fact of participation or non-participation in activities was not related to persistence of the seventy-two students interviewed.

Iffert's finding that participation in co-curricular activities was not related to persistence to graduation tends to support the findings of this study. Williams found that non-participation in the co-curricular program was related to non-graduation from the community-junior college studied in his research.¹²

TABLE XXXVIII

PARTICIPATION AND NON-PARTICIPATION IN CO-CURRICULAR
PROGRAM OF INTERVIEWEES WHO CONTINUED FULL-TIME IN
GRAND RAPIDS JUNIOR COLLEGE, SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW DURING OR AT
THE END OF THE FRESHMAN YEAR

Co-curricular Program	Continued	Voluntarily Withdrew	Totals
Participation	26	19	45
Non-Participation	10	17	27
Totals	36	36	72

$\chi^2 = 2.13$

¹²See reference to Iffert and Williams, p. 27.

Chi-square is not significant at the 5 per cent level of confidence.

TABLE XXXIX

DEGREE OF SATISFACTION WITH THE CO-CURRICULAR ACTIVITIES
PROGRAM OF INTERVIEWEES WHO CONTINUED FULL-TIME IN
GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW DURING OR
AT THE END OF THE FRESHMAN YEAR

Co-Curricular Program Meet Your Needs	Continued	Voluntarily Withdrew	Totals
Very well	4	4	8
Adequate	15	9	24
Inadequate	7	6	13
Did not take part	10	17	27
Totals	36	36	72

$$\chi^2 = 5.42$$

Chi-square is not significant at the 5 per cent level of confidence. Attitude toward the adequacy of the co-curricular program of the junior college was not significantly related to persistence in the junior college.

TABLE XL

ATTITUDE TOWARD QUALITY OF INSTRUCTION RECEIVED AT GRAND
RAPIDS JUNIOR COLLEGE OF INTERVIEWEES WHO CONTINUED
FULL-TIME IN GRAND RAPIDS JUNIOR COLLEGE IN
SEPTEMBER, 1960, AND WHO VOLUNTARILY
WITHDREW DURING OR AT THE END OF
THE FRESHMAN YEAR

Quality of Instruction Received at Junior College	Continued	Voluntarily Withdrew	Totals
Excellent; very good	14	17	31
Good	13	9	22
Poor and some good	9	10	19
Totals	36	36	72

$$\chi^2 = 1.07$$

Chi-square is not significant at the 5 per cent level of confidence. Students who voluntarily withdrew did not feel significantly different about the quality of instruction received from those students who persisted into the second year at the junior college. It is interesting to note that the majority of interviewees rated their instruction good or excellent.

There is no significant difference between the two groups, chi-square not significant at the 5 per cent level, in their feelings about the ease with which they could talk with their instructors during their freshman year. Almost all of the interviewees indicated that they felt they could talk with their instructors if they wanted to do so.

TABLE XLI

ATTITUDE TOWARD THE EASE WITH WHICH ONE COULD TALK WITH
INSTRUCTORS OF INTERVIEWEES WHO CONTINUED FULL-TIME
IN GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW DURING OR AT THE
END OF THE FRESHMAN YEAR

Talk with Instructor Easily	Continued	Voluntarily Withdrew	Totals
Yes	35	31	66
No	1	5	6
Totals	36	36	72

$$\chi^2 = 0.09$$

TABLE XLII

ATTITUDE OF INTERVIEWEES WHO CONTINUED FULL TIME IN
GRAND RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960,
AND WHO VOLUNTARILY WITHDREW DURING OR AT THE
END OF THE FRESHMAN YEAR TOWARD
ACHIEVEMENT OF GOALS

Less Able to Achieve Goals	Continued	Voluntarily Withdrew	Totals
Yes	31	24	55
No	5	12	17
Totals	36	36	72

$$\chi^2 = 2.77$$

Chi-square is not significant at the 5 per cent level of confidence. Students who voluntarily withdrew did not feel they would be less able to achieve their goals as a result of leaving the junior college.

A total of thirty-one of the continuers felt they would be less able to achieve their goals if they did not complete their program at the junior college. Of the five who felt they could achieve their goals, one had no clear cut goals at the time of the interview, one indicated that his curriculum could be completed at another institution but that he would be less able to achieve his goals if he did not complete a degree. The three remaining continuers felt they could achieve their goals without continuing although they were still in college at the time of the interview. One of these three was planning on transferring to a terminal-technical curriculum at a four-year institution, however. Thus, only two continuers felt they could achieve their goals without further education.

The primary considerations in the attitude of the importance of continuing a collegiate program given by the continuation group were related to vocational preparation, the kind of job the student sought, and getting ahead in the world.

A total of twenty-four of the voluntary withdrawals felt they would be less able to achieve their goals if they did not complete further education. Twelve of these twenty-four were currently attending other collegiate institutions

and one was in an on-the-job training program in a hospital laboratory. Of the remaining eleven out of the twenty-four, eight planned on re-enrolling in Grand Rapids Junior College either in February or September of 1961 either on a full or a part-time basis. One additional person had not made up his mind about returning to school at the time of the interview. Of the eleven who were not pursuing an educational program at the time of the interview, the eight or nine who planned on returning to school in February or September were motivated by vocational considerations.

A total of twelve of the voluntary withdrawals felt they would be able to achieve their goals without continuing at Grand Rapids Junior College. However, four of these twelve were enrolled in other types of schools (two in business college and two in a commercial art and design school). These four students felt that the schools they were attending were more appropriate for their interests and type of training desired. The remaining eight saw no need for further education to achieve their goals.

TABLE XLIII

ATTITUDE OF INTERVIEWEES WHO CONTINUED FULL-TIME IN GRAND
RAPIDS JUNIOR COLLEGE IN SEPTEMBER, 1960, AND WHO
VOLUNTARILY WITHDREW DURING OR AT THE END OF THE
FRESHMAN YEAR TOWARD THE ADEQUACY OF JUNIOR
COLLEGE CURRICULUMS IN COMPARISON TO OTHER
COLLEGES AND UNIVERSITIES IN THE STATE
AND OTHER MEANS OF OBTAINING
VOCATIONAL TRAINING OF THE
TERMINAL-TECHNICAL
NATURE

Junior College Curriculums as Adequate as other Schools	Continued	Voluntarily Withdrew	Totals
Yes	32	32	64
No	2	4	6
Do not know	2	0	2
Totals	36	36	72

$$\chi^2 = 0.37$$

Chi-square is not significant at the 5 per cent level of confidence. Voluntary withdrawals did not feel differently from those who continued in the junior college about the adequacy of curriculums offered. Both continuation and voluntary withdrawal students in overwhelming proportion felt the academic program was on a par with other institutions in the state or with other means of obtaining terminal-technical training.

The results of this study are in agreement with the findings of withdrawals' attitudes toward the colleges from

which they withdrew reported by Iffert, Los Angeles Valley Junior College, and Jones.¹³

VI. ANALYSIS OF PERSONAL INTERVIEW DATA

In addition to studying the quantitative aspects of freshmen persistence at Grand Rapids Junior College, the researcher was interested in investigating whether freshmen who voluntarily withdrew possessed attitudes toward the junior college, goals, and levels of aspiration which were different from freshmen who persisted full-time into their sophomore year at Grand Rapids Junior College.

Thirty-six students who continued full-time into the sophomore year at Grand Rapids Junior College and thirty-six students who voluntarily withdrew during or at the end of the freshman year were individually interviewed by the researcher.

The total interview group was composed primarily of eighteen and nineteen-year old, white, single students enrolled in transfer curriculums. The great majority of these were enrolled in liberal arts, teaching, engineering, or secretarial curriculums. The total interview group was almost equally divided between males and females.

¹³See reference to Iffert, p. 22; and Los Angeles Valley Junior College and Jones, p. 23.

TABLE XLIV
AGE OF CONTINUER AND VOLUNTARY
WITHDRAWAL INTERVIEWEES

Age	Continued	Voluntarily Withdrew	Totals
18	4	7	11
19	28	28	56
20	4	1	5
Totals	36	36	72

TABLE XLV
RACE OF CONTINUER AND VOLUNTARY
WITHDRAWAL INTERVIEWEES

Race	Continued	Voluntarily Withdrew	Totals
White	32	34	66
Negro	4	2	6
Totals	36	36	72

TABLE XLVI
MARITAL STATUS OF CONTINUER AND VOLUNTARY
WITHDRAWAL INTERVIEWEES

Marital Status	Continued	Voluntarily Withdrew	Totals
Single	34	29	63
Married	2	7	9
Totals	36	36	72

TABLE XLVII

SEX OF CONTINUER AND VOLUNTARY
WITHDRAWAL INTERVIEWEES

Sex	Continued	Voluntarily Withdrew	Totals
Male	19	19	38
Female	17	17	34
Totals	36	36	72

TABLE XLVIII

JUNIOR COLLEGE CURRICULUM ENROLLED
IN FRESHMAN YEAR OF CONTINUER
AND VOLUNTARY WITHDRAWAL
INTERVIEWEES

Junior College Curriculum	Continued	Voluntarily Withdrew
Liberal Arts	11	11
Teaching	7	5
Engineering	7	7
Business Administration	2	1
Forestry	1	1
Pharmacy		2
Medical Technology	1	2
Secretarial	5	4
Pre-Veterinarian		1
Retailing		1
Terminal Business Administration		1
Physical Therapy	1	
Drafting	1	
Total in Transfer Curriculums	30	30
Total in Terminal Curriculums	6	6

TABLE XLIX

OCCUPATION OF THIRTY-SIX VOLUNTARY WITHDRAWAL
INTERVIEWEES IN THE FALL, 1960

Occupation	Number
Attending another collegiate institution	12
Attending business college	2
Attending commercial art and design school	2
On-the-job training in hospital laboratory	1
Office or secretarial positions	8
Retail store positions	6
Manual or unskilled labor	4
Housewife	1
<hr/>	
Total	36

Almost one-half of the voluntary withdrawal interview group were continuing an educational program. Although they were classified as "dropouts" from Grand Rapids Junior College, they were, in reality, "transfers" to other educational and training institutions.

Student expectations related to obtaining a post-high school education were predominantly vocationally oriented although the desire to broaden oneself and/or to pursue a specific area of interest was a strong secondary consideration. These two primary expectations held for both the continuation and the voluntary withdrawal groups. These findings are corroborated by those of Iffert.¹⁴

¹⁴See reference to Iffert, p. 17.

Voluntary withdrawals indicated in a few instances that they went to college simply because everyone else was doing it or because it was the thing to do. Attendance as a result of parental desire was indicated with similar frequency in both groups.

Only five of the seventy-two interviewees had applied to other colleges prior to enrolling in Grand Rapids Junior College. Three of these five had been accepted by other colleges but decided not to go for various reasons, one was not acceptable to two other colleges, and the fifth was to have taken a pre-admission examination.

The major reasons interviewees enrolled in the junior college were: (1) reduced cost, (2) high academic rating of the junior college, and (3) proximity and convenience. Almost twice as many continuers as withdrawals mentioned reduced cost as a reason. Parental wishes were mentioned equally by both groups, as was a "trial period" to determine whether they could successfully pursue college-level work. A few withdrawals indicated they had decided to go to college too late to apply elsewhere while this was not mentioned by continuers. Friends going to the junior college was also more frequently given by the withdrawals than by continuers.

Fourteen of the continuers indicated they could not have afforded to go away to college while ten of the withdrawals so indicated. In this connection, it is interesting to note that more students in both groups indicated they

could have afforded to go away to college than could not.

Engineering, secretarial, and teaching accounted for twenty of the thirty-six continuer interviewees' expectations immediately after college. Nine students were undecided at the time they enrolled in junior college.

A total of eleven of the continuers expected to be housewives fifteen years after completion of college. Another three expected to be married and working. Eleven were undecided.

Teaching, secretarial, and engineering accounted for eighteen of the thirty-six voluntary withdrawal interviewees' expectations immediately after college. Only three were undecided at the time they enrolled in the junior college.

Eleven of the withdrawals expected to be housewives fifteen years after completion of college and eleven were undecided. Another five expected to be married and working fifteen years after completion of college.

Twenty voluntary withdrawals and fourteen continuers changed their vocational plans subsequent to their enrollment in the junior college.

Of the voluntary withdrawals, seven changes involved a curriculum leading to a baccalaureate degree, one involved an apprenticeship, and seven involved continued training in a post-high school institution but at less than the baccalaureate degree level. Thus, only five of the changes involved no further educational program.

Of the fourteen continuer student changes, seven involved completing a baccalaureate degree, four involved completing a junior college program, one planned on entering the service, and two were undecided.

The changes in vocational goal fifteen years after college completion were of the same nature for both the fourteen continuation and the twenty voluntary withdrawal students who changed their minds subsequent to enrolling in the junior college.

Reasons given for withdrawal in rank order were:

(1) employment; (2) transfer to another institution; (3) poor academic performance; (4) junior college not real college life, and tired of school and study routine; (5) marriage; and (6) miscellaneous.

Male voluntary withdrawals indicated that entering military service and finances were not a factor in their withdrawal. Lack of interest in studies and discouragement by low grades was a definite factor in almost one-half of the male voluntary withdrawals. Female voluntary withdrawals indicated that finances were not a factor in their withdrawal, nor was lack of interest as contrasted with male voluntary withdrawals. Marriage and employment were contributing factors for some of the females.

A total of eight of the continuers indicated that they had at some time thought about dropping out of the junior college. Four of these continued due to their parents wishes, two considered dropping because they had no goal, one

considered dropping because he became ill for a while, and one had already started the junior college when he thought about transferring to another institution.

A total of thirteen continuers indicated they considered transferring from the junior college but had not done so up to the time interviewed. Six of these could not afford to transfer, one was already enrolled in the junior college; two students' parents wished them to stay at the junior college for another year, one carried too low a grade point average, one was uncertain of vocational choice and did not want to spend the money involved in going away to college, one did not learn about the technical programs at a four-year college until after enrollment in the junior college, and one changed his mind about the school he intended to transfer to and did not carry out the transfer planned.

A total of thirty of the thirty-six continuers planned on transferring and only one of these thirty planned on less than a baccalaureate degree after transfer.

A total of eighteen of the voluntary withdrawals indicated they would like to return to Grand Rapids Junior College in the future; fourteen actually expect to return in the future. Twenty-four of the voluntary withdrawals indicated they would like to return to college other than Grand Rapids Junior College while eighteen actually expect to do so. Of course, sixteen of these eighteen were currently attending another educational institution. Several indicated they would like to return to the junior college and then move

on to another institution.

No appreciable difference was noted between the two groups in dating habits. Thirty-one continuers and thirty-five withdrawals indicated they dated during the freshman year. The withdrawals were not less socially involved with junior college students than were interviewees who persisted into the second year at the junior college. Both groups indicated almost unanimously that they found a group of Grand Rapids Junior College students with whom they shared common interests during the freshman year.

By far the greatest majority of both continuers and voluntary withdrawals felt they could have performed better academically than they did during their freshman year. A concomitant attitude was one of displeasure with their performance.

The most frequent reason given by both continuer and voluntary withdrawal interviewees was not investing enough time in study. Lack of interest in studies ranked second for the voluntary withdrawal group. The most frequent positive factors mentioned by the withdrawal group were hard study and more interest in subjects.

Working, other interests and activities, lack of interest in studies, poor high school preparation and change from high school were frequently mentioned by the continuer group. On the positive side, hard study was most frequently mentioned by continuers.

Since the thirty-six voluntary withdrawal interview group contained seventeen individuals who were continuing an educational program at other institutions the researcher was interested in determining whether major differences existed between these two sub-types of voluntary withdrawals on certain interview variables.

TABLE L

SEX OF VOLUNTARY WITHDRAWALS WHO CONTINUED AN
EDUCATIONAL PROGRAM ELSEWHERE AND WHO
TERMINATED FORMAL EDUCATION

Sex	Transferred	Terminated	Totals
Male	10	9	19
Female	7	10	17
Totals	17	19	36

Major differences did not exist between the two sub-groups on the basis of sex.

TABLE LI

CURRICULUM OF VOLUNTARY WITHDRAWALS WHO CONTINUED
AN EDUCATIONAL PROGRAM ELSEWHERE AND WHO
TERMINATED FORMAL EDUCATION

Junior College Curriculum	Transferred	Terminated	Totals
Liberal Arts	6	4	10
Engineering	4	3	7
Teaching	4	2	6
Business Administration		1	1
Secretarial		4	4
Other	3	5	8
Totals	17	19	36

No secretarial students had transferred to another institution; frequencies in the other curriculums were not appreciably different.

Voluntary withdrawals who transferred to another institution and who terminated formal education did not differ with respect to their expectations of their post-high school education at time of entry into the junior college. As previously mentioned, the primary motivation for college attendance was one of vocational preparation, desire for a better job, and more money.

Lower cost was the most frequently given reason for enrolling in the junior college for both sub-groups. Of almost equal frequency for the students who had terminated an educational program were good reputation of the junior college, inability to go away to college, and proximity. With the group who transferred after withdrawal from the junior college, inability to go away to college, good reputation, and proximity were not as frequently given.

Vocational expectations after completion of college did show some difference between the two sub-groups. Fifteen of those students who subsequently transferred from junior college had professional-level occupational aspirations at the time of entry into junior college. Only one-half of the students who terminated formal education had aspirations at this level. Such findings are, at best, only highly suggestive.

Eight of the nineteen students who had terminated a formal educational program at the time they were interviewed expected to continue some form of formal training at Grand Rapids Junior College in the future and one anticipated going into an apprenticeship.

The most frequent reasons given for withdrawal by students who terminated formal education were: (1) employment, (2) tired of school, (3) academic difficulties, and (4) marriage and junior college not real college life. The most frequent reasons given by students who transferred were related to the desire to go away to school or to obtaining more specialized training.

Thirteen of the withdrawals who continued and eleven who terminated a formal educational program felt they would be less able to achieve their goals if they did not complete a formal program.

The majority of both groups felt curriculums offered at the junior college were as good as other colleges in the state or other means of obtaining terminal-technical training. The ratings of instruction received at the junior college did not vary markedly from one sub-group to the other. Nor did the attitudes of the sub-groups vary appreciably in regard to the co-curricular activities program. Marked differences did not exist between the two sub-groups in their attitudes toward their academic performance while in attendance at the junior college.

VII. TESTING OF HYPOTHESES

Hypothesis I: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to high school preparation. The findings of this study revealed that significant differences existed in:

(1) curriculum completed in high school; freshmen who completed a non-college preparatory curriculum voluntarily withdrew to a greater extent and were dismissed markedly more than freshmen who completed the college preparatory curriculum; (2) high school decile rank in class; no significant difference existed between the continuer and voluntary withdrawal groups whereas the dismissed group was composed of freshmen who had performed at a significantly lower academic level in high school; and (3) post-high school educational plans; freshmen who voluntarily withdrew planned on less than a baccalaureate degree to a greater extent than freshmen who persisted into their sophomore year.

The study findings further revealed that significant differences did not exist in: (1) high school attended, (2) vocational choice following completion of education as determined late in the senior year in high school, (3) certainty of going into specialized training or college after high school graduation as determined late in the senior year in high school, (4) plans made for attending college as determined late in the senior year of high school. Hypothesis I

is accepted inasmuch as significant differences did exist in some of the selected variables relating to high school preparation.

Hypothesis II: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to family influences. The findings of this study revealed that significant differences did not exist in:

(1) number of children in the family, (2) attendance of siblings in college, (3) parents' educational plans for their child as determined late in the senior year of high school, (4) parents' plans for financially assisting their child's post-high school education as determined late in the senior year of high school, (5) the educational attainment of the father, and (6) the educational attainment of the mother. Hypothesis II is rejected as none of the selected variables relating to family influences were significant.

Hypothesis III: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to Grand Rapids Junior College academic performance. The findings of this study revealed that significant differences existed in: (1) curriculum enrolled in upon entry into Grand Rapids Junior College in September, 1959; students in in secretarial and "other" curriculums voluntarily withdrew to a much greater extent and students in teaching and business

administration voluntarily withdrew to a slightly greater extent than freshmen enrolled in liberal arts and engineering; business administration students experienced over twice their theoretical dismissal frequency; (2) both the first semester grade point average and the first year grade point average at Grand Rapids Junior College; academic performance was not significantly different between the continuer and voluntary withdrawal groups; the group of students who were dismissed, however, performed at a significantly lower academic level than either the continuer or voluntary withdrawal groups; (3) enrollment in remedial English; freshmen who were subsequently dismissed were enrolled in remedial English to a much greater extent than either the group who continued or the group who voluntarily withdrew; and (4) total number of remedial courses enroll in; as with enrollment in remedial English, freshmen who were dismissed were enrolled in remedial courses to a much greater extent than either continuer or voluntary withdrawal freshmen.

The study findings further revealed that significant differences did not exist in the Grand Rapids Junior College placement test scores administered late in the junior year in high school. Hypothesis III is accepted inasmuch as significant differences did exist in some of the selected variables relating to Grand Rapids Junior College academic performance.

Hypothesis IV: Significant differences exist between full-time freshmen who continued and full-time freshmen who

withdrew during the period studied in amount of participation in college-sponsored co-curricular activities. The findings of this study revealed that significant differences did not exist in amount of time spent in college-sponsored co-curricular activities. Hypothesis IV is rejected.

Hypothesis V: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in amount of outside paid employment. The findings of this study revealed that significant differences did not exist in amount of time spent in outside paid employment. Hypothesis V is rejected.

Hypothesis VI: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to attitudes toward Grand Rapids Junior College. The findings of this study revealed that significant differences did not exist in: (1) attitude relating to attainment of goals as a result of withdrawing from Grand Rapids Junior College, (2) attitude toward the adequacy of Grand Rapids Junior College curricular offerings in comparison with other colleges and universities in the state or other means of obtaining terminal-technical vocational training, (3) attitude toward the quality of instruction received at Grand Rapids Junior College, and (4) attitude toward the ease of discussing problems and interests with Grand Rapids Junior College instructors. In addition to these four statistically non-significant findings, no major differences existed in reasons

for enrolling in Grand Rapids Junior College, attitude toward adequacy of co-curricular activities program, attitude toward the ease of getting acquainted and socializing with other students at Grand Rapids Junior College, and attitude toward academic performance at Grand Rapids Junior College. Hypothesis VI is rejected.

Hypothesis VII: Significant differences exist between full-time freshmen who continued and full-time freshmen who withdrew during the period studied in the selected variables relating to level of aspiration.

The data on what students expected to obtain through a post-high school education, employment expectations immediately after completing college, and changes of vocational goal did not lend themselves to statistical analysis.

The major purpose in attending college for both groups was vocational preparation. Employment expectations at the time of initial enrollment in the junior college did not markedly differ between the two groups. The data on changes of vocational plans subsequent to enrollment in the junior college were too limited to make any definitive statement possible.

Although hypothesis VII can not be statistically accepted or rejected, the data available is suggestive of the lack of major differences between the two groups in the selected variables relating to level of aspiration at the time of entry into Grand Rapids Junior College.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FURTHER RESEARCH

I. THE PROBLEM

The purpose of this study was to investigate the relationship of selected variables in high school preparation, family influences, community-junior college academic performance, participation in college co-curricular activities, paid employment, attitudes toward the community-junior college, and level of aspiration to persistence of full-time freshmen in a metropolitan, public community-junior college.

II. DELIMITATION OF THE STUDY

The study was limited to the June, 1959, graduates of the Grand Rapids city public high schools who enrolled full-time in Grand Rapids Junior College in September, 1959. The study was further limited to an analysis of persistence during the freshman year only and covered the period September, 1959 through September, 1960 inclusive.

III. REVIEW OF RELATED RESEARCH

Much has been published on the quantitative aspects of college attrition in four-year institutions. A large

body of comparable material is not available in published form for two-year institutions, however. The understanding of the dynamics involved in attrition is even more limited for both two- and four-year institutions. Few of the studies reported for either type of institution had separated voluntary withdrawals from withdrawals who were dismissed by the institution.

The review of related research presented in this study was grouped into thirteen broad categories: (1) magnitude of student attrition, (2) transfer to other institutions, (3) time of withdrawal, (4) reasons for going to college, (5) reasons for dropping out of college, (6) occupational choice, (7) withdrawal and reaction to college, (8) withdrawal and test scores, (9) withdrawal and academic performance in college, (10) withdrawal and academic performance in high school, (11) withdrawal and outside employment, (12) withdrawal and participation in co-curricular activities, and (13) withdrawal and sex and marital status.

The review concludes with a presentation of the areas of agreement and areas of disagreement in research findings. Some unanswered questions relating to freshman persistence in the community-junior college are posed.

IV. METHODOLOGY

The data upon which this study was based were obtained from parent and student questionnaires completed in May of the students' senior year in high school, official Grand

Rapids Junior College records, individual interviews, and a follow-up study of the June, 1959, graduates from the Grand Rapids public city high schools.

A total of three-hundred and sixteen freshmen who enrolled full-time in September, 1959, comprised the sample studied.

The total sample was broken down into those students who persisted into the second year full-time at Grand Rapids Junior College, those who voluntarily withdrew during or at the end of the freshman year, and those who were dismissed by the college during or at the end of the freshman year.

The sub-group who voluntarily withdrew were then further sub-divided into those who withdrew and transferred to another institution and continued an educational program and those who withdrew and terminated a formal educational program.

Thirty-six voluntary withdrawals were paired with thirty-six students who continued full-time in Grand Rapids Junior College the second year. A standard, structured interview was conducted with seventy-two individuals.

The data obtained from the interviews with the thirty-six voluntary withdrawals was then divided into those who withdrew and transferred to another institution and those who withdrew and terminated a formal educational program.

Chi-square with Yates' correction for continuity, "t" and "F" analysis of variance tests were applied as appropriate. The 5 per cent level of confidence was set

for the statistical tests of significance.

V. FINDINGS

Magnitude of Withdrawal

A total of 29.7 per cent withdrew during or at the end of the freshman year; 18.6 per cent voluntarily withdrew while 11.1 per cent were dismissed by the college.

Time Withdrawal Occurred

One-third of the voluntary withdrawals occurred during or at the end of the first semester while the remaining two-thirds occurred during or at the end of the second semester. Over three-fourths of the dismissals occurred at the end of the second semester.

Post-Withdrawal Occupation

Follow-up information obtained on forty-six voluntary withdrawals and twenty-five dismissals in October, 1960, revealed that twenty-two were attending another educational institution or following a formal training program, forty-three were working and/or married, and six were in the military service. Thus, 31 per cent of the withdrawals and dismissals for whom follow-up information was available were continuing a formal educational program elsewhere.

Variables Significantly Related To Persistence

Eight of the variables studied were found to be statistically significant at or beyond the 5 per cent level

of confidence. These variables were: (1) sex, (2) curriculum completed in high school, (3) high school decile rank, (4) educational plans of the students, (5) junior college curriculum enrolled in September, 1959, (6) first semester grade point average and first year grade point average, (7) enrollment in remedial English, and (8) total number of remedial courses in which the student was enrolled.

The findings of this study revealed that: (1) females voluntarily withdrew to a greater extent than males; (2) junior college freshmen who completed a non-college preparatory curriculum in high school voluntarily withdrew to a greater extent than did college-preparatory students and were dismissed to a marked degree more than were college-preparatory students; there was no significant difference on the basis of sex in the type of high school curriculum completed; (3) less than one-half the chi-square theoretical frequency of dismissed students fell in the upper three deciles of high school rank while over twice the chi-square theoretical frequency fell in the lowest three deciles; there was no significant difference between the continuers and the voluntary withdrawals on high school decile rank; markedly more females fell in the upper three deciles and less than the chi-square theoretical frequency in the lowest three deciles while the reverse was true for males, (4) voluntary withdrawals as a group planned on training at less than the baccalaureate degree level to a greater extent than students who continued; no significant difference existed in educational plans on the

basis of sex; (5) freshmen enrolled in the secretarial and "other" curriculums voluntarily withdrew to a greater extent, engineering students were not dismissed to as great an extent, and business administration students were dismissed to a much greater extent; engineering was virtually a male curriculum; business administration was also predominantly male while secretarial was completely female; (6) freshmen who voluntarily withdrew performed as well academically as freshmen who persisted full-time into the sophomore year at the junior college; the significant relationship between both first semester and freshman year grade point averages and persistence existed due to the fact of academic dismissal of students with a low grade point average; (7) dismissed students were enrolled to a much greater extent in remedial English; males were enrolled to a much greater extent than females in remedial English; (8) as with remedial English, more dismissed students and more males were enrolled in remedial courses.

Comparison of Voluntary Withdrawals Who Continued Education Elsewhere With Voluntary Withdrawals Who Terminated Formal Education

Data on occupation in the Fall of 1960 were available on forty-six voluntary withdrawals. Seventeen were continuing an educational program at another institution while twenty-nine were working and/or married or in the military service. Statistically significant differences were found between these two sub-groups on: (1) high school curriculum completed; a greater number of those who terminated had

completed a non-college preparatory high school curriculum; (2) first year grade point average; the two sub-groups performed equally well the first semester, but those who terminated at the end of the freshman year performed significantly lower the second semester than those who withdrew and transferred at the end of the freshman year. On all other previously significant variables, the two sub-groups were not significantly different. The two sub-groups of students who voluntarily withdrew were not materially different in the characteristics investigated with the two exceptions noted.

Variables Non-Significantly Related
To Persistence

Eighteen of the variables studied were found to be statistically non-significant at the 5 per cent level of confidence. These variables were: (1) high school attended, (2) certainty of going into specialized training after high school, (3) plans for attending college, (4) vocational choice, (5) siblings' attendance at college, (6) total number of children in the family, (7) parents' educational aspiration for their child, (8) parents' plans for financing their child's education beyond high school, (9) educational attainment of the father, (10) educational attainment of the mother, (11) enrollment in remedial reading, (12) test scores, (13) amount of paid employment, (14) participation in the junior college co-curricular activities program, (15) attitude toward the quality of instruction received, (16) attitude toward ease of talking with instructors, (17) attitude

toward goal attainment as a result of continuance or withdrawal from the junior college, and (18) attitude toward the adequacy of Grand Rapids Junior College curriculums in comparison with other colleges and universities in the state or other means of obtaining vocational training of a terminal-technical nature.

Interview Data Analysis

Student expectations related to obtaining a post-high school education were predominantly vocationally oriented for both freshmen who continued into the second year at the junior college and freshmen who voluntarily withdrew. Very few interviewees had applied for admission to other collegiate institutions. Reduced cost, high academic rating of the junior college, and proximity were the major reasons given for attending the junior college by both students who continued and who voluntarily withdrew. In the case of both continuers and voluntary withdrawals, more could have afforded to go away to college than could not.

Teaching, engineering, and secretarial accounted for the majority of curriculum enrollments in both groups. A total of 56 per cent of the voluntary withdrawals and 39 per cent of the continuers changed their vocational plans subsequent to enrollment in the junior college. Only five of the voluntary withdrawals changes involved no further educational program. One of the continuers planned on entering the service and two were undecided what they would do at the end of the second year.

Reasons given for withdrawal in rank order were:

(1) employment; (2) transfer to another institution; (3) poor academic performance; (4) junior college not real college life, and tired of school and study routine; (5) marriage; and (6) miscellaneous.

Thirty of the thirty-six continuers planned on transferring at the end of the second year. Fourteen of the voluntary withdrawals expected to return to the Grand Rapids Junior College in the future to continue an educational program either full-time or part-time. An additional eighteen withdrawals expected to return to a college other than Grand Rapids Junior College in the future. Sixteen of these eighteen were enrolled in another collegiate institution at the time of interview.

No appreciable difference was noted between the two groups in dating habits. Both groups found it easy to become socially acclimated. Voluntary withdrawals were not less involved in co-curricular activities than were those who continued in the junior college.

Both groups felt they could have performed better academically than they did their freshman year. The most frequent reason for this being lack of adequate study.

VI. CONCLUSIONS

Less than one-third of the sample studied had withdrawn from the junior college by the beginning of the sophomore year. A fifty per cent attrition rate, so commonly attributed to public community-junior colleges, was not experienced with this sample.

The dismissal rate was not unduely high particularly when one considers the non-selective admission policy under which the Grand Rapids Junior College operated.

The critical time of withdrawal, either voluntary or by dismissal, was the end of the second semester.

The follow-up of seventy-one voluntary withdrawals and dismissals pointed up the fact that withdrawal from the junior college did not necessarily mean these students had terminated formal education. Almost one-third had transferred to another educational institution.

Females voluntarily withdrew from the junior college to a greater extent than males although their high school academic ranking as a group was above males. Females were less frequently enrolled in remedial courses than males; this finding is consistent with the high school performance rankings.

Freshmen who pursued a non-college preparatory program in high school were dismissed to a greater extent than those who completed the college-preparatory curriculum.

Freshmen who were dismissed by the junior college had performed less well as a group in high school and in Grand

Rapids Junior College, had been enrolled in remedial courses to a greater extent, and had pursued non-college preparatory programs in high school to a greater extent than freshmen who continued into the sophomore year in the junior college or voluntarily withdrew.

Secretarial students and students enrolled in "other" curriculums voluntarily withdrew to a greater extent than students in liberal arts, engineering, teaching, or business administration. This finding is consistent with the previous finding of greater voluntary withdrawal by females. There were no males in the secretarial curriculum.

The marked difference in dismissal rates between students enrolled in engineering and business administration is of interest since both curriculums consisted almost entirely of males. Freshmen males enrolled in engineering performed at a much more satisfactory level as a group than freshmen males enrolled in business administration.

The analysis of the forty-six voluntary withdrawals broken down into the sub-group who voluntarily withdrew from the junior college and continued an educational program elsewhere and the sub-group who terminated formal education revealed that the two sub-groups significantly differed on first year grade point average and high school curriculum completed. The voluntary withdrawals who terminated their formal education had a lower community-junior college first year grade point average and had completed a non-college preparatory curriculum to a greater extent than voluntary withdrawals who subsequently transferred to another

educational institution. Other than these two variables the two sub-groups of voluntary withdrawals were very similar.

High school attended, plans for going on to college, vocational choice, parents' educational aspirations and plans for financing their child's post-high school education, educational level of parents, attitudes of voluntary withdrawals toward the junior college, amount of outside employment, and amount of participation in college-sponsored co-curricular activities were all unrelated to full-time continuance into the sophomore year in the junior college.

The test battery as employed at the time this study was conducted did not differentiate between the group who persisted, the group who voluntarily withdrew, and the group who were dismissed. This raises a serious question as to the validity of the test battery results for placement of students in remedial courses, for vocational guidance, and for curriculum selection and educational planning.

Students came to college primarily for vocational preparation and selected the junior college because of low cost, high academic rating, and proximity. Students who voluntarily withdrew during or at the end of the freshman year did so in the main either to go into full-time employment or to transfer to another educational institution.

A total of seventeen of the forty-six voluntary withdrawals for whom post-withdrawal occupational information was available transferred to another educational institution or were continuing a formal training program.

Fourteen of the nineteen voluntary withdrawal interviewees expected to return to Grand Rapids Junior College in the future on either a full or part-time basis. Thus, a total of thirty-one of the thirty-six voluntary withdrawal interviewees were continuing a formal educational program elsewhere or intended to continue additional schooling in the junior college. These findings would suggest that voluntary withdrawal is, in reality, more a "transfer" to another institution or "temporary dropout" than a permanent termination of formal education.

By eliminating the seventeen voluntary withdrawals who transferred from the total dropouts in the sample, the termination of an educational program rate drops to 24.4 per cent.

There is no evidence to suggest that students who voluntarily withdrew from the college were less identified with the college or less of a participant in the co-curricular program than students who persisted full-time into the sophomore year at the junior college.

The findings of this study indicate that voluntary withdrawals as a group performed as well academically in high school and junior college as the group of freshmen who persisted full-time into the sophomore year at the junior college. The major difference between the two groups was one of vocational and educational planning. Voluntary withdrawals more frequently followed non-college preparatory high school programs, planned on less than a baccalaureate degree

to a greater extent, and were most frequently found to be enrolled in the secretarial and "other" curriculums.

Voluntary withdrawals who transferred were not appreciably different from voluntary withdrawals who terminated formal education with the exception of high school curriculum pursued and first year grade point average at the junior college. These findings would suggest that non-intellective dynamics are the significant variables operating in voluntary withdrawals' decisions to pursue post-high school educational opportunities, the nature of the educational program to be followed, and persistence in that program once having embarked upon it in the junior college.

The results of this study demonstrate the need for increased guidance and counseling on an individual basis in high school as vocational and educational decisions are being made and after enrollment in the junior college. A comprehensive orientation to the junior college, the world of work, and adult life is indicated. The type of orientation program suggested here would of necessity require a continuous on-going program which might well last during the entire freshman year and prior to transfer to another institution or commencement of full-time employment.

As a result of this investigator's inquiry into some of the quantitative and qualitative aspects of freshman withdrawal from a public community-junior college, several overriding conclusions appear warranted.

Steps should be taken at both the secondary and community-junior college level to curtail the extensive loss to society of capable females who withdraw from a post-high school educational program as a result of either more immediate employment or marriage desires or because of relatively low vocational aspirations. Certainly, the community-junior college faculty and guidance staff can not attempt to do this alone. High school teachers and guidance workers should begin early in the high school career to assist female students to realistically plan for developing their abilities to the optimal level rather than merely letting them progress through high school with the intent of early marriage and becoming a housewife.

Students who have had a poor academic record in high school should be given the opportunity to repair deficiencies and to demonstrate the ability and desire to handle college-level academic work before being placed in a formal transfer or terminal curriculum.

Since the freshman year is the most critical period when students' decisions are made to continue or terminate formal education, the total instructional and student personnel programs should be so structured as to provide the climate for and stimulation to optimal development of each student. This necessitates excellent instruction, comprehensive counseling and guidance, and relating the curricular and co-curricular programs to the interests and needs which are of paramount importance to freshmen students.

Finally, every effort should be made on the part of the instructional and student personnel staffs in high schools and community-junior colleges alike to raise the vocational level of aspiration of students whose prognosis for collegiate success is good but whose vocational and educational plans are less than that of which they are capable.

VII. IMPLICATIONS FOR FURTHER RESEARCH

The findings of this study and limited or non-existent published materials on problems related to it suggest the following areas for further research:

1. An investigation of the magnitude, on both a local basis at the Grand Rapids Junior College and on a statewide basis for all community-junior colleges in Michigan, of student withdrawal prior to completion of college-parallel and terminal-technical curriculums resulting from transfer to other collegiate institutions and training programs. This study should also determine how many of these students ultimately graduate from the institution to which they transferred.

2. An investigation of the magnitude, on both a local basis at the Grand Rapids Junior College and on a statewide basis for all community-junior colleges in Michigan, of changes in major field of study after matriculation in the junior college. This study should also determine how many of these students ultimately graduate from the junior college, graduate and transfer to another institution, transfer to another institution and withdraw, and withdraw from the

junior college terminating their formal education.

3. An investigation of the effect of working part-time upon academic performance. Since financial problems are not a major reason for withdrawal from Grand Rapids Junior College, such a study would be of interest.

4. An investigation of the effect of participation in co-curricular activities upon academic performance.

5. An investigation of the magnitude, on both a local basis at the Grand Rapids Junior College and on a statewide basis for all community-junior colleges in Michigan, of completion of two full years of either transfer or terminal curriculums without graduation from the junior college.

6. An investigation of the magnitude, on both a local basis at the Grand Rapids Junior College and on a statewide basis for all community-junior colleges in Michigan, of the withdrawal rate of adults entering college credit courses on a part-time basis.

7. An investigation of difference in withdrawal rate, on both a local basis at the Grand Rapids Junior College and on a statewide basis for all community-junior colleges in Michigan, of day division students enrolled full-time and part-time.

8. An investigation of the magnitude, on both a local basis at the Grand Rapids Junior College and on a statewide basis for all community-junior colleges in Michigan, of withdrawals' subsequent re-enrollment in the junior college on either a full or part-time basis.

9. The eight preceding suggestions for further research would yield valuable information on the quantitative aspects of the withdrawal problem in the junior colleges of Michigan. Certainly as important, and considerably more difficult, is the need for a study of the non-intellective dynamics involved in the decision to withdraw on the part of those students who voluntarily withdraw from the junior college and terminate their formal education. This type of motivational research study should include investigation of such individuals' emotional needs, levels of aspiration, goals, and willingness to divert immediate want satisfactions in order to achieve long-range goals. The findings of a study of this nature could be of major assistance in the guidance and counseling program and curriculum planning in the junior college.

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APPENDIX

APPENDIX A

CARD NUMBER ONE LAYOUT

OBTAINED FROM M.S.W.		OBTAINED FROM M.S.W.		OBTAINED FROM S.C.I.C.	
STUDY CARD #2		STUDY CARD #3		OFFICIAL RECORDS	
SERIAL NUMBER	CITY OR TWP	NAME	SCHOOL ATTENDED	GRADE	SEX
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L. W. 0008 (2-25)

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EN. MATH 4
EN. MATHS
EN. READING
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G.P.A.
1st YEAR
G.P.A.

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NAME

CARD NUMBER

ASTCO 1XS

L.W. 0000 (2-25)

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ASTCO 1XB

K. W. 0000 (3-25)

APPENDIX D

CONTINUATION STUDENT
INDIVIDUAL INTERVIEW

Name: _____

Address: _____

Telephone No: _____

Type of Lodging: _____

Interview Date: _____

Sex: _____

Age: _____

Race: _____

Marital Status: _____

If married, wife/husband working? Yes__No__

Veteran: No__Yes__

Curriculum: _____

1. Did you work while attending G.R.J.C.
last year?

Yes: part-time _____
full-time _____

What was the nature of the job?

No: _____

How many hours per week did you spend in paid employment? _____

2. Could you have continued in G.R.J.C. without
working? Yes__No__

Why?

3. Did you participate in college sponsored co-curricular
activities during your freshman year? Yes__No__

What activities were they?

How many hours/week spent in each?

4. What did you expect to obtain in your post-high school education?

5. Did you apply for admission to other colleges? Yes___No___

If yes, how many did you apply to?_____

If yes, how many were you accepted by?_____

If admitted to another college, why didn't you go?

6. What were your reasons for enrolling in G.R.J.C.?

7. When you enrolled in G.R.J.C., what did you expect to do after completion of college?

8. When you enrolled in G.R.J.C., what position did you expect to hold fifteen years after completion of college?

9. Have you changed your mind? Yes___No___

What are your plans now?

If yes, what do you expect to do after completion of college?

If yes, what position do you expect to hold fifteen years after completion of college?

10. Have you ever considered withdrawing from G.R.J.C.? Yes___No___

If yes, why didn't you?

11. Have you ever considered transferring from G.R.J.C.? Yes___No___

If yes, why didn't you?

12. Do you feel that you would be less able to achieve your goals (vocational, social, economic, personal) if you did not complete your program of studies at G.R.J.C.? Yes__No__ Why?

13. Transfer curriculum students: Do you feel that the Junior College program of studies in your field of interest is as good as other colleges and universities in Michigan? Yes__No__ Why?

Terminal curriculum students: Do you feel that the Junior College program of studies in your field of interest is as good as other means of obtaining the desired vocational skills? Yes__No__ Why?

14. How do you feel about the quality of instruction you received last year at G.R.J.C.?

15. Did you feel free to talk with your instructors about your problems and interests last year? Yes__No__ Why?

16. How well did the co-curricular activities program meet your interests last year?

17. Did you date last year? Yes__No__

If yes, G.R.J.C. students__high school students__students from another college__non-students__

13. Did you find a group of G.R.J.C. students with whom you shared common interests last year? Yes___No___
19. What are your feelings toward your academic performance at G.R.J.C. last year?
20. What do you attribute this to?
21. Additional comments

APPENDIX D (continued)

WITHDRAWN STUDENT
INDIVIDUAL INTERVIEW

Name: _____

Address: _____

Telephone No: _____

Type of Lodging: _____

Interview Date: _____

Sex: _____

Age: _____

Race: _____

Marital Status: _____

If married, wife/husband working? Yes ___ No ___

Veteran: No ___ Yes ___

Curriculum: _____

1. What are you doing now?

2. Did you work while attending G.R.J.C. last year?

Yes: part-time _____
full-time _____

No: _____

What was the nature of the job?

How many hours per week did you spend in paid employment? _____

3. Could you have continued in G.R.J.C. without working? Yes ___ No ___
Why?4. Did you participate in college sponsored co-curricular activities
during your freshman year? Yes ___ No ___

What activities were they? How many hours/week spent in each?

5. What did you expect to obtain in your post-high school education?

6. Did you apply for admission to other colleges? Yes___No___

If yes, how many did you apply to?_____

If yes, how many where you accepted by?_____

If admitted to another college, why didn't you go?

7. What were your reasons for enrolling in G.R.J.C.?

8. When you enrolled in G.R.J.C., what did you expect to do after completion of college?

9. When you enrolled in G.R.J.C., what position did you expect to hold fifteen years after completion of college?

10. Have you changed your mind? Yes___No___

What are your plans now?

If yes, what do you expect to do in the next five years?

If yes, what position do you expect to hold fifteen years from now?

11. What were your reasons for withdrawing from G.R.J.C.?
12. Were any of the following factors in your withdrawal in addition to the reasons you just gave?
- A. Finances
 - B. Lack of interest in studies
 - C. Discouragement by low grades
 - D. Full-time employment
 - E. Service
 - F. Marriage
13. Would you like to return to G.R.J.C.? Yes___No___ Why?
14. Would you like to return to college elsewhere? Yes___No___ Why?
15. Do you expect to return to G.R.J.C. in the future? Yes___No___ Why?
16. Do you expect to return to another college in the future? Yes___No___ Why?
17. Do you feel that you will be less able to achieve your goals (vocational, social, economic, personal) since you did not complete your program of studies at G.R.J.C.? Yes___No___ Why?
18. Transfer curriculum students: Do you feel that the Junior College program of studies in your field of interest is as good as other colleges and universities in Michigan? Yes___No___ Why?
- . Terminal curriculum students: Do you feel that the Junior College program of studies in your field of interest is as good as other means of obtaining the desired vocational skills? Yes___No___ Why?

19. How do you feel about the quality of instruction you received last year at G.R.J.C.?
20. Did you feel free to talk with your instructors about your problems and interests last year? Why?
21. How well did the co-curricular activities program meet your interests last year?
22. Did you date last year? Yes__No__
If yes, G.R.J.C. students__high school students__students from another college__non-students
23. Did you find a group of G.R.J.C. students with whom you shared common interests last year? Yes__No__
24. What are your feelings toward your academic performance at G.R.J.C. last year?
25. What do you attribute this to?
26. Additional comments

APPENDIX E
POSTCARD INQUIRY

Parent's Address

(Tear Along Perforation)

Please check appropriate boxes and fill in the information requested.

My son or daughter at present is:

- ☐ Attending another college
Name of college _____
- ☐ Pursuing another type of post-high school training program (apprenticeship, business college, etc.)
Type of training _____
Place of training _____
- ☐ Working full-time ☐ days ☐ nights (check day or night)
- ☐ Working part-time ☐ days ☐ nights (check day or night)
Job is located ☐ in ☐ away from Grand Rapids area
- ☐ Not employed
- ☐ Housewife full-time ☐ in ☐ away from Grand Rapids
- ☐ In the military service
- ☐ Other (Specify) _____

APPENDIX E (continued)

POSTCARD INQUIRY - REVERSE SIDE

Researcher's Address

Dear Parents:

In the continuing interest of attempting to better serve the college-age youth in the Grand Rapids area, a further research step is being taken by the undersigned in cooperation with Grand Rapids Junior College. Our records show that your son or daughter has dropped out of Junior College. We appreciate your cooperation in the past and request that you tear off the attached postage-free postcard, complete it, and drop it in the mail as soon as possible. Thank you.

Very truly yours,

Phillip Sidwell

APPENDIX E (continued)

TELEPHONE INQUIRY

Name of Student _____

☐ Is he (she) attending another college?

Name of College _____

☐ Pursuing another type of post-high school training program (e.g. apprenticeship, business college, etc.)?

Type of training _____

Place of training _____

☐ Working full-time ☐ days ☐ nights☐ Working part-time ☐ days ☐ nightsJob is located ☐ in ☐ away from Grand Rapids area☐ Not employed☐ Housewife full-time ☐ in ☐ away from Grand Rapids area☐ In the military service☐ Other (specify) _____

APPENDIX F
TELEPHONE STATEMENT

This is Mrs. Gray, of the Grand Rapids Junior College, calling. A few weeks ago I called you, or your parents received a postcard questionnaire. This was part of the research project Mr. Sidwell is conducting in cooperation with Grand Rapids Junior College. We are interested in learning former Grand Rapids Junior College students' opinions about a number of aspects of the college.

This research project covers a sample of the freshmen who enrolled in September, 1959. We believe that your ideas and opinions are important, and we are anxious to discuss them with you. Would it be possible for Mr. Sidwell to interview you personally? It will not take more than one-half hour of your time. Mr. Sidwell could arrange to come to your home at a time convenient to you either during the day or in the evening. When would the best time be? We appreciate your cooperation. Thank you.

APPENDIX G

LIST OF VARIABLES STUDIED

I. High School Preparation

- A. City high school attended
- B. Curriculum completed in high school
- C. Vocational choice following completion of education
- D. Expressed educational plans for the future as of Spring, 1959
- E. High school decile rank in class

II. Family Influences

- A. Number of siblings from pre-school age through the twelfth grade
- B. Parents' educational plans for the student as of Spring, 1959
- C. Parents' plans for financially aiding student's education beyond high school
- D. Formal education attained by father, by mother
- E. Whether older siblings attended or are now attending college

III. Grand Rapids Junior College Academic Information

- A. Grand Rapids Junior College placement test scores
- B. Grand Rapids Junior College first semester grade point average and first year grade point average
- C. Curriculum originally enrolled in September, 1959
- D. Enrollment in one or more of the following courses: English 01, Math. 4, Math. 5, Developmental Reading
- E. Number of hours spent per week in outside paid employment
- F. Number of hours spent per week in college co-curricular activities

IV. Attitudes Toward Grand Rapids Junior College

- A. Reasons for enrolling in Grand Rapids Junior College
- B. Importance of completing program at Grand Rapids Junior College
- C. Adequacy of curriculum student enrolled in
- D. Quality of instruction received
- E. Ease of discussing problems and interests with instructors
- F. Adequacy of co-curricular program
- G. Social relationships with other Grand Rapids Junior College students
- H. Feelings about academic performance at Grand Rapids Junior College
- I. Reasons for withdrawing from Grand Rapids Junior College
- J. Future educational plans of the withdrawal students

V. Level of Aspiration

- A. What student expected to obtain through post-high school education
- B. Employment expectations immediately after completing either a transfer or terminal program
- C. Employment expectations fifteen years after completing college
- D. Changes of vocational goal, if any

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