

AN ABSTRACT OF THE THESIS OF

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Title: A STUDY OF DROPOUT PROPENSITY OF SELECTED COMMUNITY  
COLLEGE STUDENTS

Abstract approved: Redacted for Privacy  
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The purpose of this study was to determine if there were common factors influencing student decisions to terminate course work at the College of San Mateo, San Mateo, California.

The following six null hypotheses were tested:

1. There will be no significant difference in responses among those enrolled in transfer programs and those enrolled in career (occupational-oriented) programs.
2. There will be no significant difference in responses among those enrolled in transfer programs and those who are undecided as to major.
3. There will be no significant difference in responses among those enrolled in transfer programs and the composite group.
4. There will be no significant difference in responses among those enrolled in career programs and those who

are undecided as to major.

5. There will be no significant difference in responses among those enrolled in career programs and the composite group.
6. There will be no significant difference in responses among those who are undecided as to major and the composite group.

Further questions considered included:

1. What assistance should the college provide to help students make a more realistic career choice?
2. How should the college better meet student occupational and social needs?
3. What is the student's opinion of his or her program of study?
4. What is the student's opinion of selected characteristics of the college: curricula, instruction, and student personnel services, including counseling?

This was not subjected to statistical treatment because of limited parameters of this study, including time, facilities, personnel, and economic resources. While these data are subjective, they represent a wealth of information needed by community college decision makers.

### Procedures

The data for this study were obtained through the use of an exit and a follow-up interview. One hundred and eight students were given an exit interview by the investigator; 54 of them were given a follow-up interview. The data were statistically analyzed using the CHI-square test.

## Conclusions

The findings of this study suggest the following conclusions:

1. Major reasons for leaving were: full-time employment, health, finances, and personal problems.
2. There were no significant differences in responses:
  - a. Among those enrolled in transfer programs and those enrolled in career (occupational-oriented) programs.
  - b. Among those enrolled in transfer programs and those who are undecided as to major.
  - c. Among those enrolled in transfer programs and the composite group.
  - d. Among those enrolled in career programs and those who are undecided as to major.
  - e. Among those enrolled in career programs and the composite group.
  - f. Among those who are undecided as to major and the composite group.
3. Lack of "identity" and failure to seek help in making decisions are underlying causes of student attrition.
4. Lack of personal attention by the staff is a contributing factor to student attrition.
5. Insufficient information regarding various program options was an underlying reason for student attrition.
6. Stated reasons for leaving the community college are not necessarily the true or "real" reasons.

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A Study of Dropout Propensity of Selected  
Community College Students

by

H. Sanford Gum, Jr.

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# A STUDY OF DROPOUT PROPENSITY OF SELECTED COMMUNITY COLLEGE STUDENTS

## CHAPTER I. INTRODUCTION

### Prefatory Remarks

One of the most dramatic developments in higher education has been the phenomenal growth of the two-year, public community college. Following its modest beginning in 1902 at Joliet, Illinois, (Eels, 1931), the community college movement has emerged as an important contributor to the educational process. Through its broad offerings and open door policy, the community college represents an alternative to the traditional model of American higher education. (Cross, 1968) Within the past decade the number of community colleges has doubled, with a present enrollment of 2,000,000 full- and part-time students.

The community college is a uniquely American phenomenon, with the potential for fulfilling a wide range of functions in our society. Blocker (1965) maintained that these two-year colleges may be the most significant development in American education in the past half century. In most states, the public community colleges are required by law to admit all high school graduates and interested adults. The California community colleges have historically admitted almost anyone who applied, an "open door" policy (Clark, 1960) that obviously calls for diversity of educational offerings.

With no real restrictions on admission, the community colleges

have observed a high percentage of student drop out, which might warrant a change of metaphor from "open door" to revolving door!" Trent and Medsker (1968) noted that 49 percent of entering students left college before their second year: 17 percent withdrew during the first year, and an additional 32 percent failed to return after that first year. In an exhaustive review of the literature, Summerskill (1962) summarized that reported dropout rates ranged from 12 to 82 percent. Earlier, Iffert (1957) pointed out that research on college dropouts had a history of at least forty years, and that the attrition rate had not changed appreciably during that period.

In a report published by the Carnegie Commission on Higher Education, the role of the community college was discussed. This report (1971) gave generalized data based upon statistics and available attrition studies, and commented:

Six out of every ten students enrolling this fall will fail to get the ultimate degree to which they aspire, an overall dropout rate from higher education of about 60 percent. Most of the dropouts leave without formal recognition for their efforts, and many must have a sense of disappointment and even resentment. (p. 9)

Knoell (1966) suggests that many who enter intending to transfer do not do so. Only about one-third of those entering public community colleges complete the two-year program (Medsker, 1960), and in technical education, dropout rates as high as 40 to 50 percent are reported. (Seitz, 1968) There appears to be no significant difference in the dropout rate of transfer majors and those undecided (Clinkscales, 1971), and both are exceedingly high.

In an extensive review of 61 different studies relating to the

college dropout problem, Marsh (1966) attempted to establish or identify reasons for dropping out:

One can no longer afford to dismiss the dropout as merely lacking in intelligence, but must recognize his problem as one of great complexity. It should be recognized that adequate solutions will come only as a result of tedious and long-term research as well as with the development of new and more efficient research techniques. (p. 476)

### Statement of the Problem

The College of San Mateo, from which the sampling of the present study was made, is celebrating its fiftieth year, having been established in 1922 as one of the early California community colleges. Many programs and traditions have been developed over these years and, as would be expected, some of these programs have met the needs of some members of the community. However, the college has also experienced many problems, one of the most serious of which is the dropout student. This phenomenon at the College of San Mateo is the basis of this study.

Cross (1968) has written:

While studies of some subgroups may be conducted by national, regional, or state research centers, much greater emphasis needs to be placed on research at the local level. Careful attention to what is already known about junior college students will result in improved programs to meet their needs. (p. 52)

The findings of Demos' study (1968) suggested that counselors and administrators should be careful in assigning reasons for college dropouts. Demos also recommended that college and university personnel be encouraged to conduct research relative to their own students' reasons for withdrawal, and, more important, "to help determine what steps the

college itself can take to ameliorate the potential losses in human resources that accrue from many of these withdrawals" (p. 684).

In order to deal more realistically with this problem of attrition in community colleges, it is important to identify the real reasons why students withdraw. (Demos, 1968)

The present study attempts to do just that. It suggests that possible preventive action could be inaugurated by the school as a result of the findings of exit interviews with a sampling of students as part of the official withdrawal procedure.

Until recently, no formal study of dropout students had been conducted by the San Mateo Community College District. In 1968, the College of San Mateo was one of 22 community colleges in Northern California (The NORCAL Group) involved in a study to identify and describe characteristics associated with attrition of first-time, full-time community college students. As a result of this study, an action research design involving an individualized instructional program was undertaken by the college as part of the third phase of the NORCAL continuing research. (Wenrich, 1969)

Since that time, a study was conducted at Canada College, a sister institution in the San Mateo District, of all former students. (McKeown, 1972) Some questions posed were:

1. Is it characteristic of the community colleges to lose a high percentage of students?
2. What happens to these students?
3. Are these students dissatisfied with the occupational curricular offerings?

4. Have they been given adequate counseling and guidance services?

#### Purpose of the Study

The purpose of this study was to determine if there were common factors influencing student decisions to terminate course work at the College of San Mateo.

Information was compiled by personal interviews and questionnaires from a sampling of students in order to determine the major reasons for leaving.

The following six null hypotheses were tested:

1. There will be no significant difference in responses among those enrolled in transfer programs and those enrolled in career (occupational-oriented) programs.
2. There will be no significant difference in responses among those enrolled in transfer programs and those who are undecided as to major.
3. There will be no significant difference in responses among those enrolled in transfer programs and the composite group.
4. There will be no significant difference in responses among those enrolled in career programs and those who are undecided as to major.
5. There will be no significant difference in responses among those enrolled in career programs and the composite group.

6. There will be no significant difference in responses among those who are undecided as to major and the composite group.

As a result of the personal interviews, additional information was collected, including:

1. What assistance the college could provide to help students make a more realistic career choice.
2. How the college could better meet their occupational and social needs.
3. Student's evaluation of preparation for work or further study.
4. Student's evaluation of selected characteristics of the college: curricula, instruction, and student personnel services, including counseling.

This was not subjected to statistical treatment because of limited parameters of this study, including time, facilities, personnel, and economic resources. While these data are subjective, they represent a wealth of information needed by community college decision makers.

#### Basic Assumptions

1. Community colleges offer educational opportunities for students with a wide range of interests, abilities, and past achievements and enable them to move toward goals which they might not reach without post-high school education.
2. California (the leading state in number of public community

colleges as well as in number of students enrolled) is dedicated to the proposition that all high school graduates or students over 18 years old should be provided the opportunity of higher education. While this assumption is attested to by many, there is confusion about the role of the community college. Cohen and Quimby (1970) write:

The two year college is variously viewed as a stepping stone to higher education, a technical training institution, a community service agency, a "comprehensive" institution, and a sorting agency for a community's youth. The absence of comprehensive conceptions of the institutional and educational functioning of two-year colleges makes for inadequate and indistinct analyses of their roles and practices, and consequently frustrates efforts to develop a "common language" for researchers and practitioner to deal with their educational problems. (p. 1)

3. The problem of dropouts should receive high priority in research.
4. The author of this study believes that the reasons reported by the students withdrawing are, in many cases, not necessarily the true or "real" reasons for their leaving the institution. Beyond the surface (reported) problem is an underlying or root cause.
5. In order for the College of San Mateo to provide curricula well suited to its students, the college must collect, analyze, and use information about its dropouts.
6. What happens to students while in college, and even after attrition, graduation, and/or transfer, must be of concern to those involved in the educational process.
7. The success of the institution can best be measured by the success of its students.

#### Definition of Terms

Dropout: Student who decides not to complete a course of study,

stops attending classes, and does not complete the formal leave of absence (checkout) procedures.

Follow-Up: Contact made with a student after the exit interview.

Withdrawal: See Leave (of Absence).

Leave (of Absence): Any student who leaves college at any time during a semester, having completed the formal withdrawal (checkout) procedures.

Regular Student: Student completing the enrollment procedures outlined on the application for admission, enrolling in nine or more units, and assigned to a counselor.

Special Student: Student taking one or two classes, totaling no more than eight units, following special enrollment procedures, and not assigned a regular counselor.

Transfer Major: Student who intends to transfer to a four-year institution. The program for this student consists of the lower division requirements for that major at that particular college or university.

Career Major: Student who specializes in a program in an occupational field, planning to prepare for gainful employment.

Undecided Major: Student who has not declared a specific major, either in transferring to a four-year institution or specializing in an occupational field.

Composite Group: The total sampling, including transfer, career, and undecided students.

Certificate Program: Program requiring two years or less to complete, with concentration on those courses considered essential for employment in career occupations.

Associate Degree: The Associate in Arts Degree is awarded upon satisfactory completion of an organized program, usually two years of full-time study in a career major.

Registered Only: Student who registered for the fall semester (1972) but never attended classes.

### Limitations of the Study

The sampling for this study was taken during the fall semester, 1972, at selected periods after the fourth week and prior to the sixteenth week. Students interviewed were day students only and those who applied for a formal "Leave of Absence" according to established check-out procedure. Most dropout studies are limited because the results are based on written questionnaires (Wilson, 1971), and dropouts usually respond poorly to follow-up studies. (McKeown, 1972) The basis of the present study, therefore, was predicated upon the use of the personal interview. The College of San Mateo has placed more importance upon knowing what exists (descriptive), rather than upon the differences between groups, although this was also studied. A copy of the interview questions can be found in Appendix A. A total of 110 students were interviewed by one counselor, the author of this study.

### Methodology and Procedure

This study attempted to keep in close contact with students who had taken a leave. It had been recommended (McKeown, 1972, and Brown, 1972) that an exit or terminal interview be given in an attempt to determine the reason(s) for leaving, and perhaps to assist in finding

employment. Most schools do not have such a policy or, at best, little information is derived from sporadic interviews and the minimal follow-up.

Procedure:

1. A formal procedure was developed, including:
  - a. The format of the exit interview to be used by the researcher.
  - b. Information about leave (withdrawal) procedure was disseminated throughout the campus.
  - c. Students were made part of the "jury" in an effort to construct the interviews in terms understandable to the student population.
2. A sampling of students taking a leave of absence during the fall semester, 1972, was routed to the investigator for an exit interview.
3. Each student was given a 10-15 minute interview.
4. Follow-up interviews were given to as many of these students as possible within three months of the exit interview.
5. Assistance was given by members of the Statistics Department at Oregon State University, as well as the staff at the College of San Mateo.
6. Comparisons were made between the information collected from the exit interview and that of the follow-up interview.
7. Responses about the characteristics of the college as

well as motivational factors and students' values were compiled.

8. The data were analyzed, information recorded, conclusions drawn, recommendations proposed, and implications formulated for student personnel services.

### Summary

The community college movement has been acknowledged as the most significant development in American higher education in the past fifty years. California, a leader in this movement, as well as most other states, holds to the "open door" admission policy. The College of San Mateo, from which the sampling of this study was made, has been established since 1922. With all of its programs endeavoring to meet the needs of the community, the college has experienced a perennial problem plaguing most community colleges, the dropout student.

The purpose of this study was to determine factors having a tendency to influence students' decisions leading to departure from the College of San Mateo. A sampling of students taking a formal leave of absence during the fall semester, 1972, was interviewed by the investigator, the author of this study. This exit interview was followed up within three months. Comparisons were made between students:

1. Enrolled in a transfer program,
2. Enrolled in a career (two-year) program, and
3. Who were undecided as to a major.

The school's primary concern was to find out at the exit interview or soon thereafter what could be done to reverse the attrition trend.

This study was conducted under the sponsorship and assistance of the College of San Mateo's Student Personnel Services.

## CHAPTER II. REVIEW OF RELATED LITERATURE

### The Dropout Phenomenon: Introduction

This review of literature is primarily concerned with factors pertaining to the propensity of community college students to drop out, withdraw, or take a leave of absence, i.e., to interrupt a course of study. While none of the studies reviewed was identical to the one in this thesis, many factors and procedures were similar. It is hoped that this study, which represents many hours of diligent effort, will be utilized and not merely presented as "inert ideas!" Alfred North Whitehead, (1929, p. 2) ". . . that is to say, ideas that are merely received into the mind without being utilized, or tested, or thrown into fresh combinations."

### The Need for Dropout and Follow-Up Studies

The study of college attrition, its causes and ramifications, cannot be conducted in isolation, but must be related to the entire educational structure.

The word "dropout" has a great variety of meanings and connotations. It is used synonymously with "non-persistor." Others describe this phenomenon as: "stopout" (Kester, 1971b), "temporary withdrawal" (Bossen, 1968), or "transient" (Heist, 1968).

Traditionally, the practice of dropping out has been frowned upon.

To the colleges, dropping out appears equivalent to a kind of death, if only an intellectual one. Dropouts

are referred to in academic circles as "casualties" or "non-survivors." The dropout rate is called the "mortality" rate. Under these conditions it is natural for college authorities to discourage dropping out, even though the student may benefit by leaving school for a time. (Reik, 1962, p. 442)

This negative attitude has caused undue pressure upon students as well as determined readmission policies to colleges and universities.

(Pervin, Reik, and Dalrymple, 1966)

"Dropout," a word typically applied alike to students who fail to complete a semester or who fail to register for the next series of courses in a particular curriculum is often coupled with the word "problem," to form a term which suggests something that must be "solved." Depending on one's view, a student who drops out has either failed to "achieve his potential" (play the game according to the rules) or has been let down by schools which have neglected to provide an "experience appropriate to his needs." In either case, the "problem" exists. (Cohen, 1969b, p. 130)

Although the term "college dropout" has become a bad word in the popular press and the American home ". . . the possibilities of both loss and benefit should be considered" (Ford and Urban, 1966, p. 83). Perhaps the term "dropout," used so extensively with a negative connotation is not really detrimental at all. According to Cohen and Brawer (1970), "The dropout may be exhibiting strengths not possessed by his fellow students" (p. 20).

Knoell (1960) reported few follow-up studies on retention and withdrawal by colleges engaged in institutional research. The same fact is borne out in Summerskill's review (1962) of dropouts and in Pervin's study (1966). In a more recent review by Knoell, the need for more follow-up studies of dropouts was suggested:

. . . in the junior colleges, where attrition is exceedingly high after only one year and where a large proportion of the students in transfer programs do not

enter four-year institutions. One very important aspect of such an evaluative approach is an assessment of the long-term effects of failure among college students. (1966, p. 70)

Limited data are available to illustrate the relationship of student performance to non-scholastic variables, such as motivation, values, and interests. In-depth investigations of these factors have been conducted at several four-year institutions as reported by Newman (1971), Carnegie (1971), Astin (1971), Demos (1968), Panos (1968), and Pervin, Reik, and Dalrymple (1966). McClure's (1972) investigation of prediction studies that include nonintellectual factors supports this. Little, however, has been reported from community colleges.

Follow-up studies designed to identify causes for dropping out can be used as a basis for developing special programs and other preventive procedures. Follow-up studies should be a continual process and have a high priority of institutional research. (Blocker et al, 1965) O'Connor's review of follow-up studies in community colleges (1965) pointed out that perhaps the reason for the lack of reduction in the number of dropouts was the sporadic study of the phenomenon. "A sustained analysis of the problem might well yield more effective solutions. Follow-up studies must include an analysis of dropouts" (p. 12).

While there is a rich source of literature dealing with the impact of four-year colleges and universities on student population and alumni (Feldman and Newcomb, 1969), there is only fragmentary information about the effect of community college schooling on students. Cohen and

Quimby (1970) revealed that:

There are no serious studies or measures of the impact of junior college schooling on the many dropouts or those who terminate their formal schooling after completing a two-year college program of study. Impact studies, both flat-line and longitudinal, are needed to reveal the strengths and weaknesses of junior college schooling. (p. 1)

The authors recommended that studies be undertaken to appraise the characteristics of community college students recruited to occupation-centered (career) curricula. "The field is simply ignorant about the characteristics of students recruited to occupation-oriented programs that could give meaning to both the students and the program" (p. 1).

Results of investigations in the early 1960's suggest that there needs to be a reassessment of the nature of the dropout "problem."

Medsker and Tillery's profile of two-year colleges (1971) suggests that the colleges themselves are failing to offer programs and services of a nature and in a manner that holds students. "This problem should be one of the greatest priorities for research and deliberation on the part of those individuals in state agencies responsible for the planning of community colleges" (p. 49).

There appears, however, to be wide diversity of opinion on what type of investigation would be helpful. Knoell (1966) began by calling for the need for longitudinal studies. Cohen and Brawer (1970) in their study of student characteristics expressed the need for basic research that seeks to isolate personality dimensions in order to identify the potential college dropout.

Well-planned follow-up studies should be an integral part of the institutional research program of every college. Roueche and Boggs

(1968) suggested that community colleges typically do not conduct indigenous studies. "While research, whether basic or applied, is becoming more prevalent, it is still not a hallmark of the institution" (p. 47). Thornton (1966) suggested that community colleges typically have been more concerned with former students who have been "successful" than those who have dropped out. A complete follow-up program is essential of all types of former students and what happens to them. Feedback is necessary from transfer students to evaluate admission procedures and academic preparation. Information, though difficult to obtain, is needed of employed students in order to promote improvements in training programs. Thornton revealed that "Few studies are reported of the success of vocationally trained graduates in finding employment in the area of their training and of their comparative success after placement" (p. 266).

This support for local research is off-set by the admonition of Cohen and Brawer (1970) and others. "Most dropout studies tend to be parochial" (p. 15). Some investigations, such as Trent and Medsker's broad-based study (1968), have studied populations from several kinds of schools throughout the nation. Astin (1972) lends support to this approach, suggesting that the research should be multi-institutional, longitudinal, and ". . . studies of the comparative effects of different types of colleges" (p. 2).

Thus, the need for dropout and follow-up studies is evident, along with the diversity of opinion as to direction, content, and design of such investigations.

### The Dropout Problem in Higher Education

The dropout problem faces educators throughout the nation. In an extensive review of dropouts from college, Summerskill (1962) reported: "There has been a loss and continues to be a loss of about half of the undergraduate students despite changes in student characteristics, programs offered, standards enforced, and services rendered" (p. 630). Other investigations (Trent and Medsker, 1968), (Medsker, 1960), (Marsh, 1966), and (Carnegie Commission on Higher Education, 1971) revealed similar dropout rates. In their publication, Less Time, More Options, the Carnegie Commission disclosed that "six out of every ten students enrolling this fall will fail to get the ultimate degree to which they aspire, an overall dropout rate from higher education of about 60 percent" (1971, p. 9). Pervin (1966) agrees with this trend. "The rising wave of college applicants during the past decade has inevitably brought with it mounting nation-wide interest in the 50 percent of the college students who drop out, especially those students with seemingly excellent potential" (p. 237). In another place, Pervin put it another way: "Only about 40 percent of the nation's students graduate at the date scheduled for the class of their matriculation" (p. 7).

In spite of such statistics, remarkably little is known about the effects of withdrawal upon the student or about his later performance in academic, vocational, and personal realms. Pervin continues: "While the phenomenon of the dropout per se has received a fair amount of research investigation, there have been extremely few follow-up studies" (p. 37). This fact is hardly mentioned in reviews by Knoell

(1966) and Summerskill (1962).

Attrition in other than leading private institutions in the country is acknowledged as being exceedingly high. The Newman report (1971) stated that only 15 to 25 percent of the students graduate from state colleges in four years and 35 to 45 percent from large state universities. The report continues by bemoaning the fact that colleges and universities tend to prepare students to "fit in" comfortably with a "homogenizing society" rather than offering alternative careers and roles, including ones that challenge and change society. "Contemporary activism on campuses has won some changes by their demands in the past decade, which has contributed to many of the innovations in higher education" (p. 3). Newman concludes this introduction by warning that undue optimism is not warranted. "Resistance to change is prevalent in all facets of higher education, because it is an integral part of the larger social system" (p. 4).

Perhaps this report, coupled with the student unrest and demands for relevance in education during the past decade, discloses at least a partial reason for high student attrition. In his succinct treatise on pluralism and diversity in American higher education (1972), Schwebel relates that:

In their need to understand their own inequities, to appreciate the origins of their own alienation, to comprehend their lives in the system, students require the kind of openness and exposure of its ideology that systems are not prepared to give, and especially in the traditional institutions that cater to new entrants. (p. 90)

In order to effect change in their institutions and deal realistically with the problem of the dropout, colleges and universities of

higher education must collect meaningful data and must be committed to utilize that information in specific programs. In their chapter in the College Dropout and the Utilization of Talent, Ford and Urban (1966) presented this challenge:

One of the first things a university must do is to acquire some base rates of information about its own individual situation. It must arrange for a steady flow of data and research concerning the admission, academic performance, and related characteristics of its students. Careful study of both graduates and dropouts is essential. It is only by such feedback that a university can evaluate its efforts and discover those aspects of its operation which need to be improved. (p. 84)

This is clearly an admonition to all facets of higher education, including community colleges.

In his analysis of the ontogeny of the dropout problem, Kubie (1966) insisted that in order to differentiate the student with high dropout potential and the student with high persistence potential, intensive comparative studies must be undertaken of dropouts and non-dropouts alike. Cohen and Brawer (1970) also make the admonition, "There is a definite lack of experimentation with action programs designed specifically to reduce attrition" (p. 19).

A wide difference of opinion exists among investigators about reasons for student withdrawal. Cowhig (1963) reported dropout categories of why students leave college in a study comparing a relatively large group of both male and female students (Table 1). Medsker (1960) had similar findings in his review of 20 studies involving nearly 10,000 community college students (Table 2). In the Princeton Study, Pervin (1966) revealed the usual reasons. Almost no one claimed a lack of ability. The problems of poor motivation and immaturity were

Table 1. Reasons for Leaving College for 1,162 Persons  
Sixteen to Twenty-Four Years of Age Who Attended  
but Did Not Graduate from College: United States,  
October, 1959.

Reasons Not Now in College	Total	Male	Female
Number (in thousands)	1,162	507	655
Percent	100.0	100.0	100.0
Lost interest	15.0	15.4	14.6
Poor grades	2.7	5.5	0.5
Lacked money	18.3	27.6	11.1
Took job	20.9	21.5	20.5
Military service	4.1	8.9	0.3
Marriage	22.8	6.9	35.1
Other	15.9	13.8	17.6
Not reported	0.3	0.4	0.3

Table 2. Reasons Stated for Withdrawing from Junior College  
Reported by Approximately Ten Thousand Students  
Enrolled in Twenty Two-Year Colleges between  
1949 and 1957.

Reasons Stated for Withdrawal	No. of Students	Percent
Full-time employment	2,734	28
Personal and health	1,554	16
Moved or transferred	1,084	11
Nonattendance	1,013	10
Academic or faculty action	860	9
To enter Armed Forces	832	8
Not interested in school or dissatisfied	763	8
Financial	549	6
Marriage	264	3
Educational goals completed	<u>55</u>	<u>1</u>
Total	9,898	100

noted as consistently contributing to withdrawal. Apparently academic ability alone does not play a significant part in determining who drops out of Princeton. It cannot be used effectively in attempts at prediction and this has become increasingly true with recent classes.

Astin (1964) confirmed the findings concerning lack of goals and uncertainty as to major and career choice. "Uncertainty about what to study is the most frequent reason talented students give for dropping out of college" (p. 40). Earlier, Thistlewaite (1960) found that many students who drop out of a field did so because their career expectations proved incompatible with reality.

Many authorities believe that reasons listed by students for attrition are really secondary, and are results rather than causes. (Wilson, 1971) Even if some reasons given by students are legitimate, they could probably be overcome if the student really wanted to continue. For example, Dalrymple (1967), who worked with students at Princeton and the University of Illinois, disclosed that students usually do not have one specific reason for dropping out of college. An analysis of college dropouts by Demos (1968) at California State University at Long Beach, California, revealed the importance of identifying the "real" reasons why students withdraw from colleges and universities. "One very important aspect of these studies indicates that the reasons given by the withdrawing students are not, many times, the true reasons as seen by trained counselors" (p. 681). In his study, trained counselors investigated several hundred dropouts and compared the results of the students' responses to the reason for withdrawing with that of the counselors' (Table 3). Bossen (1968) is supportive of this assay

Table 3. Reasons for Withdrawal (Given by Student and by Counselor).

	Male				Female			
	Stated Reason		Counselor's Interpretation		Stated Reason		Counselor's Interpretation	
	N	%	N	%	N	%	N	%
1. a. Doctor's orders	6	4	3	1	18	17	17	15
b. Personal decision (illness)	12	7	12	6	8	8	8	7
2. a. Need job (financial problems)	39	24	28	14	22	21	15	13
b. Additional job	4	2	1	.5	2	2	1	.5
c. Work conflict	9	6	7	4	2	2	1	.5
d. Temporary job	6	4	5	3	1	1	1	1
e. New permanent job	8	5	5	3	6	6	3	3
3. a. Military service	15	9	8	4	0	0	0	0
4. a. Illness in family	11	7	12	6	7	7	7	6
b. Death in family	1	1	1	.5	0	0	0	0
5. a. Getting married	0	0	1	.5	7	7	6	5
b. Additions to family	3	2	3	1	0	0	3	3
c. Marital conflicts	5	3	7	4	1	.5	4	4
d. Parental conflicts	2	1	3	1	2	2	4	4

Table 3. Continued.

	Male				Female			
	Stated Reason		Counselor's Interpretation		Stated Reason		Counselor's Interpretation	
	N	%	N	%	N	%	N	%
6. a. Family moving	5	3	5	3	6	6	6	5
b. Job transfer	1	1	1	.5	0	0	1	1
c. Leaving area	4	2	2	1	0	0	0	0
d. Transfer to another college	2	1	3	1	2	2	3	3
e. Transportation problem	1	1	0	0	2	2	0	0
7. a. Work too difficult	7	4	21	11	1	.5	2	2
b. Lack of motivation	8	5	24	12	2	2	9	8
c. Uncertainty as to major	4	2	19	10	3	3	5	4
d. Poor grades	2	1	4	2	3	3	4	4
8. a. Personal, emotional, or psychological problems	<u>8</u>	<u>5</u>	<u>21</u>	<u>11</u>	<u>8</u>	<u>8</u>	<u>12</u>	<u>11</u>
Total	153	100	196	100	103	100	112	100

in a follow-up study conducted of community college withdrawal students. The findings indicated that, with several exceptions, more than one reason was involved in the decision by the student to leave college. For a majority of the withdrawals, personal, social, and academic categories were all represented in their reasons for leaving.

The large majority of the studies reviewed by Wilson (1971) revealed that employment is the most important reason given by students for dropping out of college. According to Cowhig (1963), "took a job" or "full-time employment" appears to be difficult to interpret. Economic reasons are really secondary. Montgomery and Hills (1966) state: "Studies are inconclusive as to whether financial need causes many students to leave college" (p. 248). Probably of greater significance is lack of motivation or preference for some other activity. In an early study, Matson (unpublished doctoral dissertation, 1955) saw no significant difference between freshmen who withdrew and those who continued. She concluded that the major reasons for withdrawing are the dropout's lack of identification and feeling of not belonging.

A major limitation in most attrition studies is the tendency to lump together into the dropout category all students who leave college before obtaining a baccalaureate degree. This procedure, as observed by Knoell (1966), can cancel out factors that would otherwise differentiate the student who becomes a dropout because of academic failure from the one who decides to forego his education temporarily or to transfer to another institution.

Another limitation of these studies was the fact that results can be misleading depending on many factors that would include the

type of survey and the response. (Wilson, 1971, and McKeown, 1972) O'Connor (1965) commented that dropouts do not respond well to follow-up studies, and this tends to limit the value of these studies. Cohen and Quimby (1970) reported that replies from community college dropouts seldom reach 30 percent. McKeown (1972) in his "Follow Through Study" warned:

From the point of view of interpreting the results of the survey, this response rate . . . (29.3 percent) . . . is certainly low enough for us to be very hesitant to draw any inferences about the sample as a whole, especially without knowing if there are any systematic differences between those former students who returned the questionnaire and those who did not. (p. 3)

Two additional dimensions in the attrition "problem" must be considered.

First is the need to compare relative attrition rates of males and females. Summerskill (1962) found that the dropout rate for males and females was approximately equal, despite the fact that fewer women enter college. However, Demos (1968) indicated in his study that significantly more males than females left school even though a ratio of seven males to five females existed at the college when the study was undertaken. On the other hand, in Astin's extremely comprehensive investigation of predicting academic performance with selective data for 2,300 American colleges (1971), it was stated:

One finding that should be underscored is that the dropout rate was higher among women than men at every level of freshman G.P.A. Women were more likely to drop out of college than men, even though they tended to get higher grades during the freshman year. Thus, the "talent loss" resulting from this interrupted or terminated education is consistently greater among the women. (p. 16)

Second is the prediction of success, or the need to develop ways

to identify potential dropouts. In an unpublished doctoral dissertation (1972), McClure conducted an extensive review of literature on prediction of success in community colleges. Results of various tests, biographic and nonintellective data, and other types of evaluations were presented. His results were as follows:

1. High school grade point average and high school rank correlated significantly with improved prediction of junior college success.
2. Nonintellective factors showed mixed findings.
3. General Aptitude Test Battery (GATB) proved to be stronger than American College Test (ACT) and School and College Ability Test (SCAT) in predictive ability. GATB has had a long history of development and research involving the validation of its use for vocational counseling. (p. 58)

Astin (1971) supports the predictive value of grade point average (GPA). He states that it is clear that college GPA is related to dropping out, and that the same characteristics that predict college GPA should also predict dropping out. This study based on data from the Cooperative Institutional Research Program of the American Council on Education, a continuing research program, revealed that the percentage of dropouts consistently increased as the average grade in high school decreased, ". . . though this increase was not nearly so pronounced as it was in the case of college GPA" (p. 17). This relationship between dropping out and high school grades--the best predictor of freshman GPA--is shown in Table 4. Astin continues: "Clearly, the relationship between high school grades and dropping out cannot be accounted for solely by the relationship between high school grades and college grades" (p. 17). In his summary (p. 20), Astin says: "High school grades carry considerably more weight in predicting college

grades than aptitude test scores do."

Table 4. Relationship between High School Grades and Dropping Out of College.

Average Grade in High School	Number of Students		% of Students Not Returning for the Sophomore Year	
	Men	Women	Men	Women
A or A+	1,262	1,686	7	12
A-	2,035	2,732	8	14
B+	3,324	3,893	11	18
B	4,247	4,174	17	20
B-	3,121	1,982	20	25
C+	3,094	1,644	26	28
C	2,312	927	33	36
D	129	19	47	47

Another facet in the phenomenon of the dropout was brought to light by Pervin (1966). The data from the Princeton Study suggest that there may have been a change in the nature of dropouts. "At Princeton there has been a decrease in students dropping out for academic reasons and an increase in students dropping out for general reasons" (p. 59). From the data of this study, it was impossible to determine which of a number of possible factors was most influential in this change.

Pervin, Reik, and Dalrymple (1966) pointed out that pioneering

follow-up studies of the "fate" of dropouts have led to the discovery that for many it is not permanent, and that leaving college for a period of time may be useful to the individual and society (Table 5).

Table 5. Later Success of College Dropouts.  
Immediate and Long-Term Effects of Withdrawal.  
(in percent)

	Immediate				Long-Term			
	Positive	Negative	Mixed	None	Positive	Negative	Mixed	None
1940	.15	.30	.07	.48	.10	.20	.04	.66
1951	.32	.44	.07	.17	.36	.25	.11	.27
1960	.35	.37	.15	.13	.60	.17	.08	.15

The authors of this report also quote R. Sargent Shriver, former Director of the Peace Corps:

If the college sophomore wants to drop out of school, let him. Let the bored or confused or the burned-out undergraduate have a short, meaningful interlude--a sojourn in reality--for a year or two, so that he can come back revitalized, committed, concerned enough to finish both college and graduate work. (p. 18)

This review indicated that the attrition in higher education nationally was about 50 percent. While there has been research of dropouts per se, little has been done in follow-up studies. Careful study of graduates and dropouts is needed for evaluation of individual institutions in order to effect necessary improvements. Comparative studies and action programs are needed to reduce attrition. Studies showed that reasons for withdrawing are not always the true reasons and with few exceptions, more than one reason was involved in

the decision to leave. The most common reasons given were employment, finances, and lack of motivations, with marriage ranking high in four-year institutions. Other factors included male vs. female, GPA, and type of survey. Several studies pointed out a trend in fewer students leaving for academic reasons and an increase for personal reasons. It was suggested that possibly for many dropping out was temporary and that this "stopping out" period was not necessarily bad.

### The Dropout Problem in Community Colleges

The foregoing review of the dropout problem in higher education revealed total agreement on the need for research and follow-up studies. While the major emphasis was on four-year institutions, some emphasis was given to the community college. This section presents salient features of this phenomenon in the community college.

Research on the community college is a relatively new phenomenon as reported in the current literature. (Cross, 1968; Cohen and Brawer, 1970) Pace (1962) pointed out that published research on the community college lags considerably behind the four-year institutions. One of the most serious limitations of the relatively few studies that include community college populations is that these students are grouped with students at different levels of education and/or in different types of schools. (Cohen and Brawer, 1970) Among these are the longitudinal scope study as reported by Tillery (1964), Project Talent (Cross, 1968), and the impressive and comprehensive study of 10,000 high school graduates by Trent and Medsker (1968).

A summary of some of the "knowns and unknowns" of community

college students as reported by Cohen and (1970) are as follows:

1. Community college students in national, regional, or statewide samples achieve lower mean scores on academic ability tests than comparably selected students at four-year institutions.
2. Little is actually known about patterns of special abilities among community college students.
3. More information is needed about community college students' home environments, parental encouragement, financial standing, and related matters.
4. Little is known about the vocationally oriented students, the dropouts, or older students who do not transfer to four-year schools.
5. Community college students have more practical orientations to life and to college than their four-year college or university peers.
6. Community college students are less intellectually disposed, score lower on measures of autonomy and non-authoritarianism, appear more cautious and controlled, are less likely to be adventurous and flexible, and are less sure of themselves.

Research on personality characteristics of community college students is meager and more information is needed regarding their values, feelings about themselves, and interpersonal relations.

The community college is today in the forefront of the thrust toward higher education. The philosophy is that each individual,

regardless of economic or social status, should be provided the opportunity to develop to his and society's ultimate benefit. With the increasing necessity for post-secondary schooling for an ever-growing portion of the population, the community college bears much of the added responsibility. (Cohen, 1969) The extent to which the community colleges have absorbed the increasingly large segment of students enrolled in higher education was reported by Tickton (1968):

In 1920	1.4% of all college students	
1940	10.0% of all college students	
1965	15.2% of all college students	
est. 1975	16.9% of all college students	
est. 1980	22.0% of all college students	(p. 18)

The National Science Foundation (1967) revealed that, considering lower division enrollments only, the community colleges already have more than 30 percent of these students.

With the community college growing at an unprecedented rate in numbers of schools and numbers of students enrolled, it is still seeking independence, recognition, and awareness of its role in higher education. Cohen and Brawer (1970) believe its very identity is questioned. Confusion about its role has been pointed out by Cohen and Quimby (1970). There appears to be a marked lack of unanimity among professionals in community colleges, who do not hold consistent or comprehensive concepts about its function. It is seen by some as the gateway to universal high education. (McGrath, 1966) It is seen by others as a stumbling block. (Cohen and Quimby, 1970)

Despite the "uniqueness" of the two-year colleges, Medsker (1969) believes it lacks identity and presents a pressing need to deal with its "identity crisis." In his address to the 1970 annual convention

of the American Association of Community and Junior Colleges, Executive Director Edmund J. Gleazer, Jr., reflected this uncertainty about institutional identity of the two-year colleges. He suggested the possibility of dropping the word "college" and re-identifying these institutions as "community centers for educational development." (Gleazer, 1970) This "identity crisis" in the community college is reflected in the attitude of the students in attendance. (Cohen, 1969; Cross, 1968; Combs, 1971) According to O'Connell (1968), the community colleges have such a high dropout rate they become, more often than not, one-year colleges. In her review of studies of dropouts, Knoell (1966) relates that "One of the most serious gaps in our knowledge of dropouts as a potential loss of talent is in the area of the junior college" (p. 79).

Cross's description of the community college student (1968) indicates a consistency of findings in spite of sampling biases. As to goals and aspirations, Cross reports scanty research in personality characteristics of community college students. More information about students' values, their feelings about themselves, and their relationship with others is needed.

Given the overall research picture, one can hypothesize that the junior college student may frequently be one who has stopped trying in the academic situation; motivation and interest may be depressed because of the relative lack of successful school experiences in the past. We need to know more about the areas in which the junior college student feels himself especially competent. (Cross, 1968, p. 51-52)

Related research on attrition of community college students has revealed more than relationships of individual characteristics and academic environments. Cohen and Brawer (1970) suggested that

conceptually distinct college patterns were found to increase the propensity to withdraw. They reported high attrition rates were associated with:

1. Schools that encouraged high levels of student competition, limited opportunity for involvement with faculty, and offered few extracurricular activities to bring students together and
2. Colleges having relatively severe grading practices, faculties who were not concerned with individual students, and considerable freedom for students to select their courses. (p. 17)

The nature of student complaints about student-faculty relationships needs to be explored. Few programs aimed at combating the isolation of faculty and students exist. (Montgomery and Hills, 1969)

A review of the literature on the characteristics of community college students revealed no "common language" researchers have to deal with student problems. Thus, the absence of comprehensive conception of the educational functions of two-year colleges often frustrates researchers' efforts. (Cohen and Quimby, 1970)

Community college programs traditionally have been designed on the basis of the four-year institutions' desire to have students "screened" before transferring. Cohen (1969) points out that the community college should exist to serve its students and community and not as a sorting mechanism for the benefit of other colleges and universities. He believes that all distinctions between "transfer" and "terminal" programs should be broken down. "Tracking (placing students into transfer or non-transfer courses) is passe" (p. 7).

Most students come to community colleges seeking directions and relevance in education. They no longer view their college experience

as an abstraction outside the reality of their lives. (Cohen, 1969) In their comprehensive profile of the two-year colleges, Medsker and Tillery (1971) attribute high attrition to irrelevant instruction as well as to financial pressure and inadequate advisement. Earlier, Medsker (1960) explained that entering students in community colleges have definite short-term personal or vocational goals which are often satisfied in less than the usual two-year period.

Concomitant with the "open door" policy associated with community colleges is the possibility of negative effects. The penalties for students' dropping out are often severe. In many colleges, a dropout must submit justification for having broken the straight-line pattern of attendance. The difficulty of gaining re-admittance to college is well known.

Guardians, in the persons of admissions officers with responsibility for keeping out the unfit, man the gates at many two-year . . . schools. And woe to the prospective student who applies with marks on his transcript that indicate he withdrew before completing a course at some point in his school career. (Cohen, 1969, p. 131)

Although the nonselective admissions policy is a democratic ideal, there are personal losses as well as society's "loss of talent." The disappointment and emotional effects upon students with early departures from school have consequences of which we are only dimly aware.

The idea of a "second chance" is generally accepted by the community college. (Cohen, 1969; Blocker, 1965; Medsker, 1960) As a matter of fact, the two-year institutions pride themselves in enrolling students who have been rejected by four-year schools. Cohen (1969) disclosed that, "No junior colleges, however, have developed an organization

so flexible that a student can enter, leave, and return at times of his own choosing without penalty" (p. 131).

Community college institutional research needs considerable upgrading if it is to effect change. Cohen (1969) believes that methodology is an over-riding problem in community college research. Studies of community college students fall almost exclusively into the category of data-collection from existing records.

The investigator typically tabulates data obtained from college files or from questionnaires sent to undifferentiated numbers of students and presents his findings . . . Typically, population sampling is not undertaken, hypotheses are poorly drawn (if stated at all) and simple research designs are lacking. (Cohen, 1969, p. 104)

In spite of many efforts to collect information, reports on research are often not published. Much material that has been gathered about community college students has been reviewed and synthesized by ERIC Clearinghouse and the American Association of Community and Junior Colleges. However, it is estimated that many times that amount of research lies buried in local school administrative files (Cohen and Brawer, 1970). The need is great to find, summarize, and publish existing studies, and to report new findings.

The usual method of assessing the success of community colleges is in the transfer function and comparing grade point averages achieved before and after transfer. (Knoell, 1966) There is reason to believe that many who enter with the intention to transfer do not do so. Also, some students transfer to senior colleges before completing the two-year period. A sizable number of students complete two years in community college but do not choose to satisfy the graduation requirements.

(Medsker, 1960) "Neither our statistics nor our insights into the phenomenon of the junior college dropout is now adequate to the task of assessing this loss of talent" (Knoell, 1966, p. 70). Obviously, function of both placement and of follow-up are too important in their relation to all aspects of the overall program of the community college to be left to chance or to haphazard development. (Mohs, 1962)

An important function of the community college is in student personnel services, particularly in counseling and guidance. Counseling programs are useful in getting information to the student at the right time. Special programs need to be devised in assisting students prior to dropping out. (Blai, 1972) Students should be reached and counseled before they withdraw, but in many instances students do not withdraw formally. They simply become another statistic at the close of the college term. (Demos, 1968) This implies a need for developing ways to identify potential dropouts before they drop out, an idea supported by Wilson (1971), Kester (1971), and McKeown (1972).

In short, not enough is known about community college students at this time, particularly the dropouts. Who are they? Why do they leave? How many do so?

In reviewing the dropout problem in community colleges, little research was reported and it has been a relatively new activity. Some of the "knowns and unknowns" of community college students were revealed. It was noted that the community college has been absorbing increasing numbers enrolled in higher education. Despite its "uniqueness" the two-year colleges have had an "identity crisis," which has been reflected in student attendance. Little research has been done in personality

characteristics of these students. High attrition rates have been reported with regard to competition, grading practices, and poor student-faculty relationships. Negative effects have been associated with the "open door" policy. While community colleges pride themselves on being a "second chance" institution, greater flexibility should be made. Institutional research in community colleges needs considerable up-grading. It needs to be more than data-gathering, and merely lost in administrative files. Greater emphasis needs to be placed upon counseling and guidance. This should include getting information to students at the right time.

#### National Studies

This section includes related and supporting follow-up studies on a national basis having implications on this study.

Reporting on a study of nationwide scope conducted by the National Merit Scholarship Corporation, Panos and Astin (1968) found that students not completing college at the prescribed time:

1. Had relatively low grades in high school.
2. Did not plan to go on to graduate or professional work.
3. Came from relatively low socio-economic backgrounds.
4. Designated either American Indian or "other" backgrounds.
5. Were likely to have declared business, engineering, or secretarial work as their probable career.
6. Were likely to have been married when starting college.
7. Had automobiles and used them frequently.

They found less likelihood that students would withdraw from

school if:

1. Their relationship to peers was characterized by friendliness, cooperativeness, and independence.
2. They frequently participated in college activities.
3. The institution showed a high level of personal involvement with and concern for the individual student.
4. The school's administrative policies concerning student aggression were relatively permissive.

The above findings of Panos and Astin corroborated many of the reasons for attrition found by Matson (1955), Iffert (1964), Cowhig (1963), Marsh (1966), Pervin (1966), and Summerskill (1962).

Academic factors, e.g., high school preparation and performance in college, motivation, and finances, emerge most clearly from the literature as important determiners of attrition. Illness and injury account for a small portion. Evidence concerning social factors, such as socio-economic variables and personal-social adjustments, is still inconclusive. (Summerskill, 1962, and Astin, 1972)

The dropout issue is usually tied to the larger question of general student characteristics. It is a rather common practice to describe community colleges as extremely heterogeneous. Typically, students are characterized as heterogeneous on the basis of academic ability, aspiration, and socio-economic status. Cohen and Brawer (1970) have pointed out that in spite of apparent heterogeneity on demographic dimensions, little is known about relative heterogeneity on other measures. Some studies suggested homogeneity rather than heterogeneity. Tillery (1964) found that community college students,

in contrast with four-year students, were more interested in applied learning. Both heterogeneous and homogeneous tendencies were found among community college students according to Medsker and Trent (1965). "Perhaps the most general statement that can be made regarding the results of this investigation is that the kinds of data obtained do not suggest the quality of heterogeneity usually ascribed to junior colleges" (Cohen and Brawer, 1970, p. 50).

A comprehensive dropout study by Pervin, Reik, and Dalrymple (1966) commented on the fact that many students experienced relief upon dropping out and later found it to have been a valuable experience. He also found that many others recovered from the initial shock to find more rewarding kinds of experiences. Some of these results are shown in Table 6, which shows a comparison of Princeton and Illinois Universities.

In this same study, Knoell (1966) reported on the community college dropout.

From these and other studies of student characteristics relating to college choice, one gains the impression that the factors determining who goes to which college and for how long (before dropout or transfer) are still very heavily weighed by the economics of the situation. (p. 80)

Similar characteristics in the dropout student in community colleges were found by Cohen and Brawer (1970). These students carry fewer units and it suggested that they are less committed to full-time schooling. It would appear that dropouts are therefore more inclined to leave school when conditions are unpleasant or interfere with other activities, such as a job. Cohen and Brawer also implied, as does

Table 6. Later Success of College Dropouts.  
 Comparison of Later Academic Performance of  
 Princeton and Illinois Dropouts.

	Princeton 1951	Illinois 1956
Percent of entering class graduating in four years from same institution	.82	.29
Percent of dropouts to return to college	.82	.70
Percent of returnees to obtain B.A. degree	.74	.55
Percent of total class to obtain B.A. degree	.94	.70
Percent of non-dropouts to go on for advanced degree	.76	.55
Percent of dropouts to go on for advanced degree	.43	.37
Percent of non-dropouts to go on for further educa- tion who obtain advanced degree	.77	.76
Percent of B.A. dropouts to go on for further education who obtain advanced degree	.78	.66

much of the literature, that dropout propensity is related to financial pressures. Dropouts report more time spent at outside employment than persisters. How much influence employment is, as a reflection of financial needs, is uncertain at this time.

Bogue (1950) in an early review of the community college commented that it is critical for the faculty to help identify potential dropouts, but warned that professionals should do the counseling. Blocker (1965) concurred but stated that, "The concept that every faculty member should be a counselor or even an academic advisor is sheer nonsense" (p. 243). Many students who are potential dropouts show early warning signs. Behavior such as difficulty concentrating, boredom, irregular eating and sleeping, and negative attitudes warn of coming events. (Montgomery and Hills, 1966)

The goals and aspirations of vocation (career) oriented students in community colleges are not really known. According to Cross (1968) in her research description of community college students, little is known about how career-oriented students feel about their college experiences. It was also pointed out that not much is known about the satisfactions and dissatisfactions of those who drop out. "We know almost nothing about those students with obviously unrealistic aspirations" (Cross, p. 50).

Reviews of nationwide studies reported characteristics of students not completing college as well as those who are likely to finish. Reasons for attrition were presented from several studies. The question of homogeneity/heterogeneity was discussed. Reviews also concluded that dropout propensity has been related to financial pressures and unpleasant

conditions at the time of leaving. Great involvement of faculty in identifying potential dropouts is needed as well as more information about career-oriented students.

### Regional Studies

Community colleges on the West Coast have provided much information about attrition and dropout propensity of students. (The various studies from California are discussed in the next section of this review.) One such study was conducted by Wilson (1971) of dropout students at Treasure Valley Community College located in Ontario, Oregon. The purpose of this study was to determine why more than 40 percent of the full-time freshmen at that college did not return to complete their degrees. The author of that study found that it was characteristic of two-year colleges to have a high attrition rate and that dropouts from this college listed reasons consistent with others across the country. Other major contributors to the attrition problem were full-time employment and financial problems. See Table 7.

Two investigations of the "successful" and "dropout" student at Yakima Valley College in the state of Washington were reported by Rice (1969) in a project sponsored by the Washington Board for Community College Education. The most outstanding findings of the first study were the percentages of the "success" criteria: 9.2 percent transferred, 23.4 percent completed 85 quarter hours, and 1.3 percent completed 60 vocational hours. This left 66 percent full-time students classified as dropouts. In addition, sex, high GPA, declared major, proximity to the college, and father's occupation were found to differ

Table 7. Counselors' Reasons Compared with Students' Reasons for Withdrawal.

Reasons Counselors Gave Most Often for Student Withdrawal	Reasons Students Themselves Gave Most Often
1. Financial problems	1. Financial problems
2. Lack of motivation	2. Work needs
3. College work too difficult	3. Military Service (men)
4. Personal and emotional problems	4. Illness (women)
	5. Family problems (illness in the family)

at the .05 level between the two groups. In a follow-up study by Rice and Scofield (1969), a significant difference ( P .01) was found to exist between successful students and dropouts in every school department except practical nursing and German.

Vancouver City College (British Columbia) conducted two significant studies on attrition of their students. First, Dennison and Jones (1970) conducted a three-year study of two groups who transferred from City College to the University of British Columbia. One group transferred after completing only one year of college and the other group after completing two years. It was found that attrition rates of these two groups, as well as graduation, varied according to the university program they entered. In general, students who had completed two years at Vancouver City College, especially those who were 25 years or older, were more likely to graduate on schedule than those who had completed

only one year before transferring. However, it was found that the one-year transfers performed better academically than the two-year students. There was no significant difference whether the students were full-time or part-time as far as completion of their university program was concerned.

The second study conducted at Vancouver City College by Jones and Dennison (1972) was a comparative study of persisters and non-persisters. The results revealed that all types of students, including those of serious intellectual interests and high academic ability, withdrew from the comprehensive community college. The authors made a number of pertinent recommendations. Among them were: (1) community college instructors should be better trained in order to decrease student dissatisfaction, (2) an emergency fund should be established, since "financial problems" were the largest factor in attrition, (3) the "open door" policy should be continued, and (4) informal "drop-in" centers should be started where students could receive academic help.

A similar study of note was conducted of persisting and non-persisting students at Anoka-Ramsey State Junior College in Minnesota. (Weigel, 1969) This report submitted similar findings to that of Vancouver City College, except that the two reasons most often given for leaving college were: (1) another school would offer more that the students were interested in, and (2) a general feeling that the students were "not getting anywhere."

A series of meaningful studies has come from Florida. Three of these are described because of their relevance to this study. Turner (1971) reported limited research in the area of student attrition in

community colleges. He did point out, however, that the findings of studies conducted at four-year colleges, where there has been extensive research, often have relevance for two-year colleges. This survey revealed several student-related and college-related areas that appear to influence discontinuance at community colleges. The author indicated that recent findings of investigations on student attrition have called "academic aptitude" into question as a predictor of persistence in college. In light of this, other factors were sought to explain who drops and why. Turner recommended a closer link between community colleges and secondary schools as an initial step in decreasing college dropouts. Also, student personnel programs and instructional preparation need improvement.

The Florida community colleges have made several attempts to deal with dropouts by designing special remedial programs, particularly with the culturally disadvantaged. At the Miami-Dade Junior College (1969), a pilot program known as the Career College was set up. Objectives included identifying 60 young male school dropouts and enrolling them in a program of full-time study alternating with full-time work. In addition, counseling and related learning experiences were provided to encourage ghetto youths who had left school early to pursue their interests and improve their academic and vocational skills. The report of the Career College's first year of operation describes problems encountered in setting up the program, and no further reports have been made. It is possible that this project, like so many federally supported projects, aborted before meaningful data could be collected.

A more recent attempt at the same school described in a paper by

Losak (1971) tried to answer the question, "Do remedial programs really work?" Continuation in college was one of the dependent variables in a remedial reading-writing program that was evaluated. Students who were classified as academically underprepared for college-level work were required to enroll in the remedial program. Results indicated that the program did not produce any meaningful differences in student withdrawal from college and was not effective in raising grade point average during the second semester of college enrollment to a "C" level. Also, there was no evidence that these students received significantly higher scores on reading or writing tests when compared with the control group. The remedial program produced no differential effects by race or sex.

Other contributions concerning community college dropouts have come from the state of Pennsylvania. The State Department of Education (1971) with the sponsorship of the Department of Health, Education, and Welfare and the Division of Vocational and Technical Education conducted a study of the academically disadvantaged minority group students in Pennsylvania public two-year colleges. The discussion concluded that these students usually come from minority groups, were underrepresented in institutions of higher education, had little economic support, and were characterized by marginal academic qualifications. There were implications that administrators of two-year colleges needed to be more sensitive in identifying and selecting students who might have some chance of academic success. Blai (1972) reported research done at Harcum Junior College, Bryn Mawr, Pennsylvania, near Philadelphia. He presented a study on the two-year dropout from that

college in comparison with two- and four-year institutions, both public and private, large and small, and coed vs. single sex colleges. Blai's conclusion was that small enrollment schools (250-750), whether two- or four-year, enjoyed higher retention rates. The value of special programs for potential dropouts and types of college environments that seemed to foster higher dropout rates were also discussed.

In an earlier paper, Blai (1969) described characteristics of Harcum Junior College students on the basis of four studies conducted during the fall term. The first was a survey to determine students' reasons for attending that school: a substantial number viewed their college education as a means of acquiring future direct, material rewards. In another study on student attrition, a variety and complexity of factors, both situational and personal, were associated with withdrawal from college. Blai then compared Harcum students with five selected women's colleges on retention and withdrawal patterns and reported that the most frequently stated reason given by Harcum students was to transfer to a four-year college. In a study surveying 100 community colleges, results showed that 70 percent of eligible first-year students did not return. There was, however, no consistent retention rate among institutions, either in terms of enrollment size, types of student body, or types of institutional control. Blai also reported the results of an instrument measuring study habits given in the freshman battery of guidance tests and inventories. In comparison with a normative group of 3,054 freshmen from nine colleges, Harcum students fell at approximately the 50th percentile on each measure. As a result, students scoring at, or below, the 25th percentile were given

information for developing better study habits.

A profile of non-persisting students was presented in a research report by former students of the Harrisburg Area Community College (Snyder and Blocker, 1970). This was the third in a series of studies conducted to provide information about the characteristics, achievements, perceptions, and activities of its current and former students. Out of thirteen possible reasons for withdrawing from the college, the four most frequently specified were: (1) to attend another college, (2) to enter the armed services, (3) employment, and (4) their objectives were completed.

Similar studies have been presented in the Midwest by Stocking (1969), Purser (1970), and Greive (1970). In Greive's study of student attrition, one significant finding was that only 5 percent of the students reported that college was not for them.

One other report is worthy of review. The Macomb County Community College (1968) presented an extensive report on a project to improve persistence in school by potential dropouts. The evaluation indicated that students in this program did significantly better than a comparison group of regular liberal arts students. Also, those who persisted into their second year continued to achieve ahead of the liberal arts group. This study supports others mentioned in this review about the effectiveness of action-type programs to reduce student attrition at community colleges.

This section reviewed supportive studies from various sections throughout the country and Canada, including the West Coast, Midwest, and the East. Meaningful research was reported from Pennsylvania and Florida in particular.

### California State Studies

Concern with the phenomenon of dropouts has nationwide implications. However, Cohen and Brawer (1970) reported that the highest differential between entrants and graduates is in the California public institutions. This is not surprising, with the growth of public community colleges in that state. California was the first state to enact legislation to permit high schools to offer post-high school instruction (1907) and it has been a forerunner in this segment of higher education ever since. In the decade from 1960-1970, the California population grew to number one in the nation with nearly 20 million people. The enrollment in community colleges during that period went from 293,000 to 717,000, an increase of 250 percent. The number of community colleges grew from 73 to 92. Since 1947, the number of community colleges in California has almost doubled. (American Association of Junior Colleges, 1971, and Gum, 1971) This extraordinary development, coupled with the "open door" policy and "free" education, has caused the dropout problem to become a major concern among educators as well as in the community which is financing this gigantic enterprise.

As a result of a summer research institute sponsored by the California Junior College Association in 1966, 28 California community colleges formed a group called the Northern California Research and Development Group (NORCAL). (MacMillan, 1970) Twenty-two of these schools expressed willingness to cooperate on a proposed major project on student attrition. The purpose of the project was to develop a predictive instrument to identify potential dropouts. Three phases were agreed upon:

1. Description - The identification of characteristics associated with attrition during the initial period of enrollment.
2. Prediction - The development and validation of a predictive model of attrition, based on the findings of Phase I.
3. Experimentation - The development and testing of experimental programs to have an impact on attrition. (MacMillan, p. 28)

Each phase of the project was for one year, and each of the cooperating colleges agreed to share part of the cost.

A series of reports by MacMillan (1969a, 1969b, 1970a, and 1970b) and Kester (1970, 1971a, 1971b, and 1972) presented the extensiveness of this project.

A questionnaire was developed and administered to all entering freshmen students at registration. At the end of the term, withdrawals were identified and compared with responses of a randomly selected sample of persisters. Noncognitive factors associated with the decision to withdraw from college were identified by a cooperative search of the current literature.

Responses of more than 28,000 entering freshmen students were analyzed. Findings generally supported the review of Summerskill (1962). A rich source of information about longitudinal studies using extensive biographical questionnaires was the contribution of Trent and Medsker (1964). What became clear was that ability and motivation remain the central elements in the prediction of attrition. Also, this study, as well as another by Kester (1970), revealed that the low-ability, black male who has low educational goals, little parental encouragement, and a low sense of the importance of college is the one most likely to drop out.

Attrition rates were compared for all the 22 cooperating colleges. The range was between 3.9 percent and 21.24 percent, with a mean of 7.47 percent. The measured ability of withdrawing students was compared with randomly selected persisters. The persisters' mean fell at approximately the 41st percentile, according to ACT research reports, while the withdrawing students' mean fell at approximately the 50th percentile.

The most striking of the findings was that institutions having the highest attrition also have the following characteristics:

1. Greatest racial mix.
2. Smallest proportion of students declaring a "transfer" goal.
3. Lowest mean scores for "parental encouragement" and "importance of college to me."
4. Lowest proportion of sophomores enrolled.

"That the community college environment provides its own pattern of support or rejection for the potential dropout is the undeniable evidence of the NORCAL study" (MacMillan, 1970, p. 30).

In a further evaluation of the NORCAL questionnaire, Kester (1972) reported that another research question dealing with the predictive validity of the instrument emerged as to significant differences between the subsequent performance levels of these groups. This secondary validation compared attrition rates, units completed, and grade point averages between the groups for which scores were known. The results of validation study indicated that students identified as potential dropouts by the NORCAL questionnaire were compared with other students. It was clear that potential dropouts:

1. Have a significantly higher dropout rate.
2. Complete fewer units.
3. Have lower grades.

The results of a major research effort by NORCAL and the Coordinating Council for Higher Education in California in studying community college attrition were reported by Kester (1971). This study differs from the original NORCAL attrition study. That study was designed to follow up those students who completed one or more terms before withdrawing ("stopouts") as opposed to those withdrawing during their first term ("dropouts"). A questionnaire was sent out to stopouts completing only one, two, or three terms. The differences in characteristics of the three groups of stopouts were compared and their similarities were discussed. The stopouts gave two areas as needing improvement: (1) increased financial aid to a larger proportion of students who need it, and (2) development of a more realistic view of responsibility in career education. This tends to support earlier findings of Hakanson (1967), Cross (1970), and Cohen and Brawer (1970).

One lesson learned from the three-year NORCAL attrition study was that many potential dropouts can be helped. (Kester, 1971b) In the third, or experimental, phase plans were developed for research projects for some of the participating colleges. A number of approaches that gave evidence of value were tried and reported. While many of the participating schools were hampered by limited sources and lead time, 12 colleges conducted true experiments with defineable treatment variables. Other schools conducted quasi-experimental studies or did further validation of the NORCAL instrument. Special programs in Los

Angeles City College, Merritt College (Oakland), Delta College (Stockton), College of San Mateo, and Shasta College were reported.

These studies provide no panacea, though valuable lessons have been learned. The NORCAL attrition study showed that community college potential dropouts could be diagnostically identified before dropping out. Also, community colleges could reach those so identified and help them toward better performance.

A compilation of selected research on students in higher education was presented in a review of student characteristics by Cohen and Brawer (1970). Two of the studies they reviewed were from a suburban Southern California community college, Pierce College, and both used the same populations, the same instruments, and in most cases, the same data analysis. However, one study dealt with the heterogeneity/homogeneity dimension, while the other approached the attrition problem. Both looked at particular characteristics to establish baseline data. They found that the community college population was more homogeneous than either reference group, UCLA freshmen and a normative group. Significant relationships were found between high complexity scores on the Omnibus Personality Inventory and dropout. Other significant findings were that dropouts:

1. Were enrolled for fewer than twelve units.
2. Tended to be employed more time outside school.
3. Had attended more schools prior to tenth grade.
4. Had mothers with less education.

Dropouts had lower mean scores on the Adaptive-Flexibility Inventory, but the differences were not significant. (Cohen, 1969)

The purposes of the study of student attrition were to provide data for:

1. Enhancing the accuracy of predictions of student attrition.
2. Adjusting counseling procedures.
3. Encouraging community college instructors to define their objectives more precisely for students.
4. Developing hypotheses for identifying potential dropouts. (Cohen and Brawer, p. 29)

These two studies emphasized that (1) family environment was important in determining student persistence, and (2) length of exposure to higher education was conducive to positive personality change. No significant differences were found between dropouts and persisters on several selected measures.

Ten other studies from community colleges at various locations in the state were reviewed and the highlights of these are presented.

1. In a follow-up study of the community college withdrawal student at Foothill College, Bossen (1968) found that more than one reason was involved in the student's decision to leave college. For a majority, reasons included personal, social, and academic categories. This study emphasized the need for exit interviews as part of withdrawal procedure. Analysis of the data revealed that almost half the withdrawal group returned to college at a later time.

2. Los Angeles City College conducted a program for socio-economically disadvantaged students. (Ware and Gold, 1970) One of the objectives was to determine if peer advisors could influence the academic success and motivation of these students. There was also a comparison group of similar students who did not have peer advising and

a comparison group of regular entrants. Results after the first semester showed that the experimental group persisted at a statistically significant higher rate than the other two groups. These students also performed at a higher academic level than the second group, and almost identical with the third group, who had demonstrated a higher aptitude for college work on the entrance examination.

3. Evaluation of a general studies program for the potentially low academic achiever was done by Heinkel (1970) at San Diego City College. A sample of first-time enrollees who scored 10 or less on the ACT English test were enrolled in an experimental program. Completion of the program encouraged males and minority students to re-enroll for a second semester. Minority students who enrolled dropped fewer units the first semester than minority students who were not enrolled in the program. No other statistically significant differences could be attributed to the program.

4. A research study was conducted by Moorpark College on the development of prediction of student "dropout" rate and "change to other" major rate. It was suggested that prediction might be possible by simply asking students about themselves with an instrument similar to the one used in this study. (Jay, 1962) Evidence presented showed that late registrants are more drop-prone than other students.

5. A comparative study of students with re-occurring dropout patterns for 1970-1971 and 1971-1972 was conducted at Chabot College. (Mertes, 1972) This study identified students who had accumulated two or more withdrawal (W) grades or two or more no-grades, or a combination of at least one "W" and one "NG" for two or more

quarters. The students had the option of requesting a "W" through the eighth week in the 1970-1971 year, while they had this option only through the fifth week during the 1971-1972 school year. The faculty and staff were interested in investigating what effects the shortening of the "W" period would have on students' persistence. It was hoped that the shortened period would have positive effects on student responsibility, and on the faculty's assigning fewer "W"'s and more academic grades. The data gave no conclusive evidence on the effectiveness of shortening the "W" period. Over 85 percent of the students from both populations failed to complete less than 70 percent of the units for which they initially enrolled. The results of this study indicated little correlation between the length of the "W" period option and reduction in the percentage of students who have re-occurring dropout patterns. Mertes recommended in-service workshops to encourage improvement in teaching. It was also recommended that special counseling be instituted specifically designed to aid students who have re-occurring dropout patterns. One recommendation of this study was to defer placing on probation those students with re-occurring dropout patterns who completed less than 70 percent of the units in which they initially enrolled. "We simply can't afford to defer that number of students from attending college unless we have more specific ideas about what is causing these students to drop" (p. 9). It was pointed out that this study did not measure the attitudes of the dropout student toward accepting responsibility for his own learning, nor did it measure the qualities of a good learning environment. Continual institutional study on the dropout student was recommended.

6. Some variations in probabilities of success, failure, and dropout were studied at El Camino College. (Maier, 1971) The study focused on the problem of students dropping mathematics courses and the development of a method to minimize the number who dropped and maximize the number who succeeded. Results indicated that there were fewer dropouts and increasing success as students progressed through mathematics courses. It also indicated that the dropout problem was one for the student, counselor, and instructor. The author recommended that this problem could be attacked through the use of self-instructional material. He also admonished all community college instructors to examine the success, failure, and dropout rates in their classes and make an effort to increase successes and decrease dropouts.

7. An investigation of why students failed to return or continue their education was reported by Orange Coast College (1969). This was a joint study sponsored by the district and the California State Department of Education. The investigators found that a large percentage of students who did not return could not be reached by mail and were contacted by telephone. They found that nearly one-half of the students expected to return the following semester while one-third actually did. In addition, about one-third went to college to avoid the draft, 68 percent of those working while attending worked full time after leaving; and 74 percent reported they did not receive any job placement help.

8. Cabrillo College (Moze, 1964) conducted a survey of 700 students who withdrew. Findings showed that 64 percent had intended to transfer to a four-year institution at the time of enrollment, 32

percent declared a "terminal" or career major, and only 4 percent were unknown. Of the students, 45 percent completed the regular withdrawal forms. Reasons stated were:

	%
Transfer to other colleges	25
Work	20
Financial	11
Lack of interest	9
Moving out of district	9
Armed Forces	7
Marriage	7
Health	4
Transportation	-1
Disciplinary	-1
Other reasons stated	7 (p. 3)

Of the 700 students involved in this study, 275 (39 percent) completed at least four semesters of college work. It was suggested that many of the students who withdrew prior to the completion of two years had undoubtedly satisfied immediate educational needs. A follow-up study was recommended of a sampling of the withdrawal group to determine their satisfaction with their college experience and their employment or activity record following withdrawal from Cabrillo. Further, this should be done on an individual interview basis.

9. In a summary of a research study following a group studied earlier at Los Angeles City College, Gold (1971) made this startling observation:

The image of a student starting directly from high school, carrying a full load for four semesters, and then obtaining an A.A. degree is a highly inaccurate one. Only about one entering student in a hundred fits this pattern. (p. 1)

He also stated that about one entrant in five persists to the Associate Degree. However, the number completing the degree by the end of the

eight semester was about three times those completing it in four semesters. Gold revealed that female students persisted at a slightly higher rate than males, their grade point averages were consistently above that of males, and they persisted to the A.A. Degree at a significantly higher rate than males. He also found that orientals persisted at a much higher rate than other minorities. Blacks had difficulty the first two semesters, then made sharp improvements later. The "average" student at LACC stayed three semesters and completed 30 units. The range of length enrollment was less than one semester to more than eight, carrying from zero to over a hundred units.

10. A study of 1,000 students who entered six public community colleges, designed to identify certain characteristics of students in occupational programs, was reported by Hakanson (1967). The author observed that most enrollments and completions were from the middle socio-economic level. He concluded that low and middle socio-economic groups are more likely to complete occupational programs than those of higher status. He also showed that these colleges were failing to help academic program dropouts re-assess their goals rather than withdraw.

This review on the state level indicated a wide variety of research studies relating to attrition in the California community colleges. The rapid growth in schools and students, its "open door" policy, and "free" education was not without its difficulties. It was reported that California has led the nation in dropouts. Research was reported on the various attempts to identify potential dropouts and how to deal with them. The three-phase NORCAL study presented a major effort in this direction. Valuable lessons were learned, particularly in the action

research at local institutions during phase three. Highlights of studies from California community colleges throughout the state were presented.

### San Mateo Community College District Studies

The College of San Mateo, one of three schools in the district, cooperated in the three-year NORCAL study reported earlier in this study. The third phase of this project was to develop and evaluate programs designed to reduce attrition. Wenrich (1971) reported on an experimental study to determine whether involvement in an individualized instructional program, The Learning Center, would reduce attrition of first-time freshmen who were identified as high probability dropouts. Forty-nine potential dropout students who were actively involved in the Learning Center were compared with 49 potential dropouts who received no special treatment. These 98 students were identified by using the list of discriminant scores developed during the validation of the NORCAL questionnaire. Active association with the Learning Center was the dependent variable. Measurable results indicated that the experimental group as opposed to the control group had:

1. Fewer withdrawals during the semester.
2. More students who completed a full course load.
3. Fewer students who failed to register for the second semester.
4. More students who achieved a 2.0 grade point average.
5. More students who did as well or better in college as they did in high school.

The experimental program was proven effective by both measurable and subjective evaluation. Tutoring by other students was considered the heart of the program, with flexibility the key experimental feature. It was felt that the most important aspect of the Learning Center approach was the integration of individualized academic services with supportive psychological atmosphere and personal counseling.

It can be asserted that the success of the Learning Center should be described in terms of a Hawthorne effect: that any special treatment and interest shown in these students will have a positive effect . . . A self-fulfilling prophecy is created; students who are expected to succeed generally do so. (Wenrich, p. 28)

In an earlier study, Wenrich (1969) reported what he considered exceptional rather than typical results on the School and College Ability Tests (SCAT). Ability scores were reported for the College of San Mateo as a part of the NORCAL study. A comparison was made between a random sample of persisters and a matched sample of 81 dropouts from the NORCAL study. Wenrich suggested that students who withdrew from the College of San Mateo in the fall of 1968 were generally of higher ability than those persisting during the same period.

During the second year of the NORCAL study, Kelley (1970) attempted to obtain further information about the dropout problem. A follow-up study was conducted using a sample of students who left school before the end of the first semester. A questionnaire was sent to those who were first-time freshmen; 31.5 percent returned the follow-up questionnaire. Of significance was that among the group of dropouts, most had decided on a major and this choice had not changed. Fifty-two percent were employed while they were enrolled; 23 percent indicated they needed further financial aid; however, only 16 percent had applied

and 11 percent had received aid. "No single obstacle stands out as primary reason why he may drop out of college" (Kelley, p. 10).

A description of the first two and one-half year history of the College Readiness Program (CRP) at the College of San Mateo was reported by Lopate (1969). This was a study of one collegiate compensatory program for minority youth. This program attempted to increase the number of Third World students in the college and to insure that, once admitted, these students would be given the necessary financial, emotional, and academic backing to succeed within the college. After a relatively successful beginning, a crisis arose as a result of a financial curtailment and the administration's refusal to students' demands. A series of violent incidents followed, resulting in the closing of the campus a week early before Christmas vacation. Efforts were made to help students remaining in the program to catch up. Although grading was liberalized, attrition rose to 55 percent by the end of the spring semester, 1969. It was pointed out the necessity for closer personal relationships between staff and minority students in order to hold them in school. In his "heretical concept of the community college" (1969), Cohen remarked:

Simultaneously pleading and protesting, they say, in effect, "We want to know why we are here, and you do not seem to be qualified to tell us." (p. 166)

Pearce (1968) attempted to determine the effectiveness of identifying low ability students and assisting them in performing satisfactorily in college work. A total of 254 students were identified and randomly divided into two groups. One group received special counseling and guidance and the other received counseling available to all

students. This report revealed that students given the special counseling persisted longer at the college. At the end of the first year, however, there appeared to be no significant difference in the retention rate among the two groups.

In a two-year study at the College of San Mateo of freshmen with "undecided major," Clinkscales (1971) sent a questionnaire to 52 of the largest community/junior colleges in California. Fifty percent responded to the inquiry about studies concerning the undecided student, but regretted the absence in their schools of such a study. The author selected a sample of students and followed them for two years for total units completed, grade point average, continuation in school, and any changes in major. A comparison was made between students declaring a transfer major and those undecided. The undecided majors were divided into two groups: those completing the vocational guidance course and those who did not. Findings included were that there was no significant difference in the dropout rate in a comparison of the undecided and transfer majors. Also, there was no significant difference in the dropout rate of the undecided majors with or without Guidance 10, the vocational guidance course. This study revealed that the freshman of undecided major was a persistent student. He will stay in school longer, complete fewer units, and have a lower grade point average than his transfer counterpart. Clinkscales made this observation, "It would appear that the present counseling program at CSM is not adequately constituted to handle the problem of vocational counseling" (p. 38). He believes that additional information might have been added to this study with the use of data processing to include:

1. Correlation of entrance aptitude scores and CSM grade point averages.
2. Correlation of high school grade point average and CSM grade point average.
3. CSM dropout rate and CSM grade point average.
4. Patterns of changing major to individual majors, not just groups of majors.
5. Socio-economic scale and major declaration.
6. Number of units completed for each transfer major at time of transfer.
7. Length of stay at CSM by major. (p. 39)

The author of this study concluded by remarking that without some kind of feedback, the counseling program will never be completely effective, or it will not even be known how effective it really is.

Experiencing a 72 percent dropout rate of students enrolled in the Drafting Technology Department at the College of San Mateo, McClure (1972) conducted a study dealing with this problem. He attempted to determine what aptitudes and abilities students must have to complete the program successfully. The sample was divided into six groups according to the student's educational and occupational accomplishments after entering the program and totaled 200 observations. A total of 27 prediction factors were examined for each student. The researcher found five aptitude factors on the General Aptitude Test Battery (GATB) that proved valid for predicting student success at the .01 confidence level. They were: intelligence, numerical, spatial, form perception, and manual dexterity. In developing a counselor's guide, McClure added to the five: finger dexterity, GATB, score on the School and College Ability Test, Form T, and high school science level of achievement. It

was concluded that: "Success in the Drafting Technology Program at the College of San Mateo required greater abilities as measured by the GATB scores than employment success as indicated by national norms" (p. ix).

As was pointed out earlier, no recent formal study of attrition had been conducted by this district. An initial attempt was made by McKeown (1972) at Canada College, one of the schools in the San Mateo Community College District. This study was based upon a sampling of 792 former students dating back to the beginning of the school in the fall of 1968. Information was compiled on students not currently enrolled from their permanent records and from responses to a mailed questionnaire. The return rate was 29.3 percent, as would be expected of the majority of community college surveys. (Wilson, 1971) While it is dangerous to draw any conclusion on such a low return rate, the author was able to display the differences between those who returned the questionnaire and those who did not. The three areas of difference that emerged were: attendance, educational background, and academic achievement while attending Canada. Results indicated that these students were not statistically unusual in their characteristics or college evaluations when compared with other community college follow-through studies. While most community college students work to finance their education, the combination of working and attending college was not related to dropping out, grade point average, or anything else. Students tended to rate the instructors high and their counselors low. They did not spend much leisure time on campus, were not active in extracurricular activities, and usually studied at home. They rated:

Preparation for further education	highest
Quality of teaching	second
Preparation for employment	third
Quality of social life	lowest (p. 42)

These ratings were similar to Baird, Richards, and Shevel's description (1969).

McKeown related that:

Specific instruments and experiences since leaving college and additional techniques will be required to make our research more effective. We need an interview/questionnaire especially for dropouts, and we need to ask them the right questions as soon as possible after they leave. (p. 43)

A review of local district studies which were limited primarily to disadvantaged students revealed several attempts to lower attrition. Samplings in these studies were those included in the NORCAL study. At the College of San Mateo, one study included those students who were undecided as to major. Another study reported on a career-oriented program, namely Drafting Technology. An initial attempt at studying attrition was reported at Canada College. The need for careful analysis of high student attrition was pointed out, and all segments of the college community should be involved.

## CHAPTER III. DESIGN OF THE STUDY

### Introduction

The procedure involved determining the common factors influencing student decisions to terminate course work at the College of San Mateo. Data were gathered through a personal exit and follow-up interview. The interviews facilitated gathering data concerning the primary reasons for attrition. The data were analyzed with the aid of the Oregon State University and the College of San Mateo computers.

### Procedures

The primary source of data for this study was obtained through personal interviews. To supplement the interview, additional information was gathered from the permanent records of students in the study.

A procedure for gathering data was developed with the aid of the Dean of Students, the Director of Counseling and Guidance, and the Registrar. At the outset, the decision was made to restrict this study to day students only, enrolled in the fall semester, 1972.

The procedure was as follows:

1. An in-service session was conducted with all counselors prior to the fall registration.
2. A follow-up meeting with the counselors' task force reviewed student personnel problems including dropouts.
3. Some of these counselors, the three deans, and three students were invited to be a jury to review questions on

the exit and follow-up interviews. (See Appendix A)

4. Special effort was made to encourage students to apply for a leave rather than just drop out without notice. Use of various media on campus was used. (See Appendix C)
5. Several conferences with the President, Dr. David Mertes, who demonstrated keen interest in this study, were made.
6. The exit interviewing began at the beginning of the fifth week. The rationale was: This was the week following the deadline for adding any new classes, and this was the beginning of the period when most students took a leave of absence based upon records of previous years. Table 8 displays the interviews through the sixteenth week.

Table 8. Exit Interviews During Specific Weeks.

Week	M	T	W	Th	F	Total
5th	8	7	5	5	7	32
6th	3	7	3	1	9	23
7th	Holiday	10	6	8	4	28
8th	4	6	1	-	-	11
10th	-	2	1	1	3	7
12th	3	-	-	-	-	3
15th	-	1	2	1	1	5
16th	-	-	1	-	-	<u>1</u>
						110

7. Students began the checkout procedure with their counselor or at the Student Personnel Office. The investigator interviewed the students after reporting to the Student Personnel Office or Dean of Women's Office. (See Appendix D)
8. Counselors were asked to log the names of their counselees and record any pertinent remarks. This served as a cross-check. The memoranda and form are shown in Appendices G and H.
9. The follow-up interviews were conducted during February and part of March. Most of these were accomplished by telephone. Some of the students who had returned during the spring semester were interviewed in person.
10. A data processing run was made at the College of San Mateo to collect additional data of the students participating in this study. A facsimile of the student data sheet is shown in Appendix I.
11. The data gathered were analyzed by the Statistics Department at Oregon State University.

#### Participants in the Study

The College of San Mateo enrolled approximately 7,600 full-time equivalent day students during the fall semester, 1972. Past records indicated that nearly 10 percent of the student population applied for a leave of absence. It was determined that a 10 percent random sample of the students who applied for a leave from the fifth week of the semester through the sixteenth would be taken. It was limited to day

students only. This random sample of the approximately 760 students was drawn by accepting students to interview as they were routed from the Student Personnel Office after Item 7 or Item 10, the Dean of Women's Office, on the checkout procedure. (See Appendix D) Students were assigned to one of three groups:

Group I: Those students who intended to transfer to a four-year institution. This consisted of satisfying the lower division requirements for that major at a particular college or university.

Group II: Those students who specialized in a program in an occupational field planning to prepare for gainful employment.

Group III: Those students who did not declare a specific major, either in transferring to a four-year institution or specializing in an occupational field.

Grouping occurred after exit interviews took place. This information was obtained from records in the Registrar's Office, along with the original date of registration for each individual student. Because this data was not on the computer data file, it was extracted by hand.

A total of 110 individual students were interviewed during the pre-determined period. One student did not wish to be recorded and that request was honored. In addition, it was discovered that one was an evening student and was deleted from the study. Therefore, for statistical purposes, 108 students were included in the sample.

Information obtained from the Student Personnel Office indicated that 845 day students applied for the leave of absence, 252 of which registered only (R/O) and never attended classes. Thus, approximately 18 percent of the students taking a leave of absence during the fall

semester, 1972, were the sample used in this study. This exceeded the 10 percent predetermined amount for the sample.

### Construction of the Exit Interview

A review of the literature revealed few studies incorporating both the individual and personal interview. Numerous questionnaires were reviewed in an attempt to obtain items suitable for this study. The vast majority of these questionnaires were more appropriate for the more traditional mail survey. Assistance was afforded by a group of high school and community college counselors enrolled in a guidance class at Oregon State University during the summer of 1972. A cursory review of the initial draft was given by several members of the staff at Oregon State.

In addition to a counselors' in-service workshop at the College of San Mateo, several students, former dropouts, were asked to submit questions they believed to be appropriate. The Dean of Students and the Director of Counseling and Guidance from the College of San Mateo critiqued the initial draft.

The final draft was submitted to a jury of faculty, counselors, and students from the college for review. After one week of interviews, an informal discussion with members of the jury revealed the necessity for minor changes. It was believed that these minor changes, predominantly in wording, would have no effect on the validity of the study. A sample of the exit interview questionnaire is shown in Appendix A.

### Construction of Follow-Up Interview

Follow-up interviews were conducted for the purpose of comparing responses with the exit interview and to determine any changes in students' initial responses.

Items for the follow-up interviews were developed and reviewed by some of the original jury. Several students who had withdrawn the previous semester were also invited to respond. Additional items were included by the investigator on the basis of experience gained through initial interviews. In order to quantify data on student values, three items were included in which the students rated themselves on a one to nine scale. Items were constructed to determine: (1) to what extent the students had realistic goals, (2) motivational factors in attending college, and (3) their own value judgment of their decision in taking a leave. A copy of the questions asked is shown in Appendix J.

### Collection of Empirical Data

Both exit and follow-up interviews afforded students an opportunity to voice reasons for leaving school. Interviews sought to identify underlying causes not ordinarily reported on written questionnaires. Observations were made during the interview for non-verbal as well as verbal responses to questions. Inasmuch as most of the exit interviews were recorded on cassette tapes, additional time was spent reviewing them for additional information not readily available from a written questionnaire. Abridged comments and responses are recorded in Appendix K.

### Analysis of Data

Once the data for use in this study had been collected and categorized, the following steps were undertaken for analysis of the results:

1. Upon the completion of the exit interviews, the data were analyzed using the CDC 3300 Computer at the Oregon State University Computer Center.
2. The data were analyzed using a CHI-square test program by the Department of Statistics. Each hypothesis was tested using the appropriate category.
3. Each category was statistically compared by the use of the CHI-square statistic. The critical level of significance was set at the .05 level.

## CHAPTER IV. PRESENTATION AND ANALYSIS OF DATA

Introduction

This chapter presents the findings and a discussion of the results of data for each of the six hypotheses cited in Chapter I. Chapter III contained the procedure used to conduct this study. In order to test statistically the null hypotheses, the CHI-square test was used. The chapter is arranged according to the order of the hypotheses and the responses to reasons for leaving by each group. At the conclusion of this chapter, other data will be presented.

General Characteristics

Distribution of the sampling by major is illustrated in Tables 9 and 10. Students were classified: (1) transfer, (2) career, and (3) undecided as determined by their major code at registration for the fall semester, 1972. Thirteen students were classified as both transfer and undecided. Table 9 shows this group as transfer majors while Table 10 shows them as undecided. The rank order of reasons for taking a leave is shown in Table 11. The primary reasons given for termination were:

- Full-time employment
- Health
- Finances
- Personal problems

Lesser reasons for attrition included:

- Poor grades or aptitude
- Marriage
- Change in major
- Not satisfied with classes

Table 9. Distribution of Sampling by Major.

	N	%
Transfer	69 *	64
Career	31	28.5
Undecided	<u>8</u>	<u>7.5</u>
Total	108	100

\* Includes 13 also classified as undecided.

Table 10. Distribution of Sampling by Major.

	N	%
Transfer	56 *	52
Career	31	29
Undecided	<u>21</u>	<u>19</u>
Total	108	100

\* Excludes 13 also classified as undecided.

Table 11. Rank Order of Stated Reasons for Taking  
Leave of Absence (As Stated by Students).

	N	Approximate %
1. Full-time employment	30	28
2. Health (Personal 12) (Family 3)	15	14
3. Finances	11	11
4. Personal problems	11	10
5. Conflict of work schedule	7	6.5
6. Lack of interest (motivation)	7	6.5
7. Military	7	6.5
8. Moved or transferred	6	5.5
9. Attend other school	5	4
10. Poor grade/aptitude	3	3 (less than)
11. Marriage	2	2 (less than)
12. Change in major	2	2 (less than)
13. Not satisfied with classes	<u>2</u>	<u>2</u> (less than)
	108	100%

A breakdown by category of students and reasons for leaving is shown in Tables 12 and 13.

Table 12. A Breakdown by Category of Students (Transfer, Career, or Undecided) of Reasons for Leaving at Exit Interview.

	Reason **													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Transfer	21*	7	9*	4*	5	5*	6*	5	3	1	1	1	1	69
Career	8	6	1	6	2	1	1	1	2	1	1	0	1	31
Undecided	1	2	1	1	0	1	0	0	0	1	0	1	0	8
Total	30	15	11	11	7	7	7	6	5	3	2	2	2	108

\* Includes 13 also classified as undecided.

\*\* Codes as shown in Table 11.

Table 13. A Breakdown by Category of Students (Transfer, Career, or Undecided) of Reasons for Leaving at Exit Interview.

	Reason													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Transfer	15*	7	7*	3	5	2*	5*	5	3	1	1	1	1	56
Career	8	6	1	6	2	1	1	1	2	1	1	0	1	31
Undecided	7	2	3	2	0	4	1	0	0	1	0	1	0	21
Total	30	15	11	11	7	7	7	6	5	3	2	2	2	108

\* Excludes 13 also classified as undecided.

Other characteristics, such as semester units carried at various times, are shown in Appendix L.

### Presentation of Findings

The CHI-square test statistic, with alpha = .05 as the level of significance, was employed in testing all six null hypotheses.

#### Findings Related to the First Hypothesis

The null hypothesis that there would be no significant difference in responses among those enrolled in transfer and career programs was tested. Response items of these groups are shown in Table 14, including 13 students classified as transfer rather than undecided. Table 15 compares these two groups with the 13 students being assigned as undecided, thereby eliminating them from this count. In testing this hypothesis, Items 1 through 9 were used, and Items 10, 11, 12, and 13 pooled for statistical purposes and assigned the category "other." It is noted that in both cases the calculated value for CHI-square was less than the tabular value (Steel and Torrie, 1960) which was found to be 16.9. Null hypothesis was not rejected, indicating that there was no significant difference in reasons for leaving between transfer and career majors.

#### Findings Related to the Second Hypothesis

The second null hypothesis tested the significance of responses among those enrolled in transfer programs and those undecided as to major. As was described in the first hypothesis, 13 students were

Table 14. Contingency Data of Transfer vs. Career Students.

---

	Reason									
	1	2	3	4	5	6	7	8	9	10 **
Transfer	21*	7	9*	4*	5	5*	6*	5	3	4
Career	8	6	1	6	2	1	1	1	2	3

---

Degrees of Freedom = 9

CHI-square = 10.2827

\*\* Pooled

\* Includes 13 also classified as undecided.

---

Table 15. Contingency Data of Transfer vs. Career Students.

---

	Reason									
	1	2	3	4	5	6	7	8	9	10 **
Transfer	15*	7	7*	3*	5	2*	5*	5	3	4
Career	8	6	1	6	2	1	1	1	2	3

---

Degrees of Freedom = 9

CHI-square = 8.5224

\*\* Pooled

\* Excludes 13 also classified as undecided.

---

classified as both transfer and undecided. Table 16 shows these students as transfer. Table 17 shows these students as undecided. Because of the small number of responses in the undecided group, it was determined to pool Items 5 through 13 and assign them the category "other." Again, in both cases, the calculated value for CHI-square was less than the tabular value, which was found to be 9.49. Therefore, the null hypothesis was not rejected, indicating that there was no significant difference in reasons for leaving between transfer and undecided majors.

#### Findings Related to the Third Hypothesis

The third null hypothesis tested the significance of responses among those enrolled in transfer programs and the composite (total) group. Table 18 includes the 13 students classified as both transfer and undecided, while Table 19 excludes them. As in the first hypothesis, Items 10 through 13 were pooled. Again, it is noted that in both cases the calculated value for CHI-square was less than the tabular value, which was 16.9. Therefore, the null hypothesis was not rejected. This indicated that there was no significant difference in reasons for leaving between transfer majors and the composite group.

#### Findings Related to the Fourth Hypothesis

The fourth null hypothesis was tested to determine the significance in responses among those enrolled in career programs and those who were undecided as to major. Table 20 shows this comparison excluding the 13 students classified as both transfer and undecided. Table 21 shows the comparison between these two groups including the 13. For

Table 16. Contingency Data of Transfer vs. Undecided Students.

---

	Reason				
	1	2	3	4	5 **
Transfer	21*	7	9*	4*	28*
Undecided	1	2	1	1	3

---

Degrees of Freedom = 4

CHI-square = 2.6751

\*\* Pooled

\* Includes 13 also classified as undecided.

---

Table 17. Contingency Data of Transfer vs. Undecided Students.

---

	Reason				
	1	2	3	4	5 **
Transfer	15*	7	7*	3*	24*
Undecided	7	2	3	2	7

---

Degrees of Freedom = 4

CHI-square = 1.1348

\*\* Pooled

\* Excludes 13 also classified as undecided.

---

Table 18. Contingency Data of Transfer vs. Composite Students.

	Reason									
	1	2	3	4	5	6	7	8	9	10 **
Transfer	21*	7	9*	4*	5	5*	6*	5	3	4
Composite	30	15	11	11	7	7	7	6	5	9

Degrees of Freedom = 9

CHI-square = 2.7625

\*\* Pooled

\* Includes 13 also classified as undecided

Table 19. Contingency Data of Transfer vs. Composite Students.

	Reason									
	1	2	3	4	5	6	7	8	9	10 **
Transfer	15*	7	7*	3*	5	2*	5*	5	3	4
Composite	30	15	11	11	7	7	7	6	5	9

Degrees of Freedom = 9

CHI-square = 3.1575

\*\* Pooled

\* Excludes 13 also classified as undecided.

Table 20. Contingency Data of Career vs. Undecided Students.

	Reason				
	1	2	3	4	5 **
Career	8	6	1	6	10
Undecided	1*	2	1*	1*	3*

Degrees of Freedom = 4

CHI-square = 1.8721

\*\* Pooled

\* Excludes 13 also classified as transfer.

Table 21. Contingency Data of Career vs. Undecided Students.

	Reason				
	1	2	3	4	5 **
Career	8	6	1	6	10
Undecided	7*	2	3*	2*	7*

Degrees of Freedom = 4

CHI-square = 3.8141

\*\* Pooled

\* Includes 13 also classified as transfer.

statistical purposes, Items 5 through 13 were pooled. When the CHI-square test was made on this hypothesis, it was noted that in both cases the calculated value was less than the tabular value of 9.49. Therefore, the null hypothesis was not rejected. This inferred that there was no significant difference in responses among those enrolled in career programs and those who were undecided as to major.

#### Findings Related to the Fifth Hypothesis

The fifth null hypothesis tested the significance in responses among those enrolled in career programs and the composite group was tested next. Table 22 displays this comparison. Again, Items 5 through 13 were pooled. The results indicated that when the calculated CHI-square was compared with the tabular value of 9.49, the null hypothesis was not rejected. This indicated that there was no significant difference in responses among those enrolled in career programs and the composite (total) group.

#### Findings Related to the Sixth Hypothesis

The final null hypothesis tested the significance in responses among those who were undecided as to major and the composite (total) group. Table 23 shows the comparison of these two groups excluding the 13 students classified as both transfer and undecided. In Table 24 these students were included. Items 5 through 13 were pooled as in some of the other tests. It was noted that when the CHI-square test was applied, in both cases the calculated value did not exceed the tabular value of 9.49. Therefore, the null hypothesis was not

Table 22. Contingency Data of Career vs. Composite Students.

	Reason				
	1	2	3	4	5 **
Career	8	6	1	6	10
Composite	30	15	11	11	41

Degrees of Freedom = 4  
 CHI-square = 3.7314  
 \*\* Pooled

Table 23. Contingency Data of Undecided vs. Composite Students.

	Reason				
	1	2	3	4	5 **
Undecided	1*	2	1*	1*	3*
Composite	30	15	11	11	41

Degrees of Freedom = 4  
 CHI-square = 1.3556  
 \*\* Pooled  
 \* Excludes 13 also classified as transfer.

Table 24. Contingency Data of Undecided vs. Composite Students.

	Reason				
	1	2	3	4	5 **
Undecided	7*	2	3*	2*	7*
Composite	30	15	11	11	41

Degrees of Freedom = 4  
 CHI-square = .8247  
 \*\* Pooled  
 \* Includes 13 also classified as transfer

rejected, indicating no significant difference in responses among those who were undecided as to major and the composite (total) group.

Thus, it can be seen that in applying the CHI-square test statistic, none of the six null hypotheses was rejected.

### Additional Findings

Student data sheets and information collected from the Registrar's Office and Student Personnel Services were reviewed. Table 25 presents characteristics of the students during the fall semester, 1972. Table 26 shows the distribution of the total sample by accumulated semester units prior to registration. Discounting the extreme figures and using a range of 3 through 58.5 units, the mean was 23.8 and the mid-range was 31.75. Nearly one-half of those interviewed at time of leaving were first-semester students. None of the total sampling was on academic probation at time of leaving.

As was pointed out in Chapter I, the investigator believed that the reasons reported by the students leaving were, in many cases, not necessarily the true or "real" reasons. It was suggested that beyond the surface (reported) problem there could be underlying or root causes. On the basis of the personal interviews, the following generalizations were made:

Table 25. Day Student Census, Fall Semester, 1972.

Registered, Fall 1972	8,080
Registered only *	580
Applied for a leave	845
Dropped	926
In sample	108

\* Never attended any classes

Table 26. Unit Distribution of Sampling.

0	1 - 15	16 - 30	31 - 45	46 - 60	More than 60
51	19	15	7	5	11

Range: 0.0 - 149

Mid-range: 74.5

## Levels of Students' Problems (Concern)

1. Surface problems
  - Not enough time
  - Not enough money
  - School boring
    - Not what desired
    - No interest
  - No goal
  - Poor instruction
  - Personal
    - Family and/or friends
2. Surface (underlying) causes
  - Feelings of inferiority
  - Insecurity
  - Worry
  - Frustration
  - Pride
  - Distrust
  - Rebellion
  - Lack of social acceptance
3. Root problems
  - Basic personality conflicts
  - Lack of/or poor self-image
  - Value system
  - Morality

As one of the secondary directions of this study, the investigator attempted to get below the superficial level of reason for taking a leave (withdrawal) through personal interview. At this level as reported on the form (see Appendix D), the standard reasons were given, i.e., work, finances, marriage, illness, moving, armed services, lack of interest, and others. The brief but important exit interview revealed information that delved below the surface to the underlying cause, but rarely went beyond it. The tapes of the exit interviews were reviewed several times. Abridged comments are found in Appendix K. Comments and suggestions given by students in the follow-up interviews are likewise shown in Appendix K. It was not the intent of the investigator to counsel students but rather to gather data.

As a result of these personal interviews, the following pertinent items are reported:

1. Most part-time or "special" students did not have a regular counselor and did not know to whom to go for help.
2. Nearly half of the students said they expected to return. This was similar to Orange Coast College (1960). Actually, only 28 percent registered for the spring semester, 1973. During the course of the follow-up interviews, a few indicated they hoped to re-enroll in the fall. Some had applied to four-year schools.
3. In the follow-up interviews, most students reported that their own reasons for leaving were similar to

those of others. (See Appendix J, Item 7)

4. Most students rated themselves high in the value of a college education.
5. When asked to rate themselves on maturity, most said they were slightly above average.
6. When asked to rate themselves on the quality of the decision they made in taking a leave, most students claimed that it was a relatively rational decision.
7. There was not enough personal attention. Students came from high school where they were "programmed" and freedom of choice was difficult for them when coming to college. The assumption that they knew where they were going was apparently fallacious. Some said they needed someone "who cares" to explain the various options to them.
8. Many students reported that some of the college staff gave the impression that students should be able to function on their own initiative without any help, i.e., students should be more responsible; they had been led around too long--it was time for them to be responsible for their own actions. However, students reported that they had been "conditioned" in high school to rely upon others. They believed there needs to be a transition period. It was too much to expect them to become immediately "self-reliant" or "adult."

It was the subjective judgment of the investigator, through comparing the exit and follow-up interviews, that 65 percent of the sample did in fact confirm their original reason for leaving.

### Summary

This chapter reviewed the findings of the six null hypotheses. The CHI-square test statistic with alpha = .05 level of confidence was used. In comparing groups, it was found that there was no significant difference in reasons for leaving. The major reasons included: full-time employment, health, finances, and personal problems. Lessor reasons included: poor grades or attitude, marriage, change in major, and not satisfied with classes.

Review of additional student data revealed: (1) none of the total sample was on academic probation and (2) nearly half were first-semester freshmen.

Finally, analyses of follow-up interview data suggest that the reasons for leaving were not necessarily the true or "real" reasons.

## CHAPTER V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Importance of the Study

The problem of student attrition has faced educators throughout the nation for many years. Major research on attrition has been at four-year institutions. Research at the community college level has been minimal.

The "open door" policy of the community college has brought about high dropout rates.

The College of San Mateo, from which the sampling was made, has experienced a high dropout rate. In order to deal realistically with the attrition problem, this study sought to identify the "real" reasons why students withdraw. It endeavored to determine if there were common factors that influenced students' decisions to terminate school. Special effort was made to search below the surface (reported) problem to find underlying causes.

### Procedures

The sampling of this study was taken during the fall semester, 1972. Day students only were interviewed as they applied for a leave of absence. This exit interview was given to determine reasons for leaving as well as to gather other data about these students. This was an initial attempt to keep in close contact with students who had taken a leave. One hundred and eight individual students were interviewed by the investigator. A follow-up contact was made with 54 of the original

group to offer assistance and inquire about their plans. This attempted to confirm their initial reason for leaving. Statistical comparisons were made between the three groups of students, namely: transfer, career, and undecided majors. The CHI-square statistic was employed at the  $\alpha = .05$  level of significance to test six null hypotheses. Additional information about the characteristics of the college as well as motivational factors and students' values were compiled.

### Summary of Findings

The purpose of this study was to determine if there were common factors influencing student decisions to terminate course work at the College of San Mateo. The findings revealed no significant differences in reasons for leaving given by the three groups: transfer, career, and undecided. Major reasons were:

1. Full-time employment
2. Health
3. Finances
4. Personal problems

The findings can be summarized in relation to several recent and relevant studies of Medsker (1960), Cowhig (1963), Demos (1968), Bossen (1968), and Wilson (1971). This study concurs with Medsker and Demos that full-time employment or getting a job was the primary reason. While Cowhig reported marriage first, getting a job was a close second. Wilson reported financial problems as the primary reason in comparison with this study which ranked it third. Several authors pointed out that it was often difficult to distinguish between full-time employment

and financial problems. Bossen and the investigator of this study pointed out a definite relationship existed between these two reasons. The present study found that personal and family illness ranked second. Medsker and Demos had similar findings. The military appeared to rank higher in four-year institutions than at community colleges. However, there appeared to be a reverse trend in the marriage category particularly females. Lack of interest or motivation and the work being too difficult appeared significant in most studies. The most difficult category to interpret was that of personal problems. Bossen reported findings similar to those of this study, i.e.: that it was apparent that more than a single reason existed for leaving, including personal, social, and academic factors. Only one student in this study stated that he "was just not college material." A significant number of students in this study as well as in that of Medsker and Demos revealed a work schedule conflict or moving. Wilson reported a comparison of counselors' and students' reasons for withdrawal. The current study suggests underlying causes as well as surface or reported reasons. Sixty-five percent of the sampling reinforced their original response.

The data suggest that there is a decided lack of identity as reported by many of the sampling. This lack of a sense of belonging or identification was pointed out very early by Matson (1955). This appeared counter to what Cohen (1969b) said, "The conscious search for meaning is evidently rare among the junior college student" (p. 71). Newman (1971) indicated that this breakdown could be due to the depersonalization in this technological society. One student in this study revealed concern over being ". . . powerless--loss of control of my own

destiny." Several students classified themselves as being "loners." Others revealed that they were dissatisfied with their social relationships. Still others said that they were poorly treated and that ". . . most people are not interested in my problem." None of the total sampling was on academic probation, and nearly half of them were first-semester freshmen.

### Conclusions

The findings of this study suggest that:

1. The major reasons for leaving community college were:
  - a. Full-time employment
  - b. Health
  - c. Finances
  - d. Personal problems
2. There was no significant difference in reasons given for leaving the community college by students from different programs.
3. Many selected community college students sense a lack of "identity" and fail to seek help in making decisions.
4. Lack of personal attention by the staff is a contributing factor to student attrition.
5. Insufficient information regarding various program options was an underlying reason for student attrition.
6. Stated reasons for leaving the community college are not necessarily the true or "real" reasons.

### Recommendations

The preliminary review of literature, the findings of this study, and the investigator's subsequent conclusions suggest the following for further investigation:

1. Additional research to ascertain a common terminology in "dropout" studies.
2. A replication of this study with a larger sampling, including all three colleges in the San Mateo Community College District, to be done with evening as well as day students.
3. Conduct an additional follow-up study of the students involved in this study at the end of the current (spring, 1973) semester and again one year later, (spring, 1974):
  - a. To determine if they returned to college, and for how long; and
  - b. To check validity of responses at the exit interview.
4. Cooperative research on attrition with the community college districts in the San Francisco Bay Area, e.g., consortiums to pool information and data and to plan approaches to this perennial problem.
5. The need for research to develop an adequate instrument for dealing with the subjective evaluation of personal interviews.

In addition, the following recommendations apply directly to the College of San Mateo:

1. Immediate planning to inaugurate in-service training for counselors conducting exit interviews.
2. All students, whether part- or full-time, to have access to a qualified counselor.
3. Development of programs for greater student/staff contact in order to lead to a greater sense of "belonging." (Extensive use of group and orientation activities should be employed, including peer advising. It is suggested that this be implemented one or two weeks prior to fall registration.)

## BIBLIOGRAPHY

- Advisory Council on Vocational Education. 1968. Vocational education: The bridge between man and his work. Notes and working papers concerning the administration of programs. Washington, D. C., U. S. Government Printing Office. p. 1-55.
- American Association of Junior Colleges. 1971. Directory. Washington, D. C., The Association.
- American College Testing Program, Inc. 1969. The two-year college and its student. Monograph Two. Iowa City. 157 p.
- American Council on Education. 1971. The American freshman: National norms for fall 1971. Washington, D. C., Staff of the Office of Research.
- Astin, Alexander W. 1972. The measured effects of higher education. The Annals 404:1-20. November, 1972.
- Astin, Alexander W. 1971. Predicting academic performance in college. New York, The Free Press. 299 p.
- Astin, Alexander W. 1965. Who goes where to college? Chicago, Science Research Associates. 125 p.
- Astin, Alexander W. 1964. Personal and environmental factors associated with college dropouts among high aptitude students. Journal of Educational Psychology 55:219-227.
- Baird, Leonard L., James M. Richards, Jr., and Linda R. Shevel. 1969. A description of graduates of two-year colleges. Iowa City, The American College Testing Program. 25 p.
- Berger, A. 1963. The unexpected findings: A study of the expectations of college students. Unpublished manuscript. Chicago, National Opinion Research Center. n.p.
- Blai, Boris, Jr. 1972. Two-year college dropouts--Why do they leave? Who are they? How many? Bryn Mawr, Pennsylvania, Harcum Junior College. 21 p. (Educational Resources Information Center no. ED 058879) (Microfiche)
- Blai, Boris, Jr. 1969. Characteristics of Harcum Junior College students. Bryn Mawr, Pennsylvania, Harcum Junior College. 13 p. (Educational Resources Information Center no. ED 034521) (Microfiche)

- Blocker, Clyde E., Robert H. Plummer, and Richard C. Richardson, Jr. 1965. The two-year college: A social synthesis. Englewood Cliffs, Prentice-Hall. 298 p.
- Bogue, Jesse. 1950. The community college. New York, McGraw-Hill. 390 p.
- Bossen, Doris S. 1968. A follow-up study of the junior college withdrawal student. Unpublished doctoral dissertation. The Ohio State University. Dissertation Abstracts, 29, No. 5, 1418 p.
- Bossen, Doris S. and Collins W. Burnett. 1970. What happens to the withdrawal student. Junior College Journal 40:9, 30-32, 34, 36. June-July, 1970.
- California State Coordinating Council for Higher Education. 1969. The undergraduate student and his higher education: Policies of California colleges and universities in the next decade. California, California Coordinating Council for Higher Education. 121 p. (Educational Resources Information Center no. ED 032836) (Microfiche)
- Carneige Commission on Higher Education. 1971. Less time, more options: Education beyond the high school. A special report. New York, McGraw-Hill. January, 1971. 45 p.
- Clark, Burton. 1960. The open door college. New York, McGraw-Hill. 207 p.
- Clinkscales, Kyle. 1971. Freshmen of undecided major: A two-year study at the College of San Mateo. San Mateo, California. 46 p.
- Cohen, Arthur M. 1969a. The relationships among student characteristics, changed instructional practices and student attrition in junior college. Final report. Washington, D. C., Office of Education, Bureau of Research. 93 p. (Educational Resources Information Center no. ED 032074) (Microfiche)
- Cohen, Arthur M. 1969 b. Dateline '79. Beverly Hills, Glencoe. 234 p.
- Cohen, Arthur M. and Florence B. Brawer. 1970. Student characteristics: Personality and dropout propensity. Washington, D. C., American Association of Junior Colleges. 66 p.
- Cohen, Arthur M. and Edgar A. Quimby. 1970. Trends in the study of junior colleges: 1970. Washington, D. C., American Association of Junior Colleges. 16 p. (Educational Resources Information Center no. ED 040711) (Microfiche)
- Combs, Arthur W., Donald L. Avila, and William W. Purkey. 1971.

- Helping relationships: Basic concepts for the helping professions. Boston, Allyn & Bacon. 360 p.
- Cooper, W. J. 1928. The junior college movement in California. School Review 36:409-22. June, 1928.
- Cowhig, J. D. 1963. Why do they leave college? School Review 71:330-336. Autumn, 1963.
- Cross, K. Patricia. 1970. Occupationally oriented students. Washington, D. C., American Association of Junior Colleges. 4 p.
- Cross, K. Patricia. 1968. The junior college student: A research description. Princeton, Educational Testing Service. 56 p.
- Dalrymple, W. 1967. College dropout phenomenon: Fact, theories, and programs. National Education Association Journal 56:11-13. April, 1967.
- Davis, Billy Hampton. 1970. The community junior college experience as perceived by students who have withdrawn. Dissertation Abstracts, 31, No. 11, p. 5659A.
- Demos, G. D. 1968. Analysis of college dropouts: Some manifest and covert reasons. American Personnel and Guidance Association 46:681-684. March, 1968.
- Dennison, John D. and Gordon Jones. 1970. A long range study of the subsequent performance and degree attainment of students who transferred from Vancouver City College to the University of British Columbia from 1966-1969. British Columbia, Vancouver City College. 49 p. (Educational Resources Information Center no. ED 037217) (Microfiche)
- Deukmejian, George. 1968. The role of industrial education in solving today's crises in American society. The Sam L. Fick lecture on industrial education, March 8, 1968. 11 p.
- Dewey, John. 1938. Experience and education. New York, MacMillan. 116 p.
- Eels, Walter C. 1931. The junior college. Cambridge, The Riverside Press. 833 p.
- Feldman, Kenneth A. and Theodore M. Newcomb. 1969. The impact of college on students. 2 vols. San Francisco, Jossey-Bass. 453 p.
- Fields, Ralph. 1962. The community college movement. New York, McGraw-Hill. 359 p.

- Flanagan et al. 1964. The American high school student final report. 13 chapters. University of Pittsburgh.
- Ford, David H. and H. G. Urban. 1966. College dropouts: Successes or failures? In: The college dropout and the utilization of talent. Pervin, Reik, and Dalrymple (eds.). Princeton University Press. p. 83-110.
- Garner, W. C. 1970. Crisis intervention techniques with potential college dropouts. American Personnel and Guidance Association 48:552-560. March, 1970.
- Garrison, Roger H. 1967. Junior college faculty: Issues and problems. Washington, D. C., American Association of Junior Colleges. 90 p.
- Gleazer, Edmund J., Jr. 1970. American Association of Junior Colleges approach. Junior College Journal 40:7, 3-5. April, 1970.
- Gleazer, Edmund J., Jr. 1968. This is the community college. Boston, Houghton Mifflin. 151 p.
- Gold, Ben K. 1971. Los Angeles City College fall 1967 entrants--four years later. Mimeo research study #71-11 (summary). Los Angeles, California, Office of Research, Los Angeles City College. October, 1971. 1 p.
- Goldman, Leo. 1969. Privilege or privacy. American Personnel and Guidance Association Journal 48:88. October, 1969.
- Gothard, William. 1960. Basic youth conflicts. Illinois, Institute in Basic Youth Conflicts. Unpublished syllabus. Unnumbered.
- Greive, Donald D. 1970. A study of student attrition: Part I. Cleveland, Cuyahoga Community College. 34 p. (Educational Resources Information Center no. ED 038976) (Microfiche)
- Gum, H. Sanford, Jr. 1971. History and development of the community/junior college movement in California: Insight to the future. Oregon State University. July, 1971. 16 numb. leaves.
- Hakanson, J. W. 1967. Selected characteristics, socioeconomic status, and levels of attainment of students in public junior college occupational-centered education. Unpublished doctoral dissertation. Berkeley, University of California. 47 p. (Educational Resources Information Center no. ED 013644) (Microfiche)
- Harlacher, Ervin L. 1969. The community dimension of the community college. Englewood Cliffs, Prentice-Hall. 140 p.
- Heinkel, Otto A. 1970. Evaluation of a general studies program for the potentially low academic achiever in California junior

- colleges. Final report. Washington, D. C., Office of Education, Bureau of Research. 75 p. (Educational Resources Information Center no. ED 039881) (Microfiche)
- Heist, Paul. 1968. Creative students: College transients. In: The creative college student: An unmet challenge. Heist (ed.) San Francisco, Jossey-Bass. 253 p.
- Hurlburt, Allan S. 1969. State master plans for community colleges. Washington, D. C., American Association for Junior Colleges. 46 p. (Educational Resources Information Center no. ED 032887) (Microfiche)
- Huther, John W. 1971. The open door: How open is it? Junior College Journal 41:8, 24-27. April, 1971.
- Iffert, Robert E. 1964. Institutional implications--facilities, faculties, students. Paper presented at the Princeton University conference, October, 1964.
- Iffert, Robert E. 1957. Retention and withdrawal of college students. Washington, D. C., U. S. Government Printing Office. (U. S. Department of Health, Education, and Welfare, Bulletin, 1958, No. 1) n.p.
- Jabay, Earl. 1967. Search for identity. Michigan, Zondernan. 150 p.
- Jay, Bill. 1962. Development of a multiple regression equation to predict student drop rate and change to other major rate - the difficulties and the possibilities: Research study. Moorpark, California, Moorpark College. 25 p.
- Johnson, Lamar. 1969. Islands of innovation expanding: Changes in the community colleges. Beverly Hills, Glencoe. 352 p.
- Johnson, Lamar. 1965. State junior colleges. How can they function effectively? Southern Regional Education Board. 32 p.
- Jones, Gordon and John D. Dennison. 1972. A comparative study of persister and non-persister college students. British Columbia, Vancouver City College. 100 p. (Educational Resources Information Center no. 062975) (Microfiche)
- Kelley, Jacquelyn. 1970. College of San Mateo dropout follow-up study. Unpublished mimeographed research report #6. San Mateo, California, College of San Mateo, Office of Research. p. 7-10.
- Kester, Donald L. 1972. Further validation of the NORCAL questionnaire: Secondary validation. January, 1972. 21 p. (Educational Resources Information Center no. ED 062965) (Microfiche)

- Kester, Donald L. 1971a. The lesson from the three-year NORCAL attrition study. Many of the potential dropouts can be helped. Phase III. Final report. 200 p. (Educational Resources Information Center no. ED 057779) (Microfiche)
- Kester, Donald L. 1971b. California community college stopouts: A comparison for the three NORCAL-CCHE follow-up studies. Washington, D. C., Office of Education. 49 p. (Educational Resources Information Center no. ED 057771) (Microfiche)
- Kester, Donald L. 1970. NORCAL--an impressive achievement: A review. San Diego, California Junior College Association. 11 p. (Educational Resources Information Center no. ED 044111) (Microfiche)
- Knoell, Dorothy M. 1966. A critical review of research on the college dropout. In: The college dropout and the utilization of talent. L. A. Pervin, C. E. Reik, and W. Dalrymple (eds.). Princeton University Press. 260 p.
- Knoell, Dorothy M. 1960. Institutional research on retention and withdrawal. In: Research on college students. Sprague (ed.) Boulder, Western Interstate Commission for Higher Education. p. 41-65.
- Knoell, Dorothy M. and Leland L. Medsker. 1964. Factors affecting performance of transfer students from two-to-four year colleges: With implications for coordination. Berkeley, University of California, Center for Research and Development in Higher Education. 193 p. (U. S. Office of Education Cooperative Research Project No. 1133)
- Koos, Leonard V. 1925. The junior college movement. Boston, Ginn. 436 p.
- Kubie, L. S. 1966. The ontogeny of the dropout problem. In: The college dropout and the utilization of talent. Pervin, Reik, and Dalrymple (eds.) Princeton University Press. p. 23-35.
- Lichter, Solomon O. et al. 1962. The drop-outs. New York, Glencoe. 302 p.
- Lopate, Carol. 1969. The college readiness program: A program for third world students at the College of San Mateo, California. The study of collegiate compensatory programs for minority group youth. New York, Columbia University. 36 p. (Educational Resources Information Center no. ED 035686) (Microfiche)
- Losak, John. 1971. Do remedial programs really work? New York, American Educational Research Association. 14 p. (Educational Resources Information Center no. ED 946975) (Microfiche)

- MacMillan, Thomas F. 1970a. NORCAL: The key is cooperation. Junior College Journal 40:8, 28-31. May, 1970.
- MacMillan, Thomas F. 1970b. NORCAL project: Phase II, final report. 51 p. (Educational Resources Information Center no. 039879) (Microfiche)
- MacMillan, Thomas F. 1969a. Establishing a predictive model for early recognition of potential community college student attrition. Dissertation Abstracts, 30, No. 10. p. 4226A.
- MacMillan, Thomas F. 1969b. NORCAL project: Phase I, final report. 127 p. (Educational Resources Information Center no. ED 031240) (Microfiche)
- Macomb County Community College. 1968. Improvement of persistence to remain in school by potential dropouts of community college students through the evaluation of a general education program. Final report. Warren, Michigan, Macomb County Community College. 327 p. (Educational Resources Information Center no. ED 031158) (Microfiche)
- Maier, Robert O. 1971. Some variations in probabilities of success, failure, and dropout. El Camino, California, El Camino College. 26 p. (Educational Resources Information Center no. ED 050720) (Microfiche)
- Marsh, Lee M. 1966. College dropouts--a review. Personnel and Guidance Journal 44:8. p. 475-481.
- Mason, Ralph E. and Peter G. Haines. 1965. Cooperative occupational education and work experience in the curriculum. Danville, Illinois, The Interstate Printers and Publishers, Inc. 525 p.
- Matson, Jane E. 1955. Characteristics of students who withdraw from a public junior college. Unpublished doctoral dissertation. Stanford, California, Stanford University. 102 numb. leaves.
- McClure, Clois A. 1972. The development of a counselor's guide for use in selecting placement of students in a drafting technology program. Unpublished doctoral dissertation. Logan, Utah State University. 145 numb. leaves.
- McGrath, Earl J. (ed.) 1966. Needed changes in purposes and programs of community colleges. In: Universal higher education. New York, McGraw-Hill. 258 p.
- McKeown, William H. 1972. A follow through study. Redwood City, California, Canada College. 51 numb. leaves.
- Medsker, Leland L. and Dale Tillery. 1971. Breaking the access

- barriers. New York, McGraw-Hill. 183 p.
- Medsker, Leland L. 1969. Community college education. In: Encyclopedia of educational research, by Robert L. Ebel, 4th ed. New York, MacMillan Co., p. 173-184.
- Medsker, Leland L. and James W. Trent. 1965. The influence of different types of public higher institutions on college attendance from varying socioeconomic and ability levels. Berkeley, University of California, Center for the Study of Higher Education. n.p.
- Medsker, Leland L. 1960. The junior college. Progress and prospect. New York, McGraw-Hill. 367 p.
- Mertes, Barbara. 1972. A comparative study of students with reoccurring drop-out patterns for 1970-71 and 1971-72. Hayward, California, Chabot College. 11 p.
- Mertes, David H. 1972. President, College of San Mateo. Letter to the faculty at CSM. San Mateo, California. August 15, 1972.
- Meyer, John D. 1968. Junior college students: Status inconsistency. Unpublished doctoral dissertation. Stanford, California, Stanford University. 105 numb. leaves.
- Miami-Dade Junior College. 1969. Career college: A report of the first year (August 1968-June 1969). Florida, Miami-Dade Junior College. 122 p. (Educational Resources Information Center no. ED 038119) (Microfiche)
- Mohs, Milton C. 1962. Service through placement in the junior college. Washington, D. C., American Association of Junior Colleges. 102 p.
- Montgomery, James and John Hills. 1966. Programs and selected publications related to college dropouts. In: The college dropout and the utilization of talent. L. A. Pervin, C. E. Reik, and W. Dalrymple (eds.) Princeton University Press. 260 p.
- Moze, Elliott. 1964. Withdrawal survey: Freshman class of 1962. Aptos, California, Cabrillo College. 3 p.
- National Science Foundation. 1967. The junior college and education in the sciences. A report to subcommittee on Science Research and Development of the Committee on Astronautics. U. S. House of Representatives, 90th Congress, Session I. Washington, D. C., U. S. Government Printing Office. n.p.
- Newman, Frank et al. 1971. Report on higher education. Washington, D. C., U. S. Government Printing Office. 130 p.

- O'Connell, Thomas E. 1968. Community colleges: A president's view. Urbana, University of Illinois Press. 172 p.
- O'Connor, T. J. 1965. Follow-up studies in junior colleges. Washington, D. C., American Association of Junior Colleges. 75 p.
- Orange Coast College. 1969. They didn't come back. Costa Mesa, California, Orange Coast College. 22 p. (Educational Resources Information Center no. 038969) (Microfiche)
- Pace, C. Robert. 1962. Implications of differences in campus atmosphere. In: Personality factors on the college campus. R. L. Sutherland (ed.). Austin, The Hogg Foundation for Mental Health. 242 p.
- Panos, Robert and Alexander W. Astin. 1968. Attrition among college students. American Educational Research Journal 5:57-72. January, 1968.
- Pearce, Frank C. 1969. A profile of students in the college readiness program at the College of San Mateo. San Mateo, California, College of San Mateo. (Ditto) 1 p.
- Pennsylvania State Department of Education. 1971. Academically disadvantaged minority group students in public two-year colleges. Harrisburg, Pennsylvania, State Department of Education, Bureau of Curriculum Development. 24 p. (Educational Resources Information Center no. ED 957775) (Microfiche)
- Personnel and Guidance Journal. 1971. 59:85. October, 1971.
- Pervin, Lawrence A., Louis E. Reik, and Willard Dalrymple (eds.) 1966. The college dropout and the utilization of talent. New Jersey, Princeton University Press. 260 p.
- Postman, Neil and Charles Weingartner. 1969. Teaching as a subversive activity. New York, Delacorte Press. 219 p.
- Public Junior College. 1956. In: National Society for the Study of Education. Chicago, The Society.
- Purser, Timothy D. 1970. A study on the abolishment of academic dismissal and failing grades. Cleveland, Cuyahoga Community College. 29 p. (Educational Resources Information Center no. ED 044109)
- Reik, Louis E. 1962. The dropout problem. The Nation, May 19, 1962. p. 442-446.
- Reynolds, James W. 1966. Needed changes in purposes and programs of community colleges. In: Universal higher education, ed. by Earl J. McGrath. New York, McGraw-Hill. 258 p.

- Rhodes, Harvey B. 1968. Retraining the undereducated adult: The development and implementation of a retraining program for undereducated and unemployed adults by a community college. Dissertation Abstracts, 30, No. 1, p. 542A.
- Rice, Gary A. 1969. An examination of the earned grade distributions between "successful" and "dropout" students at Yakima Valley College. Yakima, Washington, Yakima Valley College. 86 p. (Educational Resources Information Center no. ED 036293) (Microfiche)
- Rice, Gary A. and William Scofield. 1969. A contrast between the "successful" and "dropout" student at Yakima Valley College. Yakima, Washington, Yakima Valley College. 128 p. (Educational Resources Information Center no. 030416) (Microfiche)
- Richards, James M., Jr., and Larry A. Braskamp. 1967. Who goes where to junior college? American College Testing Program, Report No. 20. Iowa City. 29 p.
- Rosenthal, Robert and Lenore Jacobsen. 1968. Pygmalion in the classroom. Holt. 240 p.
- Roueche, John E. and John R. Boggs. 1968. Junior college institutional research: State of the art. Washington, D. C., American Association of Junior Colleges. 66 p.
- Sanford, Nevitt. 1967. Where colleges fail. San Francisco, Jossey-Bass. 229 p.
- Schwebel, Milton. 1972. Pluralism and diversity in American higher education. The Annals 404:88-100. November, 1972.
- Seitz, James E. 1967-1968. Technical education in the small community college. Technical Education Yearbook. Ann Arbor, Prakken Publications. 210 p.
- Smith, Leonard J. 1959. Career planning. New York, Harper. 263 p.
- Snyder, Fred A. and Clyde E. Blocker. 1970. A profile of non-persisting students. Research report no. 3. Harrisburg, Pennsylvania, Harrisburg Area Community College. 67 p. (Educational Resources Information Center no. ED 03748) (Microfiche)
- Steel, Robert G. D. and James H. Torrie. 1960. Principles and procedures of statistics. New York, McGraw-Hill. 481 p.
- Stocking, Joyce. 1969. Non-persisting and persisting transfer program students. Columbia, Missouri, University of Missouri. 10 p. (Educational Resources Information Center no. ED 044114) (Microfiche)

- Summerskill, J. 1962. Dropouts from college. In: The American college, by N. Sanford (ed.). New York, Wiley. p. 627-657.
- Super, Donald E. 1957. The psychology of careers. New York, Harper. 362 p.
- The Third Annual Survey of Counselors and Counselees in California. 1968. Fall semester, 1968. Coordinated by J. H. Girdner, Dean of Student Personnel. Campbell, California, West Valley Joint College District.
- Thistlewaite, D. L. 1960. College press and change in study plans of talented students. Journal of Educational Psychology 55:222-234.
- Thornton, James W. 1966. The community junior college. New York, Wiley. 300 p.
- Tickton, Sidney G. 1968. The magnitude of American higher education in 1980. In: Campus 1980, Alvin C. Eurich (ed.). New York, Delacorte. 327 p.
- Tillery, Dale. 1965. A consideration of issues affecting California public junior colleges. Sacramento, California, Coordinating Council for Higher Education. No. 1018, April, 1965. n.p.
- Tillery, Dale. 1964. Differential characteristics of entering freshmen at the University of California and their peers at California junior colleges. Dissertation Abstracts, 25, No. 7. p. 3921.
- Total Report of School Leavers, School Years 1959-1960 and 1960-1961. 1962. Los Angeles, California, Office of Los Angeles County Superintendent of Schools. n. p.
- Trent, James W. and Leland L. Medsker. 1968. Beyond high school. San Francisco, Jossey-Bass. 333 p.
- Turner, Hugh J., Jr. 1970. The half that leaves: A limited survey of attrition in community colleges. Gainesville, Florida, Florida University. 18 p. (Educational Resources Information Center no. ED 038127) (Microfiche)
- Venn, Grant. 1964. Man, education, and work. Washington, D. C., American Council on Education. 184 p.
- Ward, Darrell Lin. 1970. Vocational education competencies identified for local leaders of occupational education. Unpublished doctoral thesis. Corvallis, Oregon State University. 105 numb. leaves.
- Ware, Claude and Ben K. Gold. 1970. Los Angeles City College, peer counseling program. Los Angeles, California, Los Angeles City

- College. 77 p. (Educational Resources Information Center no. ED 040713) (Microfiche)
- Warren, J. R. 1966. Patterns of college experience. Claremont, California, College Student Personnel Institute and Claremont Graduate School and University Center. (U. S. Office of Education Cooperative Research Project S-327.) n. p.
- Weigel, Mark. 1969. A comparison of persisters and non-persisters in a junior college. Columbia, Missouri, University of Missouri. 24 p. (Educational Resources Information Center no. ED 044115) (Microfiche)
- Wenrich, J. William. 1971. Keeping dropouts in. A report submitted to Department of Health, Education, and Welfare. San Mateo, California, College of San Mateo.
- Wenrich, J. William. 1969. NORCAL individual campus report: College of San Mateo. San Mateo, California, College of San Mateo, Office of Research. 14 p.
- Whitehead, Alfred North. 1929. The aims of education and other essays. New York, MacMillan. 247 p.
- Wilson, Melvin D. 1971. A study of community college dropouts. Master's thesis. Corvallis, Oregon State University. 46 numb. leaves.
- Wollenberg, Charles. 1972. Community college curriculum. Community College Perspective 3:1. September/October, 1972.

## APPENDICES

## APPENDIX A

## EXIT INTERVIEW QUESTIONS

INTRODUCTORY REMARKS

We are conducting a study at CSM that hopefully will result in better services to you, the student. We invite you to be a part of this study. You can help us by sharing some information and ideas, and with your permission, recognize your participation by listing your name at the end of the report. Be assured information you share will be kept in strict confidence.

I would also appreciate your permission to record this interview to assure accuracy in your remarks. Your name will not be used, only an identification number.

Questions

1. Is this your first semester at CSM? \_\_\_\_\_
2. How many units have you been taking this semester? \_\_\_\_\_  
12 or more \_\_\_\_\_, less than 12 \_\_\_\_\_
3. If attended college previously, how many total units do you have?  
\_\_\_\_\_
4. Are you living at home? \_\_\_\_\_ If not, how long have you  
been gone? \_\_\_\_\_ Whom do you live with now? \_\_\_\_\_
5. What influenced you to attend CSM initially? \_\_\_\_\_  
\_\_\_\_\_
6. You gave the reason for your leave on the form as \_\_\_\_\_  
\_\_\_\_\_

## APPENDIX A (continued)

- What other information could you give me about that? \_\_\_\_\_  
 \_\_\_\_\_
7. What events or factors would you say led you to make the decision of taking leave from CSM? \_\_\_\_\_
- \*8. When did you first think about dropping out of college? \_\_\_\_\_  
 \_\_\_\_\_
- \*9. Whom did you talk to about leaving? \_\_\_\_\_  
 Your counselor? \_\_\_\_\_
10. What are your plans (goals)? \_\_\_\_\_
11. How do you intend to achieve your plans? \_\_\_\_\_  
 \_\_\_\_\_
12. How has CSM helped you? \_\_\_\_\_
13. How can CSM assist you now? \_\_\_\_\_
14. What else would you be willing to share about your experience here at CSM? \_\_\_\_\_
15. How can we at CSM be of more assistance to students? \_\_\_\_\_  
 \_\_\_\_\_

(End interview by telling student that,)

"We are anticipating a follow-up interview in January to express our interest in you and your plans and offer our assistance. May we contact you at this address or some other? \_\_\_\_\_

Telephone \_\_\_\_\_

Express appreciation for time and help.

\* Added after first week of interviews

## APPENDIX B

## INTERVIEW SCHEDULE

INTERVIEW SCHEDULERELATED DATES

- |  |  |
|--|--|
| <p>1. October 9-13 &amp; 16-20<br/>(5th &amp; 6th WEEKS OF SCHOOL)</p> <p>October 23-27 - 7th WEEK</p> <p>October 30-November 3 - 8th WEEK</p> | <p>October 30-November 3<br/>8th Week (Midterm Week)</p> <p>November 2 - Coun.<br/>Coor. Comm.</p> |
| <p>2. November 13-17<br/>(10th WEEK OF SCHOOL)</p> <p>November 27-December 1<br/>(12th WEEK OF SCHOOL)</p>                                     | <p>November 17 - Last day<br/>to drop W/O penalty</p>  |
| <p>3. January 2-5, 1973<br/>(15th WEEK OF SCHOOL)</p> <p>January 8-12<br/>(16th WEEK OF SCHOOL)</p>  | <p>January 26 - End of<br/>Fall Semester</p>   |
| <p>4. February 4-March 1, 1973<br/>(Follow-up interviews)</p>  | <p>February 5 - Beginning of<br/>Spring Semester</p>   |

CHECKOUT PROCEDURE

Same as past year except I will interview students following the initial contact with their counselor. Sent from Student Personnel Office or Dean of Women (Ruth Weston).

## APPENDIX C

## SAMPLE OF ANNOUNCEMENTS

(From CSM Student Bulletin)

Tuesday, October 10, 1972: IMPORTANT: LEAVE OF ABSENCE STUDY. You can be an important part of this study. We are trying to do a better job for you, the student. If you are considering dropping out of school, check with your counselor and take out a formal "Leave of Absence."

Monday, October 16, 1972: DON'T BE ANOTHER STATISTIC! WE CARE ABOUT YOU! LET US HELP YOU--YOU CAN HELP US TOO. IF YOU HAVE TO LEAVE SCHOOL (DROP OUT) FOR ANY REASON, CHECK WITH YOUR COUNSELOR FIRST.

Thursday, October 19, 1972: DON'T DO IT! DON'T JUST FADE AWAY. TAKE A LEAVE OF ABSENCE IF YOU MUST LEAVE. DON'T BE A DROPOUT! SEE YOUR COUNSELOR!

Tuesday, October 24, 1972: "TO STAY OR NOT TO STAY" (in school)--that is the question. See your counselor before dropping out.

Tuesday, November 14, 1972: MID-TERM GRADES ARE NOT REALLY THAT BAD! DON'T DROP OUT! SEE YOUR COUNSELOR!

(Sample Poster)

DON'T BE A DROPOUT!

... DON'T JUST FADE AWAY

... DO SEE YOUR COUNSELOR

or check at the Student Personnel Office

... TAKE OUT A LEAVE OF ABSENCE IF YOU HAVE  
TO LEAVE (DROP) FOR ANY REASON

## APPENDIX D

## WITHDRAWAL PROCEDURE AND FORM

Withdrawal Procedure

Please fill in all information on the "Application for Permanent Leave of Absence" form, then obtain the following signatures:

1. Counselor
2. Library - Circulation Desk
3. Lab instructor (if enrolled in laboratory course in chemistry or physics)
4. Bookstore - Student Center
5. Student Finance Office - Admin. Bldg., Rm. 151
6. Physical Education instructor
- \* 7. Student Personnel - Admin. Bldg. 2nd floor
8. Veterans - Admin. Bldg. Registrar's Office
9. Financial Aid - Admin. Bldg., Rm. 221
- \* 10. Dean of Women (ALL students) - Admin. Bldg., Rm. 215  
(Also, please be sure to turn in your Student I.D. card at this point.)

Only upon completion of the above will your leave become official.

\* Exit interview following either of these.

APPENDIX D (continued)

Application for Permanent Leave of Absence

Paper Pat'd by NCR CO.  
Speediset © Moore Business Forms, Inc.-s

Birth Date \_\_\_\_\_

Male \_\_\_\_\_ Female \_\_\_\_\_

Social Security No. \_\_\_\_\_

COLLEGE OF SAN MATEO  
APPLICATION FOR PERMANENT LEAVE OF ABSENCE  
"Honorable Dismissal"

\_\_\_\_\_ Date Last Attended

\_\_\_\_\_ Date Leave Requested

Please Print

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
Last Name First Name Middle Name Address Number and Street City

request a Leave of Absence for the remainder of this semester for the following reasons:

CLEARANCE CERTIFICATE	
Department	Signature
Library	_____
Laboratory Science	_____
Associated Students Store	_____
Student Personnel	_____
Physical Education	_____
Veterans	_____
Financial Aids	_____

Signature of student: \_\_\_\_\_

Signature of Counselor \_\_\_\_\_

\_\_\_\_\_ Date Leave Completed

Signature of Dean: \_\_\_\_\_ Withdrawal I -- Student will receive "W" in all classes.

Dean: \_\_\_\_\_ Withdrawal II -- Student will receive "W's" in classes in which he is passing- and "F's" in classes in which he is failing.

Dean: \_\_\_\_\_ Withdrawal III -- Student will receive "F's" in all classes.



## APPENDIX F

MEMORANDUM FROM SANDY GUM

COLLEGE OF SAN MATEO

MEMORANDUM

TO: All Counselors

DATE: October 2, 1972

FROM: Sandy Gum

In an effort to better serve the students in our community, I have proposed an analytical study endeavoring to determine factors which tend to influence students' decisions of departure and termination of their course work at CSM. This study in no way pre-empts the role of the counselor. The suggested procedure is similar to the normal withdrawal (checkout) procedure, except that, in an effort to gather objective data, I will interview the students after they have met with their assigned counselors. It is further proposed that a follow-up interview will take place within 30-45 days after the initial interview.

I anticipate that we will receive feedback from these students that will be of predictive value: value in counseling and advising, recommendations in reference to curricular patterns, as well as suggested improvements in student personnel services.

I believe the counselor is the key person in student personnel services. Your help will greatly affect the success of this study by encouraging students to complete the formal withdrawal (checkout) procedure.

This study will be conducted during the fifth and sixth weeks of the fall semester, October 9-20, the ninth and tenth weeks, November 6-17, and the fifteenth week, January 2-5, 1973. I will be available for interviewing in the Administration Building, Room 261, from 8:00 A.M. to 5:00 P.M. and evenings by appointment, except for my regular teaching hours (Monday-Wednesday-Friday, 10:00 A.M. to 12:00 Noon). Follow-up interviews are scheduled during the period of January 17 through February 1, 1973.

Suggestions are welcomed and encouraged. Please call Extension 6274. Thank you for your assistance.

SG:jvd

## APPENDIX G

## MEMORANDUM TO COUNSELORS

## MEMO

TO: Counselors

FROM: Sandy Gum

In order to cross-check on students obtaining a Leave of Absence Form, would you please log each student's name on the enclosed sheet(s) for the next two weeks, beginning Monday, October 9th.

Please put your counselor number only on the sheet(s) and any remarks you deem appropriate and return to me at the end of the day on Friday, October 20th.

Much thanks!

## MEMO

TO: Counselors

FROM: Sandy Gum

In order to cross-check on students obtaining a Leave of Absence Form, would you please log each student's name on the enclosed sheet(s), beginning Monday, November 13th thru Monday, November 20th.

Please put your counselor number only on the sheet(s) and any remarks you deem appropriate and return to me at the end of the day on Monday November 20th. Much thanks!

## APPENDIX H

## COUNSELOR'S LOG

## "LEAVE OF ABSENCE" STUDY

FALL SEMESTER, 1972

COUNSELOR  
NO. \_\_\_\_\_

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NO.	NAME OF STUDENT	DATE OF LEAVE	REMARKS
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## APPENDIX I

## STUDENT DATA SHEET

COLLEGE OF SAN MATEO

DATE 05-24-72

FIELD	DATA	MISSING CARD
SOCIAL SECURITY NUMBER		A03-11
DISTRICT CODE	SOURCE TYP	A35-41
CAMPUS CODE	SEX	A42-43
MARITAL STATUS		A 44
COLLEGE DIVISION		A 45
LOCAL ADDRESS		B15-34
LOCAL ADDRESS		B35-53
LOCAL TELEPHONE		B59-65
MOVING		B 66
SECURITY CODE		B 67
LEGAL ADDRESS		C15-34
LEGAL ADDRESS		C35-58
BIRTH DATE		D15-20
CITIZENSHIP CODE		D 21
FOREIGN COUNTRY CODE	RACE	D22-25
FEDERAL HOUSING PL-874		D 26
CLASS STATUS		D 27
HIGH SCHOOL GRADUATION DATE	H S CODE	D28-39
ADVISOR	MAJOR	D40-44
PROBATIONARY STATUS	DATE	E15-21
SOCIAL SECURITY CLAIM NUMBER		E22-32
CUMULATIVE UNITS ATTEMPTED	EARNED	E45-54
GRADE-POINTS	EARNED	E55-59
GPA	DEFICIENCY	E60-67
VETERANS ATTEMPTED UNITS	DEFICIENCY	E68-71
HEALTH-FEE PAID		E 72
OLD NAME		F15-17
MATRICULATION DATE		F18-23
HIGH SCHOOL GPA		F24-26
COLLEGE READINESS		F 27
HIGH ACHIEVEMENT	ORANGE DOT	F28-29
POSSIBLE GRADUATION		F 30
LAST ATTENDED TERM	YEAR	F33-35
DRAFT GRADUATION DATE		F36-41
DRAFT NOTIFICATION		F 42
SELECTIVE SERVICE NUMBER		F43-53
DRAFT CLASSIFICATION		F54-56
VETERAN CLAIM NUMBER	VETERAN	F57-65
PRINT CODE MISSING INFORMATION		F 66

## APPENDIX I (continued)

ATHLETIC CHECK			F	67
ELIGIBILITY CARD			F	68
NEW APPLICATION CODE			F	69
REGISTRATION CODE			F	70
LAST COLLEGE DIVISION			F	71
RETURN STATUS ELIGIBILITY			F	72
OUTSTANDING BILL			F	73
SOCIAL SECURITY CLAIM CODE			F	74
STUDENT FINANCIAL AID PROGRAM			F	75
PRINT CODE	PERM REC	ADV REC		F76-77
LAST SUMMER SEMESTER ATTENDED				F78-79
PREVIOUS COLLEGE CODE				G15-20
TRANSFER UNITS	ATTEMPTED	EARNED		G21-30
	GRADE POINTS	EARNED		G31-35
MICROFILM UNITS	ATTEMPTED	EARNED		G36-45
	GRADE POINTS	EARNED		G46-50



## APPENDIX J (continued)

15. If you were to rate yourself as to the quality of your decision to take a leave, again, on a scale of 1 to 9 with 9 being rational (high) and 1 being irrational (low), how would you rate yourself.
16. When we talked last time, I asked for any suggestions for any improvements or how we could do a better job in helping students. What additional comments can you give me?
17. Concluding remarks: I want to thank you for participating in this study. Again, I want to assure you that any information as to your identity will be strictly confidential. Any reference or quotes will be identified only by a number. If I can be of any further assistance, my office is in the aeronautics building, number 25, in room 172, and the phone number is 574-6274. Please feel free to contact me for any reason.

## APPENDIX K

## STUDENTS' COMMENTS AND SUGGESTIONS

Comments

"You're (C.S.M.) doing a good job, you know; the counselors are always available. I don't think there is much more that you can possibly do. If you need help, there is always someone like Financial Aids, or even a psychiatrist. There's always someone to talk to."

"You should have fulltime counselors that are available; I mean, my counselor was okay, if you are in his field, but for other questions, it would be good if they were available to talk to at any time. Our counselors teach and are not always available; you know what I mean?"

"I've had no hassles in the two years I've attended here; too bad it's not a four year school I'd like to stay here. I've really learned a lot. Everyone is helpful."

"I don't like the way teachers are teaching, you know, what they want us to do. Like I can't stand up in front of a class and start talkin'. I can't do that. The only thing I like up here is the P. E. classes."

"I plan on going in the Air Force." (When do you plan to go in?)  
"Well, I don't know yet; I'm just "gonta" take my tests on Monday and physical Tuesday and see what happens then. My parents want me to go to school, so if I go in the service, I can get the school I want." (What is that?) "Auto Mechanics. This way I can satisfy them, too."

"I came to C.S.M. until I became eighteen 'cuz I couldn't get a job. After I got my courses, I was going to stay, but I just didn't like it."

"If I was going fulltime, I would collect Social Security Benefits, you know, but my typing class was over-crowded, and she had to get rid of some people, so I was one of the people, and I couldn't get another class. That made me mad because I dropped to 11 units. I couldn't get in a night class because it was past the deadline."

"Students need more personal attention and contact with their instructors. We really don't have very much dialogue with adults. Some teachers help a lot, even more than a counselor. My pre-med counselor just handed me a program and that was it; didn't even ask me why I wanted to be a doctor or anything."

## APPENDIX K (continued)

Comments

"Sometimes things are O.K. I'm always trying to find a better way so I will make fewer mistakes."

"I really left C.S.M. on the spur of the moment thing; thought I wanted to go to work one morning and did. Didn't even think of it before."

"Teachers need to reorganize their courses, not really upgrading so much as reorganizing their studies."

"I really had to leave or face having another nervous breakdown."

"Oh, I don't know; I just didn't like school I guess. It's kinda hard for me. Know what I mean?"

"Many students are lost; need more personal attention, like me."

"I really didn't like CSM. Teachers in two classes didn't treat me like an adult, especially in this art class. I felt like I was trying; I needed help and asked for it--teacher couldn't be bothered! Said at the beginning of the class was available--contradictory."

"Better arrangement of lecture and lab science courses. I work in afternoon--couldn't get a course that wouldn't conflict, you know? And I really need to work."

Father reported that his son who went in the military said his son didn't have any goal and chose to go into the service for now. He has finished boot training in the Navy and is doing very well.

"How can you help a 56-year old recent widow who is becoming an alcoholic?"

"Need someone to sit down and discuss with me about making a decision and ask me 'Is this a rational decision?' I need more alternatives and someone to make suggestions."

"I'm very critical of myself and others."

"I didn't know enough about the job situation."

"I'm not really interested in answering your questions."

"Thanks a lot."

## APPENDIX K (continued)

Comments

"Thanks for your interest."

"I appreciate your interest--I guess someone at C.S.M. does care after all."

"I just can't stand that instructor--he just reads from the text the whole period! I only attended class because it was mandatory to pass."

"I know the teacher knows the subject--he's famous, sort of, but he doesn't really have time for us because we are not his 'stars,' you know?"

"I just came here to socialize. I don't know why."

"I couldn't get a job when I came across the bay to attend CSM. I was really disappointed--no job, falling behind. Am going back home and try again."

"I really shouldn't have gone back in the first place. I don't think I belong in school."

"Everyone wants to keep on learning. I found after I dropped and worked for awhile I found what work was like--no challenge, not interested in the dumb things people talk about at work, nothing stimulating or intellectual. I know what I want now."

"After being in the service I didn't want to do menial work--want to lead instead of being told what to do."

"I'm still trying to find myself."

"I'd like to get back into 'the swing of things.'" (Said that five times in course of interview.)

"What about motivation? That's a really good question. Need to get something going, I guess."

"I don't expect much of myself."

"I'm getting in shape for speed skating--hope to go to Nationals. Then maybe some day I'll return to a university--if I can get serious. If not, maybe I'll go to a community college at night."

## APPENDIX K (continued)

Comments

"I kinda like myself. If you don't like yourself you can't like someone else."

"I like to choose whatever I want rather than take what's required."

"It was the only thing to do at the time."

"Whatever's right."

Suggestions

"Special courses, like strictly secretarial for one year; make it condensed, shorter."

"Short range programs for short range goals, for immediate employment."

"I was upset when I couldn't get into the classes I wanted. A few weeks later there was plenty of room in those classes. Have some way of getting into classes when someone drops."

"An orientation period in later summer--get to know the instructors--maybe for three weeks."

"Exploration of careers course--have a great variety--include visitation to places of business and industry."

"Catalog doesn't give enough detail on courses. Need a place to go for information. Teachers and counselors time often conflicting with students. Need information in a hurry, like a drop-in center."

"Peer counseling to supplement counselor; sometimes get better information from students who really know; not a substitute for counselor."

"Some standardized system--how to budget time; have more free time now in college and don't know how to use it."

"Expand (have more sections) in popular courses."

"Students should have opportunity in high school or even junior high school to visit businesses and industrial companies to find out what it is all about. When they come to college they will have some idea what they want to do."

## APPENDIX K (continued)

Suggestions

"Continue to have more short-term courses."

"More personal (one-to-one) contact with faculty and counselors."

"Break down the big structure--few classes--not mandatory--no grades--no credit."

"Exploratory classes."

"More individual help for students; someone who cares."

"Short-term program in medical secretary. Courses to get a job in six months."

"During summer have a center to talk over problems or to get information. Could have it a semester break too or maybe on weekends."

"More open lab courses."

"Group help."

"Better public transportation or car pool system."

"Day care center."

"Refresher type courses to brush up--not just at night, early in the morning for shift work schedules."

"More counseling time with professional counselors not just programmers."

"More alternatives."

"More personal attention and contact."

## APPENDIX L

## CHARACTERISTICS OF SAMPLING

Student	Group (Transfer) (Career) (Undecided)	Reason* for leaving (Exit)	Confirm/ denial of reason at follow-up interview	Comparison of Units			
				Regis. fall 1972	2nd week	Exit	Spring 1973
1	T/C	7	C	9	11	12	
2	C	1	C	17	17	17	
3	C	1	C	11	11	11	
4	T	1	D	14	14	14	
5	T	1	D	8	14	14	
6	C	4	D	16	13	13	7
7	T	5		5	9	9	
8	T	9		3	8	3	
9	T	1	C	4	4	4	
10	T	5	D	10	7	7	9
11	U	10	D	3	3	3	
12	C	2	C	14	14	14	14
13	C	4	D	3	3	3	
14	T	1	D	8	11	11	14
15	T	4	D	2	2	2	
16	T	6		9	9	9	
17	C	3	C	15	14	14	
18	T	1		14	14	11	16
19	T	1		10	11	11	
20	T	1		13	14	14	17.5
21	T	1		17	16	16	
22	C	6	C	12	12	12	
23	T	3	D	14.5	15.5	11.5	
24	C	5	C	7	4	4	
25	T	8		13	9	12	
26	T	7	D	10	10	10	
27	C	1	C	13	14	7	
28	T	1		7	7	7	
29	C	1		9	9	9	
30	T	8	C	9	9	9	
31	C	9		15	15	15	
32	C	1	C	14	11	11	6
33	T	1	D	14	14	14	

\* See Table 11

## APPENDIX L (continued)

Student	Group (Transfer) (Career) (Undecided)	Reason* for leaving (Exit)	Confirm denial of reason at follow-up interview	Comparison of Units			
				Regis. fall 1972	2nd week	Exit	Spring 1973
34	T	1	D	15	14	14	
35	T/U	1	C	13	15	15	
36	C	4	C	16	13	10	
37	T	3		9	13	13	
38	C	3	C	17	17	17	
39	T	1		15	12	4	
40	T	7	C	17.5	12.5	14	
41	T	4		14	14	11	
42	T	2		5	14	14	
43	T/U	6		17	14	14	
44	T	5	C	9	6	6	6
45	T	6	C	14	15	15	
46	T	3	D	16.5	16.5	16.5	
47	T/U	3	C	7	7	7	
48	C	9	C	8	8	8	
49	C	1	C	9	9	9	
50	T	3	C	17	17	14	
51	T	3		10	15	15.5	
52	C	1	C	13	10	10	
53	T/U	6	C	16	13	13	13
54	C	8		15.5	15.5	15.5	
55	T	7	C	15	15	15	
56	C	2	C	17	21	21	
57	U	1		9	15	15	
58	C	4	D	9	9	9	R/O
59	T	4		14	17	17	
60	T/U	1		14	9	6	
61	C	13	C	17	17	13	15
62	T	8	D	5	5	5	
63	T	12	D	14	14	14	
64	T	1		9	9	9	
65	C	1		9	12	12	12
66	T/U	3		14	10	7	
67	T/U	5		11	11	11	
68	U	4	C	3	3	3	
69	T	3	C	15	15	15	10
70	T	2	D	16	8	8	14
71	T	2	C	13	6	6	
72	T/U	6		13	13	13	

## APPENDIX L (continued)

Student	Group (Transfer) (Career) (Undecided)	Reason* for leaving (Exit)	Confirm/ denial of reason at follow-up interview	Comparison of Units			
				Regis. fall 1972	2nd week	Exit	Spring 1973
73	C	2	C	6	3	3	
74	T/U	1		14	15	1	14
75	T	9		20	20	17	19
76	U	2	D	15	15	15	3
77	T	1		12.5	8.5	8.5	
78	T/U	4		19	18	18	14
80	T	9		3	3	3	
81	T	13		13	21	18	15
82	C	11		15	13	13	
83	T	1		9	13	13	
84	T	2		10	11	7	
85	C	4		12	12	12	3
86	T	8		13	13	10	
87	C	4	C	6	6	6	
88	T	5	C	10	10	10	5
89	C	2	D	15	3	16	13
90	U	12		3	10	10	
91	T/U	1		16	16	17	
92	T/U	1		13	10	10	
93	U	2		15	15	15	
94	T	7	C	5	13	13	
95	U	3		12.5	19.5	7	
96	T	3	C	17	17	14	16
97	C	10		4	4	4	2
98	T/U	1		12	7	7	
99	T	10		6	6	6	12
100	T	2		11	11	11	
101	C	7	C	17	19	15	
102	C	5	D	7	13	13	20
103	T	7	C	13	4	4	
104	T	1					
105	T	11		12	15	9	
106	T	2		15	15	15	3
107	T	8		13	16	16	R/O
108	C	2		10	10	10	R/O