

1980

The relationship of students' demographic characteristic variables to problems presented to student counseling service at Iowa State University from 1945-1970

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CHONGOLNEE, LA-EARD

THE RELATIONSHIP OF STUDENTS' DEMOGRAPHIC CHARACTERISTIC
VARIABLES TO PROBLEMS PRESENTED TO STUDENT COUNSELING
SERVICE AT IOWA STATE UNIVERSITY FROM 1945-1970

Iowa State University

PH.D.

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The relationship of students' demographic characteristic
variables to problems presented to student counseling
service at Iowa State University from 1945-1970

by

La-Eard Chongolnee

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
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DOCTOR OF PHILOSOPHY

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Ames, Iowa

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CHAPTER I. INTRODUCTION

"The history of higher education, especially in the English speaking world, pertains to more than college charters, courses of study, administrative system, and degree requirements, important as all of these may be. It also must take into account the student - his characteristics, his attitudes, his organizational activities" (Brubacher, 1958).

Higher education in the twentieth century has been described by Calvin B. T. Lee in the book "The Campus Scene, 1900-1970" - according to decades (Lee, 1970). He described the first two decades in the twentieth century as dominated by sentimentality and innocence. The students of the twenties were affected by the jazz age and prohibition and were described as being mad, bad and glad. The students of the thirties were called the hard times and somber students. During the forties, the second world war and the return of G.I.'s upset all of campus tradition by crowding with wives, children, and pets. The decade of the fifties was described as the silent generation dominated by the Korean War and Sputnik. The decade of the sixties was a very active period which included commitment, dissent and revolt.

The descriptions of these periods can not be categorized

in a few words. To gain a better understanding of some of the forces that helped shape the growth and development of higher education in the twentieth century, one must consider three groups of movements that had strong influences on the nature of higher education.

The first movement included:

The growth of measurement in psychology, education and industry.

The growth of psychology as a field of study and research. The identification of individual differences and the manner that these were identified and used in the educational process.

The mental hygiene movement that considered the importance of how a person got along with himself and others in the family, in school, on the job and in the community.

In 1911, Walter Dill Scott, a psychologist at Northwestern University, published the first book known to apply principles of psychology to employees in industry. When elected president of Northwestern University in 1919, he secured a commitment from the board of trustee to develop a personnel program for the university. He stated,

It is my belief that the emphasis should be on the individuality of the student and his present needs and interests. The student should be looked upon as more than a candidate for a degree, he is an individual that must be developed and trained for a life of service. . . . Inadequate attention has been given to the fundamental problems of personnel. A great problem in our nation today is the problem of people (Appleton, 1978).

The work of Scott built the foundations for the student

personnel programs in the colleges and universities of the twentieth century. As an outgrowth of Scott's work, tools of measurement had to be developed. The American Council on Education (1924) introduced the American Council on Education Psychological Examination for college students. This test commonly called the A.C.E., was adopted by a large number of colleges and universities as an admission test to determine the probability of success in college. Anne Anastasi, Columbia University, described the test as an intelligence test developed for large scale survey on college populations to predict college success (Buros, 1938). The test measured language and nonlanguage factors; however, the factors were weighted two to one in favor of language. The emphasis on the language factor made its use questionable for students in technical schools, engineering, those majoring in science, mathematics, physics and the accounting phase of economics. The A.C.E. served as the major college entrance test from 1924-1948 when it was merged under the direction of the Education Testing Service. Since that time the College Entrance Examination Board Test (C.E.E.B.) and the American College Test (A.C.T.) have been used for the prediction of college success.

The use of test scores to predict college success gradually led to the development of college and university testing bureaus. These bureaus organized and conducted

testing programs required of entering freshmen. The bureaus usually conducted the testing programs as part of the freshman orientation program. The profile of scores was used to advise the student as to curriculum choice and to provide information for the various departments. The objective was the best possible academic adjustment for the student.

The testing movement led to the establishment of the College Testing Bureau at Iowa State University in 1939. At that time it was under the Dean of the Junior College with only two counselors.

The end of World War II brought a large increase in the student enrollment, many of whom were returning G.I.'s. This increase in enrollment brought the need for more classrooms and office space and several "temporary" barracks buildings were erected on the campus to fill this need. One of these buildings, building H, the most permanent of the temporary buildings, housed the Testing Bureau and also the Veterans Administration counselors, who provided special counseling and advising for the returning G.I.'s. The Veterans Administration counseling was mostly educational and vocational as was most of the counseling that was being done in those days. Much emphasis was placed on the use of tests in the counseling process. During 1955, the Junior College concept was discontinued and the college testing office became the Office of Student Affairs. The

Student Counseling Service was developed and changed for better service to the students. The most recent changes in the structure came about in 1967 when a new position of Vice President for Student Affairs was created, and now the student counseling service is under the Vice President for Student Affairs who also administers admission and records, health, housing, financial aid, and student life. Since 1967, the Student Counseling Service staff has included a psychiatrist who is available, on campuses, one day each week. The latest emphasis here at Iowa State is to reach more students (Jones, 1970). The Student Counseling Service now employs nineteen professionals and professionals in training.

The second movement was a group of events that could be classified under the heading "Federal Legislation" which included the G.I. Bill of Rights Act of 1944, the National Defense Education Act of 1958, the National Vocational Education Act of 1963, the Civil Rights of 1964, and the Higher Education Act of 1965.

The G.I. Bill of Rights, or the Servicemen's Readjustment Act was the payment of a debt that the country owed to its defenders. It was signed on June 22, 1944 by President Roosevelt. Under this bill the government provided subsistence allowance, payment of tuition and fees, educational and vocational guidance and other benefits for veterans. Millions of veterans have been beneficiaries of

this law, mostly in colleges and universities (Public Law CH-268, 1944). This law caused a rapid growth of enrollment in the colleges and universities. The benefits were extended to the Korean veterans also.

The National Defense Education Act: In 1958, President Eisenhower signed the National Defense Education Act or N.D.E.A. which authorized an appropriation of \$47.5 million for 1959, \$75 million for 1960, \$82.5 million for 1961, and \$90 million for 1962 to provide loans on generous terms to undergraduate and graduate students, with inducement to enter the teaching profession and special subjects (as stated in Sec. 204 of Public Law of 1958, below).

CONDITIONS OF AGREEMENTS

Sec. 204. An agreement with any institution of higher education for Federal capital contributions by the Commissioner under this title shall-

(1) provide for establishment of a student loan fund by such institution;

(2) provide for deposit in such fund of (A) the Federal capital contributions, (B) an amount, equal to not less than one-ninth of such Federal contributions, contributed by such institution, (C) collections of principal and interest on student loans made from such fund, and (D) any other earnings of the fund;

(3) provide that such student loan fund shall be used only for loans to students in accordance with such agreement, for capital distributions as provided in this title, and for costs of litigation arising in connection with the collection of any loan from the fund or interest on such loan;

(4) provide that in the selection of students to receive loans from such student loan fund special

consideration shall be given to (A) students with a superior academic background who express a desire to teach in elementary or secondary schools, and (B) students whose academic background indicates a superior capacity or preparation in science, mathematics, engineering, or a modern foreign language; and

(5) include such other provisions as may be necessary to protect the financial interest of the United States and promote the purposes of this title and as are agreed to by the Commissioner and the institution.

The National Vocational Education Act of 1963: This law provided grants to states to assist them to maintain, extend and improve existing programs of vocational education, to develop new programs of vocational education, and to provide part-time employment for youths who needed the earnings from such employment to continue their vocational training on a full-time basis. In order that persons of all ages in all communities of the state - those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who need to upgrade their skills, and those with special educational handicaps - would have ready access to vocational training or retraining which is realistic in the light of actual or anticipated opportunities for gainful employment and which is suited to their needs, interests and ability to benefit from such training - the congress appropriated \$60 million for 1964, \$119 million in 1965, \$178 million in 1966 and \$225 million every year after

1967 (Public Law 88-210, 1963).

The Civil Right Act of 1964 provided equal educational opportunities for individuals regardless of race, color, religion, or national origin in public educational institutions. The government authorized states to arrange, through grants or contracts, with institutions of higher education special training programs designed to improve the ability of teachers, supervisors, counselors, and other elementary or secondary school personnel to deal effectively with special educational problems occasioned by desegregation (Public Law 88-352, 1964).

The Higher Education Act of 1965 provided through institutions of higher education; educational opportunity grants to assist in making available the benefits of higher education to qualified high school graduates of exceptional financial need, who, for lack of financial means of their own or of their families would be unable to obtain such benefits without such aid. At the end of June 1966-1969, the appropriation of \$70 million was made. This appropriation was also carried out the following years thereafter (Public Law 89-329, 1965).

The federal legislation plus the role of higher education as developed by the President's Commission on Higher Education of 1947, encouraged able students to attend colleges and universities by providing guidance services,

money for tuition, living expenses, classroom and residence facilities and money for staff members.

The third movement was the expansion and rapid growth of enrollments in higher education. One of the most obvious facts about higher education in the United States in the twentieth century was its swift and enormous increase in size. In 1900 there were 231,592 students in our colleges (Devane, 1965). In 1941 there were 2,338,226 students enrolled in both public and private institutions compared to 7,571,646 in 1968 (Hodgkinson, 1970) (see Table 1). The Carnegie Commission described the change in higher education in 1970 in the book "Institutions in Transition" (Hodgkinson, 1970) as follows:

- (1) The students in American higher education have become much more diverse in terms of social and economic background, but less so in terms of age.
- (2) The huge increase in enrollment of college students has been handled through the public sector by building many new community colleges and by expanding existing public colleges and universities, often to enormous size.
- (3) Almost all higher education is now coeducational.
- (4) In the opinion of their presidents, the most important changes in their institutions (in order) have been increases in faculty and student power, changes in academic programs, and changes in the composition of the student body.
- (5) Size is one of the most important factors in describing an institution. Larger institutions have a more diverse student body, a more research-oriented faculty, less institutional loyalty, more transients in the student body, poorer communication, and more student protests, etc.

Table 1. Enrollments and numbers of institutions, public and private, 1947-1968^a

Year	Public			Private		
	Number of institutions	Total number of students	Students per institution	Number of institutions	Total number of students	Students per institution
1947	548	1,152,377	2,102	1,141	1,185,849	1,039
1948	568	1,190,441	2,095	1,155	1,217,808	1,054
1949	594	1,218,580	2,051	1,209	1,238,261	1,024
1950	640	1,154,456	1,803	1,212	1,142,136	942
1951	638	1,051,990	1,648	1,221	1,064,450	871
1952	643	1,113,700	1,732	1,246	1,034,584	830
1953	646	1,203,558	1,863	1,205	1,047,143	868
1954	653	1,372,937	2,102	1,204	1,095,659	910
1955	652	1,498,510	2,298	1,203	1,180,113	980
1956	661	1,681,671	2,544	1,225	1,265,314	1,032
1957	669	1,780,280	2,661	1,268	1,288,137	1,015
1958	677	1,912,232	2,824	1,280	1,346,324	1,051
1959	698	2,002,868	2,869	1,313	1,399,429	1,065
1960	703	2,135,690	3,037	1,325	1,474,317	1,112
1961	721	2,351,719	3,261	1,319	1,539,511	1,167
1962	743	2,596,904	3,495	1,357	1,609,768	1,168
1963	762	2,872,823	3,770	1,377	1,655,693	1,202
1964	784	3,205,783	4,089	1,384	1,782,084	1,287
1965	790	3,654,578	4,626	1,417	1,915,693	1,351
1966	806	3,959,000	4,911	1,446	1,988,000	1,374
1967	820	4,366,000	5,324	1,474	2,134,000	1,447
1968	1,015	5,469,472	5,388	1,476	2,102,164	1,424

^aSource: Hodgkinson (1974).

Higher education in the United States has changed in many ways and one of the most important changes was the growth in enrollment. Iowa State University compared favorably with other institutions in terms of enrollment growth. From 1945-1970 the total enrollment was up from 3,407 to 19,620.

The student personnel services grew rapidly. This rapid growth was due in part to increased enrollments, wide range of student populations, social ferment, rise of coeducation, elective system, emphasis on vocationalism, impact of scientific method, student housing, and the changing roles of students in higher education.

These changes gave rise to a number of problems and issues in higher education. The student personnel services were confronted with many of these problems and had to develop programs with and without adequate information (Appleton et al., 1978).

Table 2. Total enrollment of Iowa State University from 1945-1970

Year	Total fall enrollment	Men	Women
1945	3,407	1,479	1,928
1946	9,216	7,220	1,996
1947	9,700	7,658	2,042
1948	10,114	8,189	1,925
1949	8,987	7,182	1,805
1950	8,135	6,069	2,066
1951	7,548	5,540	2,008
1952	7,483	5,750	1,733
1953	7,780	5,950	1,830
1954	8,308	6,435	1,813
1955	9,176	7,276	1,900
1956	9,673	7,778	1,895
1957	9,826	7,901	1,925
1958	9,503	7,566	1,941
1959	9,252	7,267	1,985
1960	9,726	7,621	2,105
1961	10,413	8,131	2,282
1962	10,887	8,454	2,433
1963	11,517	8,814	2,703
1964	12,451	9,456	2,995
1965	14,014	10,489	3,525
1966	15,183	11,239	3,944
1967	16,841	12,283	4,557
1968	18,083	12,882	5,201
1969	19,172	13,473	5,699
1970	19,620	13,451	6,169

^aData from Iowa State University Admissions Office.

Statement of the Problem

The present study was an attempt to investigate the problems of a representative group of students at Iowa State University. These students had come to the Iowa State Counseling Center to discuss their problems with the counselors. This study will identify those problems in relationship to the characteristics of the students for the years 1945-1970.

The type of problems presented to Iowa State University counseling service vary inherently with each individual. No problem is exactly the same; however, these problems can be classified into various types or categories.

Need for the Study

The counseling office in most colleges and universities is the place to provide students with help on various educational, vocational, personal and social problems. It is important for institutions to learn about the nature of students and their problems and the change that is taking place over a period of years. It is also helpful to get information for future plans.

Purpose of the Study

The purposes of this study were to seek answers to many questions concerning the clients of the counseling service. Some of the questions were:

What were the demographic characteristics of the students who have used the counseling service? Have the characteristics changed over the period studied (1945-1970)?

What type of problems was presented by the students? Have these changed during the period studied (1945-1970)?

Are there any relationships between the problems and the student's demographic characteristic variables (sex, age, marital status, classifications, the number of contacts, the number of tests taken, the type of college, the type of residence and the occupation of father)?

Are there any relationships between the period of years and the student's demographic characteristic variables (sex, age, marital status, classifications, the number of contacts, the number of tests taken, the type of college, the type of residence and the occupation of father)?

Basic Assumptions

Because all of the data used in this study were available from Iowa State University Counseling Service records, for the purpose of this study it is assumed that the information contained in the student's file was accurate and represented a true feeling and true statement of the student's problems.

It is assumed that all subjects have the ability to recognize and identify their problems as well as to give true statements on their age, sex, marital status, year in college, major field of study, etc.

Definition of Terms

Type of problem

The writer categorized the problems into three groups: educational, vocational and emotional, which was also used by various researchers Berezin (1957); Apostol (1959).

- Educational problems involve concerns such as poor grades, poor reading-writing ability, test anxiety, changing the curriculum, readmission, etc.
- Vocational problems center around occupational decisions, the selection of an appropriate college major, or perhaps a change of major or curriculum.
- Emotional problems involve counseling on a personal adjustment level such as work anxiety, health problems, marital problems, financial problems and other problems.

The period of years

The twenty-six years (1945-1970) covered by this study were divided into three periods as follows:

- First period covered was 1945-1952, a total of 8 years. It included the return of the G.I.'s and the emphasis upon educational and vocational guidance with the use of many standardized tests. The total sample in this period was 160.
- Second period covered the time from 1953-1961. This period included the N.D.E.A. of 1958 and federal support for specific programs. There were 180 samples in this nine year period.
- Third period covered the time from 1962-1970, a total of nine years, 180 samples. This period included the NVEA (National Vocational Education Act of 1963, Civil Rights Act 1964, the Higher Education Act of 1965 and much student revolt).

Client

In this study, client refers to any person who came to the Iowa State University Counseling Center for counseling services and for whom a record was established with a consecutive case number assigned.

Counseling center

The term counseling service, refers to the Iowa State Counseling service, staff, and facilities. The term counseling center is used synonymously with the term counseling service in the statement of the hypotheses and table titles to reduce repetition in the use of the terms.

Number of contacts

The number of times the student visited the counseling service for help.

Counselor

This term includes the regular staff members, graduate assistants, and students involved in practicum studies at Iowa State University Counseling Center. Any person who rendered a counseling service in the center during the period from which the case records were drawn (1945-1970) is designated as a counselor.

Limitations of the Study

The sample in this study was limited to the clients who used the Iowa State Counseling Service from January 1945 to December 1970. The data were limited to the information obtained from the case records at this counseling and testing center. An inherent limitation was the problem classification made for each record. Since several staff members were involved as counselors, and because of lack of uniform reporting form any limitations resulting from differences in notes made on the students' records became limitations of study.

Also the fact that this study is ex post facto research necessarily limits the nature and range of the data collected.

Organization of the Study

The study is divided into five chapters. Chapter I contains facts about the growth and development of higher education during the first three-fourths of the twentieth century and the student personnel problems that accompanied the rapid growth, questions about some of the problems are presented.

Chapter II contains a review of selected research studies concerned with student personnel problems.

Chapter III outlines the methods and research procedures for the study.

Chapter IV contains the findings of the study and discussion of some of the observations.

Chapter V contains the summary of the study with some of the major findings.

CHAPTER II. REVIEW OF LITERATURE

One of the early investigations of the problems of college students was made by Boraas (Boraas, 1917). He asked all sophomores and selected juniors and seniors in one college to write papers stating freely the difficulties they had experienced as freshmen. All difficulties were listed. This list was then returned to the same students, and they were asked to check the difficulties which they had experienced and to indicate the degree of seriousness by numbering them from one to four. He classified the problems into two divisions:

- I. Difficulties due to the nature of college life.
- II. Difficulties in connection with classes and studies.

The highest three problems in the first division were:

1. Confusion because college life is so different from home life and high school life.
2. Lack of anyone to confide in or to take counsel with.
3. Complicated registration system.

In the second division the highest three were:

1. Selection of studies.
2. No way of knowing how one gets along.
3. Large size of classes resulting in fear or embarrassment in reciting.

Boraas recommended more guidance in the selection of

courses, more consideration of the problem of vocational choice, the elimination of large classes, attention to the deficiencies of the individual student, and a regular program of personal conferences with freshmen.

Blanton (1925) conducted a study at the University of Minnesota on the problems of more than 1,000 junior and senior students. He found that over 50 percent had emotional problems which might prevent the students from realizing their "highest possibilities". At the same time, 10 percent of these students had problems severe enough to "warp their lives and in some cases to cause mental breakdowns unless properly treated" (Blanton, 1925). His study was an attempt to emphasize the problems of the average student, not the abnormal or unique student. Blanton strongly recommended the establishment of mental hygiene courses and student advisory services.

Bragdon (1929) studied the counseling problems in five liberal arts colleges for women. She defined counseling problems as "those problems which, for their thorough solution, demand individual consultation between the student and some official representative of the institution." Her study included the fields of adjustment giving rise to counseling problems: problems of the prologue to college, of the dormitory, the classroom, extracurricular activities, and individual conferences. She also studied the personal

problem solution process and made a critical study of the student interview. From this information she made specific proposals concerning the organization of a counseling program in a liberal arts college for women.

Strang (1929) studied the personal problems of women students in the freshman and sophomore classes of seven teacher training institutions. Four sources of information were used:

1. The writings of people in intimate contact with students.
2. The students' own statements of their problems.
3. Records kept by deans of all personal problems that came to their attention during one month.
4. Schedules of their professional day kept by the deans.

Seven freshman classes and two sophomore classes were asked to write anonymously the three chief difficulties which they had encountered during their freshman year. Half of the problems reported were related to studying. Of these, the most frequently mentioned were:

- difficulty with a particular subject,
- difficulty with teachers,
- too long or too indefinite assignments,
- inefficient methods of work, and
- difficulty in bridging the gap between high school and college.

Social problems constitute one-fourth of the total. Financial problems are common to all institutions.

Angell (1930) directed a study at the University of Michigan concerning the problems of undergraduates in that institution. He studied 216 undergraduates - 133 men and 83 women - selected largely from the sophomore class. He secured information relative to the following aspects of adjustment:

1. philosophy of life;
2. knowledge of own capacities, aims, and interests;
3. understanding of life, appreciation of science, art;
4. self-control, dependability;
5. originality, initiative;
6. tolerance, scientific thinking;
7. adjustment to academic work;
8. pecuniary adjustment;
9. group relations, social integration;
10. congeniality, social facility, tact;
11. sex adjustment; and
12. health.

Each member of the group was given an intelligence test, a social intelligence test, a fair-mindedness test, and an information test. In addition, each subject had an interview with a psychiatric case worker and submitted a personal

history record. On the basis of the information which he assembled, Angell classified the students as to their academic, social, and life adjustment. He felt that his results were difficult to summarize, but stated that his findings indicated the need for a better system of educational advice and of a mental hygiene unit in the college.

Katz and Allport (1931), in their extensive investigation of student attitudes at Syracuse University, included fifty-six graduate students among those studied. A minor phase of their study covered the need of advice on personal problems. Students were given a list of items which included general health, nervous or mental troubles, advice concerning sex hygiene, sex knowledge, advice on love and marriage, choice of a vocation, opportunities for self-support, problems of personality, choice of a program of study, change of program of study, methods of study, religion and philosophy of life, and other items, and were asked to check those upon which they had felt the need of advice but failed to obtain helpful advice because they knew of no one to ask or because the advice received was not beneficial. Problems of personality were most frequently reported, being checked by one-fifth of the group. The average number of problems checked by the graduate students was 2.92, as high as the average for any group included in the study.

Emme (1933) conducted a study at a small liberal

arts college (500 students). The major purpose of his study was to discover the areas in which freshmen found difficulty in making adjustment. He listed 400 different problems which were distributed among 18 areas:

1. problems related to courses, such as study habits, subject disabilities, and improper preparation - 12%;
2. problems involving religion - 12%;
3. Problems related to teachers, teaching procedures, expectations, etc. - 8%;
4. economic problems - 7%;
5. use of the library - 7%;
6. education guidance and control - 7%;
7. personal student relations - 6%;
8. athletic problems - 6%;
9. vocational problems - 5%;
10. rooming problems - 5%;
11. problems involving cultural, social, and amusement activities - 4%;
12. problems relating to other colleges, races, cliques, etc. - 4%;
13. parental relations - 4%;
14. physical and mental health problems - 3%;
15. relations with teachers outside of classes - 3%;
16. boarding problems - 3%;
17. problems in special ability groups such as band, dramatics, glee club, etc. - 2%; and

18. problems in relation to departmental, preprofessional, and interest group - 1%.

Emme observed that students tended to view their individual problems as being so unique and significant that their perception of the entire college situation was colored by them.

Stratton (1933) studied the problems of students in the graduate school of education at Columbia University. The data concerning the composition of the student body were available from the official records. The group of approximately 5,600 students represent a wide range in age, geographical distribution, and academic load. Three-fourths of the students were women, three-fourths were between 25 and 39 years of age, three-fourths were single, over two-thirds came from the North Atlantic region of the United States, over two-thirds were part-time students, and nearly two-thirds were graduate students.

The investigation was undertaken to answer the following questions:

1. What do the students report as their major personal and academic problems during their period of study in the institution?
2. Are certain problems characteristic of special groups?
3. Which problems do the students use for conference with officers of the college? Which officers are being consulted most frequently on the various kinds of problems?

4. Do the students regard these conferences as helpful?
5. How are the problems being solved?

Five methods of investigation, listed below, were used in making this study:

1. The official records of the college concerning the composition of the student body.
2. Student inquiry blanks.
3. Interview method.
4. Time schedules covering one-week periods.
5. Personnel officers were asked to keep records of all their conferences with students for one week.

The summary of the findings of this study were:

1. The major personal problems of students were finance, leisure and recreation, part-time work, placement and social relationship. By the same criterion, the most important academic problems pertain to courses, degrees and certificates, study, and general advisement. The following eleven problems constituted 79% of all academic problems reported: getting desired courses, choice of courses, use of the library, requirements for a degree, choice of a major, whether to work for a degree, advisement, academic standing, covering required work, dissertation and research, and how heavy a schedule to carry.

2. Problems of finance ranked first in frequency for the entire group. Men report financial problems more

frequently than women. Problems of leisure and recreation were especially characteristic of full-time students. Problems of part-time work were mentioned most frequently by the youngest students. Placement was reported as a major problem more often by the youngest and the oldest male students.

3. Students were more inclined to consult college officials regarding academic problems than regarding personal problems. While professors were consulted concerning a wide variety of problems, personnel officers tend to specialize in certain problems.

4. Students who reported regarding the helpfulness of conferences with college officials considered 80 percent of conferences on personal problems and 82 percent of conferences on academic problems to be helpful.

5. The entire group of academic problems showed higher percentages of satisfactory solutions than the personal problems.

6. The study indicated that the graduate students, as well as the undergraduates, had many unsolved problems both personal and academic, and that they consulted college officials with regard to all types of problems. The students reported over three-fourths of their conferences helpful in the solution of their problems.

Stratton suggested that there was a need for adequate personnel services for the college students.

Williamson and Paterson (1934) did a study at the University of Minnesota in which 278 faculty advisors consulted with 1,028 students an average of 3 times each; during which time they isolated 3,970 problems. Seventy-eight percent of the contacts made between the students and faculty dealt with the following problem areas:

1. Academic and scholastic	42.7%
2. Extracurricular	8.9%
3. Vocational	8.4%
4. Employment	6.4%
5. Graduate work	5.8%
6. Social relationship	5.5%
7. Other problems	22.5%

Warren R. Baller (1944) studied the characteristics of the freshmen (1942-43) who used the counseling services of the University of Nebraska to complete programs of educational or vocational testing and planning and/or help with personal-social problems.

The findings were:

1. The program of guidance has appealed more to the older students. Sixty-one percent of the freshmen who completed comprehensive programs of testing and counseling ranked above scaled score of 5 on the pre-registration classification test.

2. It was not the student whose achievements were below

expectations who sought help; on the contrary, it appeared that the upper scaled score categories were much better represented, proportionately, among the counseled group. Counseled students achieved, on the whole, better than non-counseled students.

3. The freshmen who were counseled on problems which centered on personal-social difficulties were not representative of the whole freshman class in scholastic aptitude. The poorly-adjusted students who came for counseling represented a better than average sampling of freshman abilities.

The writer concluded that nonrepresentativeness rather than its opposite may sometimes characterize college students who seek help from a testing and counseling service.

Ross L. Mooney (1943) did a study of freshman girls at Ohio State University. One-third of these girls were classified as well-adjusted, one-third as poorly adjusted, and one-third as being in the middle. The 171 subjects indicated an average of 29.8 problems checked, with a range of from 3 to 108. The Adjustment to College Work was the most commonly indicated area of problems, with Personal-Psychological Relations, Social and Recreational Activities, and Health and Physical Development following in rank order. This study by Mooney began to open up new areas of exploration for the problem check list type of study.

The differences between the problems of married versus

unmarried students were examined in a study conducted at Indiana University (Jones, 1958). He administered the Inventory of Affective Tolerance, the Personal Audit, and the Mooney Problem Check List to 106 members of the sample groups. Chi-square comparisons were made, and the author concluded that:

1. Married undergraduate college students appeared to have greater tolerance than did unmarried students.
2. Unmarried students expressed a significantly higher number of problems than did married students.
3. There appeared to be a definite relationship between the degree of tolerance and the typical problems of students.
4. Married students expressed more concern over present problems, while unmarried students appeared to be thinking more seriously about future problems.

Dugid (1968) conducted a study to determine if there was a trend in the type of problems the clients discussed with the counselors at the University of Wyoming Division of Counseling and Testing.

The writer investigated the counseling case records on file at the University of Wyoming. The period studied was from July 1, 1960 through June 30, 1967, involving seven years and approximately 3,100 separate case records. The number of interviews experienced by each client was determined by reviewing the notes kept for each client. The Chi-square

statistical method was used to analyze data classified in the categories (The Apostol-Miller Two-Dimensional Classification System was used to divide the problems into categories).

The major findings and conclusions in the study were:

1. The proportion of cases in the problem categories; vocational, emotional, and educational, was not the same across the seven-year period for men or women.

2. There was a sharp decrease in educational problems for both men and women in 1965-1966. However, women presented fewer educational problems than men.

3. There has been little change in proportion of cases in the vocational category for men or women between 1960 and 1967. Men consistently presented more vocational problems than was expected, and women consistently presented the same proportion of vocational problems as expected.

4. There was a considerable increase for male emotional problems; however, women present more emotional problems than men.

5. The proportion of number of interviews per counselee across the seven-year period did not stay constant in the vocational category, but the proportion of number of interviews per counselee in the educational and emotional categories did not vary greatly.

Dugid suggests that an increased number of counseling

hours per week should be utilized for emotional problems. He also found a need for more counselors to handle the probable increase of number of counselees with emotional problems.

Sharp and Marra (1971) attempted: a) to determine if clients seen at the Division of Counseling and Testing, University of Wyoming, were representative of the total student population, b) to determine if there was a variation in the relationship between client descriptive variables, classification of client problem area, and number of counseling sessions, c) to determine if the trends in type of problems presented by clients, as found by Dugid (1968), were continuing.

The experimental design consisted of ex post facto analysis of the data gathered from the client's individual record forms, American College Testing Program (ACT) scores, and counselor ratings of clients. The sample consisted of 594 clients from July, 1967 to June 1968. The Chi-square method was used to analyze the data.

He found that more of the younger clients used the service than expected by chance. However, the other variables (sex, marital status, class standing, residence and college) did not differentiate significantly the client group from the total student population. The relationship between client descriptive variables, classification of client problem areas, and the number of counseling sessions were sum-

marized in the following modal patterns:

- Pattern I. The client who has five interviews or more tends to be female, married, with children or pregnant, a junior, senior, or graduate student, between 20-22 years old with problems classified as emotional.
- Pattern II. The client who has less than three interviews tends to be male, unmarried, a freshman, 18-19 years old, and the problem area is classified as vocational or educational.
- Pattern III. The client with vocational problems tends to be male, a freshman, 18-19 years and married.
- Pattern IV. The client with emotional problems tends to be female, engaged, 20-22 years old, a junior, senior, or graduate student.
- Pattern V. The client with educational problems tends to be male, freshman or sophomore, engaged, and between 18 and 19 years old.

The final finding in this study was that the number of students with emotional problems seemed to increase significantly.

Fullerton and Potkay (1973) reported a study in which the writers conducted oral interviews with 341 undergraduate students. In answering a standardized interview format, the students indicated the following six areas in rank order as bringing the most pressure to bear upon them:

1. grades
2. money
3. social
4. future job

5. personal
6. opposite sex

In addition, the writers found that 91 percent of all students interviewed favored the university providing psychological services.

Hood (1974) did a study at North Texas State University with two basic purposes.

The first was to examine the personal problems which the freshman college student of the 1970's feels are significant to him.

The second was to determine if there were significant changes in the nature, configuration, and frequency of these indicated problems when compared with those of the freshman student of the preceding two decades.

The North Texas State University Counseling Center had gathered a large body of data concerning the problems which students felt were significant to them personally. The Mooney Problem Checklist was administered to over 4,000 freshmen students over the three decades of the 1950's, 1960's and 1970's.

Data were treated by a one-way analysis of variance, and Spearman rank order correlation coefficients were utilized in order to study the relationships between the 1950's, 1960's and 1970's.

The findings revealed that students of the 1970's

reported a significantly greater mean number of problems of concern, most concern, and combined levels of problem intensity than did students of the 1950's and 1960's. It was also found that the 1970's population indicated significantly more problems, with the exception of the adjustment to college work category, than did students of the 1950's and 1960's. The data for the 1970's showed a distinct increase in the reported number of problems in the areas of vocational and educational problems.

The writer concluded that the present-day freshman student feels more alientation and isolation from society in general than did the freshmen in the 1950's and 1960's. The 1970's student was experiencing a lessening degree of involvement and attachment to the home, and was slightly more confident of his academic background and preparation than were students of the previous two decades. He also concluded that the female of the 1970's was experiencing a great amount of pressure and anxiety. Both sexes of the 1970's appeared to have a poor sense of self-identity, along with the inability to stimulate and motivate their own behavior toward the alleviation of environmental problems.

The findings in one of the most recent studies of the impact of college on students were published (Alexander W. Astin, 1977) in the book "Four Critical Years". The findings were from a longitudinal study by the Cooperative

Institutional Research Program (CIRP). The study included data from more than 300 institutions, over 200,000 students and covered the years 1961-1970.

The design of the study included both cognitive and affective outcomes and psychological and behavioral data. The impact was measured in terms of how long the student was exposed (how long the student was enrolled in college) and intensity of exposure (extent of student involvement).

There were three purposes in the study:

1. To understand the meaning of student change.
2. To develop student outcome measures.
3. To design analyses of college impact.

The data for this study were obtained from entering freshmen and from the years they attended college. The information on each student was combined statistically through multiple regression techniques to obtain a predicted or expected score on each outcome measure under investigation. The effects of college experiences were measured by comparing predicted outcomes based on entering freshman characteristics with actual outcomes measured separately for students in different college environments.

The findings of the study are summarized under seven major findings:

1. Student change during college:

Students develop a more positive self-image as reflected in greater interpersonal and intellectual competence, and they develop more liberal political views and attitudes toward social issues.

They show less interest in religion, athletics, business, music, and status. Freshmen appear to be less studious and to interact less with instructors than they did in high school. Studiousness and interaction with faculty increase with time in college.

2. Difference in change:

The brightest students sometimes change more than the less well-prepared students. Differential changes are evident in several student characteristics.

Sex: Men enter college with stronger business interests and somewhat higher interpersonal and intellectual self-esteem. Women enter college with stronger religious, altruistic and artistic interests. These interests persist during the undergraduate years. Both groups increase in liberalization. Women earn higher grades but are less likely to persist and enter graduate school. College does not seem to reduce many of these gender related differences.

Ability: High ability students are more politically liberal, less religious, and have much higher aspirations than middle or low ability students at time of college entry.

These differences become even greater during college. American higher education is designed primarily for the highly able students.

Race: Black students became more politically liberal and are more likely than white students to abandon traditional religious affiliations during college. Blacks are more likely to get involved in demonstrations and to get involved in student government. They are less likely to get married. Blacks tend to be somewhat less satisfied than whites with their college experience.

Age: Younger students are more likely than older students to abandon traditional religious beliefs. Younger students are more likely to get involved in student government and activities. Older students tend to react more with faculty and to become more involved academically. Older students get better grades than younger students. Age shows no relationship with student satisfaction.

3. Impact of student movement:

Place of residence: The most significant impact of living on campus versus community is on achievement and career development. Living on campus increases the students chances of persisting in college and of aspiring to graduates or professional degrees. Residents express much more satisfaction than commuters with their undergraduate experiences.

Academic involvement: Academically involved students are those who spend a good deal of time and say they work hard on their studies. Students with heavy academic involvement tend to be retarded in the changes in personality and behavior that normally result from college attendance.

4. Impact of academic achievement:

Good grades strongly relate to persistence in college and also to aspirations for graduate and professional training. Students with high grades are much more likely to implement career plans in all fields.

5. Impact of major field:

Students show substantially larger increases in intellectual self-esteem if they enter college with plans to major in mathematics, physical sciences, engineering or pre-medicine. Engineering students, however, show smaller than average increases in interpersonal self-esteem, political liberalism, and artistic interests. Students majoring in social science show greater than average increases in liberalism, artistic interest and altruism. They also show larger than average decreases in business interests. Students' undergraduate grades are affected by their fields. The most stringent grading occurs in engineering, mathematics and physical sciences, while the most lenient occurs in the humanities.

6. Impact of different types of colleges:

Attending a selective institution tends to increase attitudinal and personality changes, reduces students' undergraduate grade-point average and chances in participating in an honor program. Highly selective private colleges increase the student aspirations for graduate and professional education and their chances of enrolling in such programs.

Attending a two-year institution impedes changes that are normally associated with college attendance.

7. Patterns of student development:

Highly involved students come from educated and relatively affluent families, obtain good grades and hence high entrance examination scores. They have high aspirations, attend select colleges and live on campus.

Academic involvement and athletic involvement: few students follow any given pattern of development. The findings of the study emphasize the difference in student behavior and development that come in part from the college experience.

Summary of Literature Review

The review of research reveals an interest in the study of student problems dating from the beginning of the student personnel movement.

These studies have become more complex as new measures and new research designs were developed. Systems for the

classification of student problems have been developed and used.

Few longitudinal studies have been made. The findings of these studies indicate that fewer student problems are being reported in the educational and vocational areas and more student problems are being reported in the emotional or personal area.

The writer was able to find only one longitudinal study of student problems with data from counseling folders and that one covered a period of seven years.

CHAPTER III. METHOD OF PROCEDURE

The purpose of this study was to answer two questions:

Is there a relationship between the type of problems and the student's demographic characteristic variables (sex, age, marital status, classification, number of contacts, number of tests taken, type of college, type of residence and the occupation of father?

Is there a relationship between the period of years (1945-1952, 1953-1961, 1962-1970) and the student's demographic characteristic variables (sex, age, marital status, classifications, number of contacts, number of tests taken, type of college, type of residence and the occupation of father?

Hypotheses

1. The sex of students who used counseling service at I.S.U. counseling center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

2. The age of students who used counseling service at I.S.U. counseling center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

3. The marital status of students who used counseling service at I.S.U. counseling center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

4. The classification status of students (freshman, sophomore, junior and senior, graduate) who used counseling services at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1963-1970) are unrelated or independent.

5. The number of contacts by students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

6. The number of tests taken by the students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

7. The college classification of the students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

8. The type of residence (dorm, fraternity, student married housing, home, off campus apartments) of students who used counseling services at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

9. The occupation of father of the students who used the counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are un-

related or independent.

10. The type of problems of the students who used the counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1963-1970) are unrelated or independent.

11. The sex of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

12. The age of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

13. The marital status of students who used counseling services at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

14. The classification status of students (freshman, sophomore, junior and senior, graduate) who used counseling services at I.S.U. Counseling Center and the type of problems (educational, emotional) are unrelated or independent.

15. The number of contacts of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

16. The number of tests taken by the students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

17. The college classification of the students who used counseling services at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

18. The type of residence (on campus, off campus) of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

19. The occupation of father of the students who used counseling services at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

The Sample

The student testing bureau began a more complete system of student records with the return of the veterans of World War II. A folder was developed for each student who came to the testing bureau. The folder contained information about certain student characteristics and a record of tests taken and test scores. It also contained a report of the student problem discussed with the counselor and planned

action. These folders were kept in the office of the testing bureau (counseling service) while the student was enrolled in the university. After a period of time, the noncurrent folders were stored in the basement of Beardshear Hall. When the counseling service was moved to its new quarters, the decision was made to destroy the student counseling files from 1945 through 1970. The writer was given the opportunity to design a study using data from the students' folders.

The design of the study was approved and permission was granted by the Iowa State Counseling Service to conduct the study.

Data Collection Procedure

After consultation with some of the members of the Educational Research Section, the decision was made to draw a sample of 20 students from each year 1945-1970, a total of 26 years and a total sample of 520 student files.

After inspection of the storage files and boxes, the decision was made to select at random one or more folders from each file or box. Thus if there were 20 file drawers for a year, one folder was selected at random from each file drawer. The folders for 520 students (394 males and 126 females) were drawn.

The writer developed an information sheet to collect the data needed to study the questions raised in Chapter I.

Information was gathered on eleven items (code sheet, Appendix A). Data from the code sheets were transferred to IBM cards. The data were organized into tables and Chi-square values were computed. The SAS computer program was used.

Statistical Techniques

Because the data in this study were nonparametric, the Chi-square statistical procedure was used to analyze the data. The purposes of this study were to answer questions concerning the relationship of student's demographic characteristic variables to the period of years (1945-1952, 1953-1961, 1962-1970). The findings are presented in Tables 3 through 12. Data to answer the question concerning the relationship of student's demographic characteristic variables to the type of problems (educational, vocational, emotional), are presented in Tables 13 through 21.

CHAPTER IV. FINDINGS AND DISCUSSION

The purposes of this chapter are to present results of the statistical techniques used in analyzing the data and to test the hypotheses in order to answer the following questions:

1. Is there a relationship between sex, age, marital status, classification, number of contacts, number of tests taken, college, type of residence, occupation of father, and the type of problems of the students who used the Iowa State University Counseling Service between the periods of 1945-1952, 1953-1961, and 1962-1970?

2. Is there a relationship between sex, age, marital status, classification, number of contacts, number of tests taken, college, type of residence, occupation of father of the students who used the Iowa State University Counseling Service and classification of type of problems classified as the following; educational, vocational, and emotional.

Testing of Hypotheses

To present the results systematically, the findings are organized into two groups:

The first group of hypotheses were tested using Chi-square to analyze the relationship among the three periods of years and the independent variables.

The second group of hypotheses were tested using Chi-square to analyze the relationship between the type of problems and the independent variables.

Hypothesis 1: The sex of students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 3. The distribution of students using the I.S.U. Counseling Service by sex and period^a

Period	Sex				TOTAL	
	Male		Female		N	%
	N	%	N	%		
1945-1952	125	78.14	35	21.86	160	30.76
1953-1961	149	82.78	31	17.22	180	34.62
1962-1970	120	66.67	60	33.33	180	34.62
TOTAL	394	(75.77)	126	(24.23)	520	100.00

$\chi^2 = 13.42^{**}$ df = 2

p = 0.0012

^aThe null hypothesis was rejected. The sex of the students who used counseling services at I.S.U. Counseling Center and the period of years 1945-1952, 1953-1961, and 1962-1970 are related.

In relationship to sex the highest proportion of males who used the counseling service was in the second period, and the lowest proportion was in the third period. For female the trend was opposite. The highest proportion of females was in the third period and the lowest was in the second period. The data indicate that the percent of males using counseling service decreased and the percent of females using the counseling service increased.

^{**}The Chi-square calculation was highly significant beyond the one percent level.

Hypothesis 2: The age of students who used counseling services at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 4. The distribution of students using the I.S.U. Counseling Service by age and period^a

Period	Age						TOTAL		
	Less than 18		19-20		Over 20				
	N	%	N	%	N	%	N	%	
1945-1952	56	35.00	51	31.88	53	33.12	160	30.76	
1953-1961	77	42.78	66	36.66	37	20.56	180	34.62	
1962-1970	70	38.89	79	43.89	31	17.22	180	34.62	
TOTAL	203	(39.04)	196	(37.69)	121	(23.27)	520	100.00	
							$\chi^2 = 14.71^{**}$		df = 4
							p = 0.0053		

^aThe null hypothesis was rejected. There is a relationship between the age of the students who used I.S.U. Counseling Service and the period of years 1945-1952, 1953-1961, 1962-1970.

In the first period the age group of students who used the service was equally distributed. The second period, the highest proportion of the students who used the service was in the age 18 or less group, but in the third period the highest proportion was the 19-20 years old. The data indicate that there has been a constant growth in the percent of the 19-20 year group in the use of the counseling services. The number of students age over 20 decreased.

** The Chi-square value was highly significant beyond the one percent level.

Hypothesis 3: The marital status of students who used counseling services at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 5. The distribution of students using the I.S.U. Counseling Service by marital status and period^a

Period	Marital Status				TOTAL	
	Married		Single		N	%
	N	%	N	%		
1945-1952	14	11.02	113	88.98	127	26.13
1953-1961	21	11.67	159	88.33	180	37.04
1962-1970	9	5.03	170	94.97	179	36.83
TOTAL	44	(9.05)	142	(90.95)	486	100.00

$$\chi^2 = 5.61 \quad df = 2$$

$$p = 0.0604$$

^aThe null hypothesis was not rejected. Therefore, it can be concluded that the marital status of students who used I.S.U. Counseling Service and the period of years 1945-1952, 1953-1961, 1962-1970 are unrelated or independent.

The number of single students who used the service has increased throughout the years. The number of married students who used the counseling services in the third period (1962-1970) declined.

Hypothesis 4: The classification status of students (freshman, sophomore, junior and senior, grad.) who used counseling service at I.S.U. Counseling Center and the period years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 6. The distribution of students using the I.S.U. Counseling Service by classification and period^a

Period	Classification								TOTAL	
	Fr.		Sop.		Jr.-Sr.		Grad.			
	N	%	N	%	N	%	N	%	N	%
1945-1952	94	59.81	40	25.48	19	12.10	4	2.55	157	30.48
1953-1961	88	49.16	44	24.38	18	10.06	29	16.20	179	34.76
1962-1970	99	55.31	48	26.82	13	7.26	19	10.61	170	34.76
TOTAL	281	(54.56)	132	(25.63)	50	(9.71)	52	(10.10)	515	100.00

$\chi^2 = 19.53^{**}$ $df = 6$

$p = 0.0034$

^aThe null hypothesis was rejected. There is a relationship between the classification status of students who used counseling service at I.S.U. Counseling Center and the period of years 1945-1952, 1953-1961, and 1962-1970.

The number of freshmen and sophomores who used the service remained constant throughout the 26 year period, but the number of juniors and seniors dropped in the third period. The number of graduate students who used the counseling service was the largest in the second period.

^{**}The Chi-square value was highly significant beyond the one percent level.

Hypothesis 5: The number of contacts of students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 7. The distribution of students using the I.S.U. Counseling Service by number of contacts and period^a

Period	Number of Contacts						TOTAL	
	One or less		Two times		Two or more		N	%
	N	%	N	%	N	%		
1945-1952	105	65.62	38	23.75	17	10.63	160	30.76
1953-1961	111	61.67	56	31.11	13	7.22	180	34.62
1962-1970	85	47.22	68	37.78	27	15.00	180	34.62
TOTAL	301	(57.88)	162	(31.15)	57	(10.97)	520	100.00

$$\chi^2 = 15.98^{**} \quad df = 4$$

$$p = 0.0030$$

^aThe null hypothesis was rejected. There is a relationship between the number of contacts of students who used I.S.U. Counseling Service and the period of years 1945-1952, 1953-1961, 1962-1970.

The number of students who used the counseling service one time declined over the years. The number using the services two or two or more times increased.

**The Chi-square value was highly significant beyond the one percent level.

Hypothesis 6: The number of tests taken by the students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 8. The distribution of students using the I.S.U. Counseling Service by number of tests taken and period^a

Period	Number of Tests Taken									
	5 or less		6-10		11-15		16 & over		TOTAL	
	N	%	N	%	N	%	N	%	N	%
1945-1952	42	26.25	43	26.87	38	23.75	37	23.13	160	31.43
1953-1961	31	17.32	68	37.99	51	28.49	29	16.20	179	35.17
1962-1970	112	65.88	54	31.78	4	2.35	0	0.00	170	33.40
TOTAL	185	(36.34)	165	(32.42)	93	(18.67)	66	(12.97)	509	100.00

$$\chi^2 = 39.034^{**} \quad df = 6$$

$$p = 0.0001$$

^aThe null hypothesis was rejected. There is a relationship between the number of tests taken by the students who used I.S.U. Counseling Service and the period of years. The majority of students in the period of years 1962-1970 took 5 or fewer tests. None took 16 or over.

The students who used the counseling service between the year 1945-1961 (the first 2 periods) seemed to have taken more tests than the students of the third period (1962-1970). About 45% of the students in the first two periods had taken 11 or more tests. In comparison only 2% of the third period students took 11 or more tests. The data indicate that students were taking fewer tests.

** The Chi-square value was highly significant beyond the one percent level.

Hypothesis 7: The college of the students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 9. The distribution of students using the I.S.U. Counseling Service by the college and period^a

Period	College											
	Engrg.		Agric.		Home Ec.		Sci.-Hum.		Others		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
1945-1952	77	51.68	19	12.75	16	10.74	27	18.12	10	6.71	149	33.33
1953-1961	78	53.42	17	11.65	15	10.28	21	14.38	15	10.27	146	32.66
1962-1970	55	36.17	8	5.26	17	11.18	53	34.87	19	12.50	152	34.01
TOTAL	210	(46.98)	44	(9.84)	48	(10.74)	101	(22.60)	44	*9.84)	447	100.00

$$\chi^2 = 29.232^{**} \quad df = 8$$

$$p = 0.0003$$

^aThe null hypothesis was rejected. There is a relationship between the type of college of the students who used I.S.U. Counseling Service and the period of years (1945-1952, 1953-1961, 1962-1970).

For all three periods the number of students from the College of Engineering using the counseling service was largest. The number of students using the counseling service from the College of Engineering and College of Agriculture decreased during the three periods. The number from the College of Home Economics remained constant and the number from the College of Science and Humanities increased.

**The Chi-square value was highly significant beyond the one percent level.

Hypothesis 8: The type of residence (dorm, fraternity, married student housing, home, off campus apartment) of students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 10. The distribution of students using the I.S.U. Counseling Service by type of residence and period^a

Period	Type of Residence										TOTAL	
	Dorm.		Fra.		Mar. Hous.		Home		Off Camp.			
	N	%	N	%	N	%	N	%	N	%	N	%
1945-1952	47	37.30	29	23.02	5	3.97	22	17.46	23	18.25	126	26.75
1953-1961	73	42.20	23	13.29	14	8.09	43	24.86	20	11.56	173	36.73
1962-1970	88	51.15	4	2.33	5	2.91	14	8.14	61	35.47	172	36.52
TOTAL	208	(44.15)	56	(11.89)	24	(5.10)	79	(16.77)	104	(22.08)	471	100.00

$$\chi^2 = 72.90^{**} \quad df = 8$$

$$p = 0.0001$$

^aThe null hypothesis was rejected. There is a relationship between the type of residence of students who used I.S.U. Counseling Service and the period of years (1945-1952, 1953-1961, 1962-1970).

For all three periods there was an increase in the number of students who used the counseling service from the dormitories. There was a decrease in the number of students from fraternities using the student counseling services. The number of students who lived in married housing, at home or off campus presented a mixed pattern of use of the counseling services for the three periods. However, the number of students using the counseling services from these three groups was larger in the third period than in the first period.

** The Chi-square value was highly significant beyond the one percent level.

Hypothesis 9: The occupation of father of the students who used the counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 11. The distribution of students using the I.S.U. Counseling Service by the occupation of father and period^a

Period	Occupation of Father										TOTAL	
	Prof.		Cler. & Sale		Farmer		Const./Fact.		Other			
	N	%	N	%	N	%	N	%	N	%	N	%
1945-1952	43	28.67	35	23.33	17	11.33	15	10.00	40	26.67	150	31.98
1953-1961	37	21.64	39	22.80	18	10.53	23	13.45	54	31.58	171	36.46
1962-1970	39	26.35	23	15.54	16	10.81	19	12.84	51	34.46	148	31.56
TOTAL	119	(25.37)	97	(20.68)	51	(10.88)	57	(12.15)	145	(30.92)	469	100.00

$$\chi^2 = 6.83 \quad df = 8$$

$$p = 0.5552$$

^aThe null hypothesis was not rejected. Therefore, it can be concluded that the occupations of father of students who used I.S.U. Counseling Service and the period of years 1945-1952, 1953-1961, 1962-1970 are unrelated or independent.

For all three periods the number of students in each category of the occupation of father varied. The variance in number is not large enough to be significant.

Hypothesis 10: The type of problems of the students who used the counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent.

Table 12. The distribution of students using the I.S.U. Counseling Service by the type of problems and period^a

Period	Type of Problem							
	Ed. prob.		Voc. prob.		Emo. prob.		TOTAL	
	N	%	N	%	N	%	N	%
1945-1952	126	78.75	27	16.87	7	4.38	160	30.76
1953-1961	81	45.00	86	47.78	13	7.22	180	34.62
1962-1970	65	36.11	86	47.78	29	16.11	180	34.62
TOTAL	272	(52.31)	199	(38.27)	49	(9.42)	520	100.00

$\chi^2 = 73.690^{**}$ $df = 4$
 $p = 0.0001$

^aThe null hypothesis was rejected. There is a relationship between the type of problems of students who used I.S.U. Counseling Service and the period of years (1945-1952, 1953-1961, 1962-1970).

The number of students using the counseling service reported the largest number of problems in the educational area for the first period. For the second and third period the proportion of the number of problems reported in the vocational and emotional areas increased in each period.

^{**}The Chi-square value was highly significant beyond the one percent level.

Hypothesis 11: The sex of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

Table 13. The distribution of students using the I.S.U. Counseling Service by sex and type of problems

Type of problem	Sex				TOTAL	
	Male		Female		N	%
	N	%	N	%		
Educational	229	84.19	43	15.81	272	52.31
Vocational	133	66.83	66	33.17	149	38.27
Emotional	32	65.31	17	34.69	49	9.42
TOTAL	394	(75.77)	126	(24.23)	520	100.00

$$\chi^2 = 22.084^{**} \quad df = 2$$

$$p = 0.0001$$

^aThe null hypothesis was rejected. The sex of the students who used counseling services at I.S.U. Counseling Center and the type of problems are related.

The male students reported more educational problems than expected and the female students reported fewer educational problems than expected. The male students reported fewer vocational problems than expected and the female students reported more vocational problems than expected. The male students reported fewer emotional problems than expected and the female students reported more emotional problems than expected.

^{**}The Chi-square value was highly significant beyond the one percent level.

Hypothesis 12: The age of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

Table 14. The distribution of students using the I.S.U. Counseling Service by age and type of problems^a

Type of problem	Age						TOTAL	
	Less than 18		19-20		Over 20		N	%
	N	%	N	%	N	%		
Educational	97	35.66	105	38.60	70	25.74	272	52.31
Vocational	92	46.23	69	34.67	38	19.10	199	38.27
Emotional	14	28.57	22	44.90	13	26.53	49	9.42
TOTAL	203	(39.04)	196	(37.69)	121	(23.27)	520	100.00

$\chi^2 = 8.447$ df = 4
p = 0.0765

^aThe hypothesis was not rejected. Therefore, it can be concluded that the age of the students who used I.S.U. Counseling Service and the type of problems are unrelated or independent.

Hypothesis 13: The marital status of students who used counseling services at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

Table 15. The distribution of students using the I.S.U. Counseling Service by marital status and type of problems^a

Type of problem	Marital Status				TOTAL	
	Married		Single		N	%
	N	%	N	%		
Educational	26	10.74	216	89.26	242	49.79
Vocational	14	7.14	182	92.86	196	40.33
Emotional	4	8.33	44	91.67	48	9.88
TOTAL	44	(9.05)	442	(90.95)	486	100.00

$$\chi^2 = 1.739 \quad df = 2$$

$$p = 0.4192$$

^aThe hypothesis was not rejected. Therefore, it can be concluded that the marital status of the students who used I.S.U. Counseling Service and the type of problems are unrelated or independent.

Hypothesis 14: The classification status of students (freshman, sophomore, junior and senior, grad.) who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

Table 16. The distribution of students using the I.S.U. Counseling Service by classification and type of problems^a

Type of problem	Classification Status									
	Fr.		Soph.		Jr.-Sr.		Grad.		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Educational	154	57.04	81	30.00	32	11.85	3	1.11	270	54.43
Vocational	100	51.02	39	19.90	12	6.12	45	22.96	196	38.06
Emotional	27	55.10	12	24.50	6	12.24	4	8.16	49	9.51
TOTAL	281	(54.56)	132	(25.63)	50	(9.71)	52	(10.10)	515	100.00

$$\chi^2 = 63.391^{**} \quad df = 6$$

$$p = 0.0001$$

^aThe null hypothesis was rejected. There is a relationship between the classification status of students who used I.S.U. Counseling Service and the type of problems.

The number of freshman students rank first in all three types of problems. The sophomore, junior and senior students had more educational and emotional than vocational problems. The graduate students had more vocational problems than educational and emotional problems.

Freshman students reported more problems than expected in each of the three categories. Sophomore students reported more educational problems than expected and fewer vocational and emotional problems than expected.

**The Chi-square value was highly significant beyond the one percent level.

Hypothesis 15: The number of contacts of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

Table 17. The distribution of students using the I.S.U. Counseling Service by number of contacts and type of problems^a

Type of problem	Number of contacts						TOTAL	
	1 or less		2 times		2 or more		N	%
	N	%	N	%	N	%		
Educational	152	55.88	83	30.51	37	13.61	272	52.31
Vocational	127	63.82	66	33.16	6	3.02	199	38.27
Emotional	22	44.90	13	26.53	14	28.57	49	9.42
TOTAL	301	(57.88)	162	(31.15)	57	(10.97)	520	100.00

$$\chi^2 = 30.515^{**} \quad df = 4$$

$$p = 0.0001$$

^aThe null hypothesis was rejected. There is a relationship between the number of contacts, of students who used I.S.U. Counseling Service and the type of problems.

The students with educational and vocational problems had fewer contacts with counselors than the students with an emotional problem. More than 50 percent of the students with educational or vocational problems saw the counselor one time. More than 50 percent of the students with emotional problems saw the counselor two or more times. One student reported seeing the counselor 78 times.

^{**}The Chi-square value was highly significant beyond the one percent level.

Hypothesis 16: The number of tests taken by the students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent.

Table 18. The distribution of students using the I.S.U. Counseling Service by number of tests taken and type of problems^a

Type of problem	Number of Tests Taken									
	5 or less		6-10		11-15		16 and over		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Educational	97	35.43	92	34.07	44	18.15	32	11.85	270	53.05
Vocational	62	31.79	68	34.87	38	19.49	27	13.85	195	38.31
Emotional	26	59.09	5	11.36	6	13.64	7	15.91	44	8.64
TOTAL	185	(36.35)	165	(32.42)	93	(18.26)	66	(12.97)	509	100.00

$$\chi^2 = 15.341^{**} \quad df = 6$$

$$p = 0.0178$$

^aThe null hypothesis was rejected. There is a relationship between the number of tests taken by the students who used I.S.U. Counseling Service and the type of problems.

Students reporting educational problems took about the expected number of tests in all classifications. Students reporting vocational problems took more tests than expected. Students reporting emotional problems took fewer tests than expected.

^{**}The Chi-square value was highly significant beyond the one percent level.

Hypothesis 17: The college of the students who used counseling service at I.S.U. Counseling Center and the type of problems (education, vocational, emotional) are unrelated or independent.

Table 19. The distribution of students using the I.S.U. Counseling Service by the college and type of problems^a

	College									
	Engrg.		Ag./Home Ec.		Sci. Hum.		Other		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Educational	151	56.34	48	17.92	49	18.28	20	7.46	268	59.95
Vocational	50	35.22	34	23.94	41	28.87	17	11.97	142	31.77
Emotional	9	24.32	10	27.03	11	29.73	7	18.92	37	8.28
TOTAL	210	(46.98)	92	(20.58)	101	(22.60)	44	(9.84)	447	100.00

$$\chi^2 = 26.494^{**} \quad df = 6$$

$$p = 0.0002$$

^aThe null hypothesis was rejected. There is a relationship between the type of college of the students who used I.S.U. Counseling Service and the type of problems.

The number of students from the Engineering College reported more educational problems than expected and fewer vocational and emotional problems than expected. The students in the other colleges reported fewer educational problems than expected and more vocational and emotional problems than expected. (Agriculture and Home Economics had to be combined in order to get adequate numbers in the cells.)

** The Chi-square value was highly significant beyond the one percent level.

Hypothesis 18: The type of residence, on campus, off campus, of students who used the counseling service at I.S.U. Counseling Center and the type of problems are unrelated or independent.

Table 20. The distribution of students using the I.S.U. Counseling Service by type of residence and type of problems^a

Type of problem	Type of Residence				TOTAL	
	On campus		Off campus		N	%
	N	%	N	%		
Educational	156	64.73	85	35.27	241	51.17
Vocational	105	56.76	80	43.24	185	39.28
Emotional	27	60.00	18	40.00	45	9.55
TOTAL	288	(61.15)	183	(38.85)	471	100.00

$\chi^2 = 2.828 \quad df = 2$
 $p = 0.2431$

^aThe Chi-square value was not significant. Therefore, the null hypothesis can not be rejected. It can be concluded that the type of residence of I.S.U. students and the type of problems are unrelated or independent.

(The type of residence had to be combined as on campus and off campus in order to get adequate numbers in the cells.)

Hypothesis 19: The occupation of father of the students who used the counseling service at I.S.U. Counseling Center and the type of problems (education, vocational, emotional) are unrelated or independent.

Table 21: The distribution of students using the I.S.U. Counseling Service by the occupation of father and type of problems^a

Type of problems	Occupation of Father										TOTAL	
	Prof.		Cler./Sale		Farming		Const./Fact.		Others			
	N	%	N	%	N	%	N	%	N	%	N	%
Educational	67	26.69	59	23.51	30	11.95	27	10.76	68	27.09	251	33.52
Vocational	44	25.14	33	18.86	16	9.14	22	12.57	60	34.29	175	37.91
Emotional	8	18.60	5	11.63	5	11.63	8	18.60	17	39.34	43	9.17
TOTAL	119	(25.37)	97	(20.68)	51	(10.88)	57	(12.15)	145	(30.92)	469	100.00

$\chi^2 = 9.443 \quad df = 8$

$p = 0.3063$

^aThe Chi-square value was not significant. Therefore, the hypothesis was not rejected. It can be concluded that the occupation of father of students who used I.S.U. Counseling Service and the type of problems are unrelated or independent.

Discussion

In discussing the findings, one should consider several important facts. The study data were taken from the folders of students who had used the Iowa State University Counseling Service between the years of 1945 and 1970. The folders chosen for the study were selected at random from the students' folders for each year. Generalizations should not be made to any other group.

Consideration should be given to the fact that the Counseling Service was continuously growing and developing for the entire period of the study. The rapidity of growth may be indicated by the fact that the Counseling Service grew from less than two counselors in 1939 to a major administrative division of the university since 1967. This growth brought about changes in growth, records, personnel and nature of operation for the Student Counseling Service.

The growth in enrollment and student housing introduced a Residence Hall Organization with its interest and activities in student life and problems.

The development of a broader curriculum in order to meet the needs of a growing student body required the services of a rather diverse group of student personnel workers.

It is very difficult to distinguish cause from effect in the study of student problems. The findings of the study are in agreement with the findings of the studies in the

review of research.

The findings indicate that there were significant differences in the characteristics of students who used the student counseling service in the three time periods. The percent of males using the counseling services decreased. The percent of females using the counseling services increased. There was an increase in the percent of students under 18 years of age using the counseling service. There was a decrease in the percent of students over 20 years of age using the counseling service. The number of freshmen and sophomores using the counseling service remained constant. The number of juniors and seniors using the counseling service decreased. The number of students using the counseling service one time declined and the number using the counseling service two or more times increased.

The number of tests taken declined over the 26 year period. The College of Engineering provided the largest number of students using the counseling service in each period. The number of students using the counseling services from the Colleges of Engineering and Agriculture declined, the number of students using the counseling services from the College of Home Economics remained constant and the number of students from the College of Science and Humanities increased.

For all three periods, there was an increase in the number of students from the dormitories using the counseling

services. There was a decrease in the number of students from the fraternities using the counseling services.

Students who lived in married housing, at home and off campus present a mixed pattern of use of the counseling services for the three periods. However, the number of students using the counseling services from these three groups was larger in the third period than in the first period.

The largest number of students using the counseling services reported the largest number of problems in the educational areas for the first period. The number of problems reported in the vocational and emotional areas increased in each period.

The findings also indicate that there were significant differences between the characteristics of students and the type of problems reported. Male students reported more educational problems than expected and the females reported fewer educational problems than expected. The male students reported fewer vocational problems than expected and the females more vocational problems than expected. The male students reported fewer emotional problems than expected and the females reported more emotional problems than expected.

Freshman students reported more problems than expected in each of the three categories. Sophomore students reported more educational problems than expected and fewer

vocational and emotional problems than expected.

Junior and senior students reported more educational and emotional problems than expected and fewer vocational problems than expected. Graduate students reported fewer educational and emotional problems than expected and more vocational problems than expected. More than 50 percent of the students with educational and vocational problems saw the counselor one time. More than 50 percent of the students with emotional problems saw the counselor two or more times. One student reported seeing the counselor 78 times.

Students reporting educational problems took about the expected number of tests. Students reporting emotional problems took fewer than the expected number of tests. The number of students from the College of Engineering reported more educational and fewer vocational and emotional problems than expected. The number of students from the other colleges reported fewer educational and more vocational and emotional problems than expected.

The findings of this study agree with the finding of Dugid's and Sharp's studies concerning the trend in type and frequency of problems. There was a decline in the number of educational problems and an increase with number of emotional problems. There was a larger number of counselor contacts with emotional problems.

The large number of student problems from the College of Engineering agree with the findings of the Astin study. He found that the student grading was more severe and that graduation was more difficult in engineering.

The increase in the number of student problems reported by students from the dormitories and the decrease in the number from the students from the fraternities may be the result of the residence halls using the student counseling service for problems and the fraternities developing their own counseling service. Astin reports that living on campus provides a much greater student impact than living off campus.

CHAPTER V. SUMMARY

The purpose of this study was to answer two questions:

Is there a relationship between sex, age, marital status, classification, number of contacts, number of tests taken, college, type of residence, occupation of father and the type of problems of the students who used the Iowa State University Counseling Service and the period of years 1945-1952, 1953-1961, and 1962-1970?

Is there a relationship between sex, age, marital status, classification, number of contacts, number of tests taken, college, type of residence, occupation of father of students who used the Iowa State University Counseling Service and the classification of type of problems as the following: educational, vocational, and emotional?

The following nineteen hypotheses were tested:

1. The sex of students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

2. The age of students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

3. The marital status of students who used counseling

service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was not rejected.

4. The classification status of students (freshman, sophomore, junior and senior, graduate) who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

5. The number of contacts by students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

6. The number of tests taken by the students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

7. The college classification of students who used counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

8. The type of residence (dorm, fraternity, student married housing, home, off campus apartments) of students who used counseling services at I.S.U. Counseling Center and

the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

9. The occupation of father of the students who used the counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was not rejected.

10. The type of problems of the students who used the counseling service at I.S.U. Counseling Center and the period of years (1945-1952, 1953-1961, 1962-1970) are unrelated or independent. This hypothesis was rejected at .01 level.

11. The sex of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent. This hypothesis was rejected at .01 level.

12. The age of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent. This hypothesis was not rejected.

13. The marital status of students who used counseling service at I.S.U. Counseling Center and type of problems (educational, vocational, emotional) are unrelated or independent. This hypothesis was not rejected.

14. The classification status of students (freshman, sophomore, junior and senior, graduate) who used counseling

service at I.S.U. Counseling Center and the type of problems (educational, emotional) are unrelated or independent. This hypothesis was rejected at .01 level.

15. The number of contacts of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent. This hypothesis was rejected at .01 level.

16. The number of tests taken by the students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent. This hypothesis was rejected at .01 level.

17. The college classification of the students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent. This hypothesis was rejected at .01 level.

18. The type of residence (on campus, off campus) of students who used counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are unrelated or independent. This hypothesis was not rejected.

19. The occupation of father of the students who used the counseling service at I.S.U. Counseling Center and the type of problems (educational, vocational, emotional) are

unrelated or independent. This hypothesis was not rejected.

The study covered a span of 26 years divided into three time periods 1945-1952, 1953-1961, and 1962-1970. A random sample of twenty student folders was drawn for each year - 520 folders. Information from the folders was recorded on a code sheet and transferred to IBM cards. The computer program SAS was used to organize the data into tables and to compute Chi-square values.

The tests of the hypotheses indicated that there were significant differences between the period of time 1945-1952, 1953-1961, and 1962-1970 and the variables of sex, age, classification, number of contacts, number of tests taken and college. The tests of the data on marital status and occupation of father indicated that they were unrelated or independent to the time periods.

The tests of the hypotheses indicated that there were significant differences between the type of problems (educational, vocational and emotional) and the variables of sex, classification, number of contacts, number of tests taken and college. The tests of the data on age, marital status, type of residence and occupation of father indicated that they were unrelated or independent of the type of problems.

Recommendations for Further Study

The following suggestions are the outgrowth of the writer's experiences with the study:

The study should be repeated using a sample of student folders drawn from the years 1970-1975. The number of folders drawn for each year should be increased. The data from the counselors information sheet should be more complete and cover more variables such as G.P.A., curriculum, and number of activities. A follow-up study of those who graduate and those who fail to graduate should be conducted.

Further study should be made in nature and trends in the problems reported by students.

A study should be designed to compare the college impact on students at Iowa State University with the findings reported by Astin in the book, "Four Critical Years".

The Warren Baller study should be repeated to determine the academic characteristics of the students who use the counseling service.

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APPENDIX: CODING SYSTEM

<u>Column No.</u>	<u>Coding Information</u>
1-3	Subject number
4-5	Year seen
6	Sex
7-8	Age
9	Classification:
	Freshmen 1
	Sophomore 2
	Junior 3
	Senior 4
	Graduate 5
	Other 6
10	Married status:
	Married 1
	Single 2
	Divorced 3
	Separated 4
	Widowed 5
11-12	Number of contact
13	College:
	Education 1
	Engineering 2
	Agriculture 3
	Home Economics 4
	Science and Humanities 5
	Others 6
14	Residence:
	Dorm 1
	Fraternity 2
	Married housing 3
	Home 4
	Off campus housing 5

<u>Column No.</u>	<u>Coding Information</u>
15	Occupation of father:
	Professional, technical 1
	Sale or service 2
	Farming 3
	Construction 4
	Factory worker 5
	Others 6
16-17	Number of tests taken
18-19	Reason for using service (problem)
	Curriculum 1
	Grade 2
	Test anxiety 3
	Study problem 4
	Readmission 5
	Vocational information 6
	Personnel 7
	Health 8
	Financing 9
	Sex, married & children 10
	Work anxiety 11
	Other 12