# PERSONALITY CHARACTERISTICS AND BACKGROUND 

INFORMATION WHICH DIFFERENTIATE

FRESHMEN COLLEGE STUDENTS AS

PERSISTERS OR DROPOUTS

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## CHAPTER I

## INTRODUCTION

Oklahoma Panhandle State University is a four-year college. The enrollment was approximately 1,400 in the Spring term of the 1969-70 academic year, and currently the total enrollment is about 1,000. However, the number of Home Economics majors has increased during the past five academic years. The number of majors in 1969 was 19 and currently home economics has about 40 majors. The concern is to maintain the enrollment in home economics at its present level or increase it.

Researchers have been trying to discern why so many students have dropped out of college. No one has been able to predict who will drop out nor the precise cause of the withdrawal. Greene (1966) wrote in Preventing Student Dropouts that dropouts are caused by a multiplicity of factors and that no one single factor can account for all dropouts. He thinks that because of the different combinations which are possible for any individual dropout, we need to know about all the factors related to dropping out of school. To effectively predict the potential dropout, each school system must develop an instrument built on known characteristics of dropouts from its system. According to this source, factors that could be considered when developing such an instrument are age, failure, attendance, home conditions, reading ability, intelligence, friends, disinterest in school, dissatisfaction with school, and participation in school activities.

According to Panos and Astin (1968), some reasons that women 1eft college were marriage, dissatisfaction with college, change in career interests, finances, and reconsideration of interests and goals. This particular study indicated that personal factors such as emotional problems, marriage, and financial problems had a greater influence upon student attrition than the academic environment.

An area of general concern that should be organized to facilitate the growth and development of students is testing. Schools should secure valid data about each student, and the use of tests is suggested by Schreiber (1964), who says:

There are two major reasons why counselors and teachers should be concerned with studying students: (a) to develop an understanding of students in order to provide them with needed help; (b) to help each student to understand himself, to grow in ability to solve his own problems effectively, and to achieve educational goals commensurate with his abilities.

The counseling program in schools utilizes test data to serve the above purposes. Counselors utilize test results directly in (a) counseling with students for decision making, (b) assisting students in selecting a vocation, and (c) helping students choose a school for further education (p. 127).

There is little valid information as to the methods of recruiting, the retention of students, and the personality characteristics of students at Panhandle State University. Present advisement involves either a personal contact with the teacher in a student's chosen major field or advisement by one of the two men employed in pubiic relations. Many times if the enrollment takes place during the summer, students, during the first semester, may be placed in all classes outside the major field of study and have no contact with teachers in the major they selected. After considering the information available about the students and lack of research on personality and background characteristics of
students enrolled as freshmen, it seemed that a study concerning the persisters and dropouts could be helpful and was needed.

## Statement of the Problem

What personality characteristics and background information distinguish freshmen college students as persisters or dropouts? The focus of this study was to establish criteria useful in differentiating the potential dropout or in predicting a student's persistence.

## Hypotheses

1. There will be no significant differences between persisters and dropouts as measured by scores on the Omnibus Personality Inventory with respect to each of the background characteristics listed below.
a. sex
b. marital status
c. employment status (hours employed)
d. size of community where reared the most years
e. number of schools attended
f. plans for completing a two-year degree or a four-year degree
g. plans for transferring
h. language spoken in the home
i. income of the family
j. education level of the father
k . education level of the mother
2. major field of study
m. religious preference
n. composite ACT score
3. There will be no significant differences between persisters and dropouts who are freshmen women home economics students and other freshmen women students as measured by the scores on the Omnibus Personality Inventory with respect to each of the background characteristics listed below.
a. maxital status
b. employment status (hours employed)
C. size of community where reared the most years
d. number of schools attended
e. plans for completing a two-year degree or a four-year degree
f. plans for transferring
g. language spoken in the home
h. income of the family
i. education level of the father
j. education level of the mother
k. major field of study
4. religious preference
m. composite ACT score

The statistical probability level acceptable for significance in this study was established as . 05 or better.

## Definition of Terms

Student attrition--a statistical reference to students who voluntarily withdrew, dropped out, or were academically dismissed from the institution (Dismuke, 1973).

Dropout--a student who was originally enrolled, who terminated the enrollment and was not enrolled at the beginning of the spring semester, 1975. A defaulter is a student who withdraws within the semester and will be a part of the dropouts for this study (Coffelt and Hobbs, 1964; Rose, 1965).

Persisters--those students who completed courses and enrolled for another semester. A transfer is a student who terminated the enrollment at one institution and in a subsequent semester enrolled at some other institution. For this study, transfers will be considered as persisters (Coffelt and Hobbs, 1964; Rose, 1965).

Background information--information obtained from each student about that person's past experience and about his or her family.

Definitions of Scales of the Omnibus Personality
Inventory

A detailed definition of the OPI scales is discussed in the review of literature. A simplified version of these scales follows.

1. Thinking Introversion--1iking for reflective thought, ideas and abstractions, and academic activities.
2. Theoretical Orientation--preference for dealing with theoretical matters and problems and for using scientific methods.
3. Estheticism--interest in, and sensitivity of response to, painting, sculpture, music, literature, and drama.
4. Complexity--tolerance or liking for flexibility in viewing and organizing phenomena with emphasis on the novel and experimental, as contrasted with a rigid or simplistic view. !
5. Autonomy--drive for personal independence, intellectual and political liberalism, and tolerance; freedom from judgmental or authoritarian thinking.
6. Religious Orientation--extent of involvement, commitment and belief in conventional religious doctrines and practices.
7. Social Extroversion--interest in seeking and enjoying social activities as contrasted with a tendency to withdraw from social contacts and responsibilities.
8. Impulse Expression--readiness to express impulses (including feelings of sensuality, rebellion, and aggression), and to seek gratification either in thought or in overt action.
9. Personal Integration--attitudes and behaviors that characterize the socially adjusted or integrated person as contrasted with the socially alienated or disturbed person.
10. Anxiety Level--freedom from symptoms of anxiety related to social maladjustment and poor self-concept.
11. A1truism-affiliation, trusting, and ethical concern for the feelings and welfare of others as opposed to a distant, impersonal view.
12. Practical Outlook--interest in the practical and utilitarian applications of ideas and things; tendency to set a high value upon material possessions and concrete accomplishments.
13. Masculinity-Femininity--Interests and attitudes common to members of one ${ }^{1}$ s sex.
14. Response Bias--an indicator of test-taking attitudes, reflecting the tendency to try to make a good or a bad impression.

Limitations of the Study

The initial limitation of the study was the selection of the sample. The Freshmen Orientation Class at Panhandle State University was the sample and no evidence is available that this was an average group.

Another limitation of this study was related to geography. Most of the participants were products of the area close to the college location. It was recognized that such variables as an agriculturally dominated economy, relatively low population concentration, and limited industrial output place definite limitations on making generalizations to other states or community populations.

## Basic Assumptions

1. Adviser's information about students included background information helpful in advising the student.
2. Advisers should be receptive to additional information about the students they advise.
3. The instruments used in the study should provide valid data on the differentiation of students' attrition.

## Procedures

Although a detailed account of the procedures for this study are discussed in Chapter III, a simplified version of the steps taken to accomplish the study follows:

1. Information gained from the review of literature was used in the development of the questionnaire items about background information of first-time freshmen college students. A questionnaire was developed, tested, and administered to determine the background information.
2. The researcher consulted with Panhandle State University adminịstration to seek approval to select the study population, consisting of 280 first-time freshmen college students. The students were enrolled in a Freshmen Orientation class at Panhandle State University.
3. The Freshmen Student Questionnaire and the Omnibus Personality Inventory were administered to the selected students during the second week of the Fall Semester of 1974. The Omnibus Personality Inventory was machine scored.
4. Information as to those who persisted and those who dropped out was obtained from records at the college during the Fall, 1974 semester and at the beginning of the Spring, 1975 semester. Marital status, major field of study, religious preference, and composite ACT score were taken from the Official Enrollment Card。
5. Individual follow up of those students not enrolling for the Spring, 1975 semester was necessary to determine whether they were persisters or dropouts. Transfers at the beginning of
the Spring, 1975 semester are termed persisters in this study. Persisters were the students requesting a transcript to be sent to another institution and indicating to the registrar's office plans to transfer. Each person not enrolling and not indicating plans to the registrar's office was called to determine whether to classify that student as a dropout or persister. The home phone number of the students was taken from the enrollment card. A call was made identifying the researcher. The question was, "Is (student's name) enrolled in an institution of higher education?" An answer of yes or no and usually the identification of where the student was enrolled were given. The person answering the phone was told "Thank you," and the conversation ended.
6. Data was tabulated and analyzed, using the multivariate analysis of variance to determine the significance of differences in the scores on the Omnibus Personality Inventory and the background information from the Freshmen Student Questionnaire between dropouts and persisters. The chi-square tests were used to summarize the differences in distribution found between at least two groups to determine whether there is a difference in the number of people responding in certain ways.
7. Based on the findings of the study, suggestions and recommendations were made which could be used for the advising and counseling of freshmen college students.

The statement of the problem, hypotheses, and other relevant information have been included.in this chapter. Chapter II contains a review of related literature, concerning background information of college students; dropouts, persisters, and personality characteristics. Chapter III describes the procedures of the study and includes the population, development of the instrument, selection of the test, and analysis of the data. The findings of the study are presented in Chapter IV. Chapter $V$ eontains the summary, conclusions, and implications of the study.

REVIEW OF THE LITERATURE

The American Home Economics Association printed Proposed Accreditation Documents for Undergraduate Programs in Home Economics (1970), which stated:

Entering students ultimately become the potential for continuation of the field. Therefore it is important that attention be given to their capabilities and professional motivation.

It is recognized that no single criterion for the admission of students can predict success or failure infallibly. However, it is generally accepted that defined or established national norms of standardized tests are of value in predicting academic achievement. Extra-curricular activities as well as characteristics noted by faculty and counselors are considerations helpful in predicting success or failure (p. 17).
There are many studies written about dropouts, attrition, and student characteristics. In this chapter literature will be presented concerning background information of dropouts and persisters, personality characteristics, and uses of the Omnibus Personality Inventory. (College faculties have an ethical concern for students as they try to understand the characteristics of the students attending the institutions. The following literature was selected because it relates directly to the problem of the study, which is to establish the personality characteristics and background information useful in identifying the potential dropout or predicting a student's persistence in college.

## Background Information of College Students

Background information is the collection of information on the student's family, past environment, and future plans, collected with hopes that the researcher can individualize programs and develop a better understanding of the student. One might be inclined to think that colleges have always tried to understand the students; however, as the following research will indicate, this has not always been the case.

In regard to student characteristics, The Chronicle of Higher Education (1974) summarized the 1974 college freshmen in a fact file. Almost four percent did not plan to receive a degree from a college, but six percent planned to obtain an associate degree and almost 31 percent planned a BA or BS degree. In a study by Coffelt and Hobbs (1964), in 1962 about 68 percent of the first time freshmen indicated a field of study leading to a BS or BA degree. One might conclude that some freshmen are enrolling in college for training without the intention of obtaining a degree or persisting.

The Chronicle of Higher Education (1974) indicated that the college freshmen have fathers with higher education levels than that of the mothers, even though more of the fathers indicated the category of "grammar school or less." Coffelt and Hobbs (1964) stated that the student who came from a family in which one or both parents were college graduates had a three in four chance of completing the freshmen year. These 1962 Oklahoma students dropped out of college at a 38 percent rate if neither parent had a college degree, a percentage which is about 10 percent higher than the rate of the student with at least one parent as a college graduate. In a study of 1,876 students enrolled in

California junior colleges in 1970 and 1971, Cohen and Brawer. (1970) found that more mothers of dropouts did not complete high school. The mothers of dropouts tended to have less education than the mothers of the persisting students. . Bolerjack (1964) found in a 1964 study that the educational level of mothers of college persisters was higher than the level of mothers of college dropouts. The higher the educational level of the student's parents, the more likely the student is to persist in college.

Bourgeois (1966) conducted a study of 211 students at the University of Southwestern Louisiana enrolled in Home Economics. The chisquare test was used to reveal that size of home town, religion, occupation of father, and language spoken in the home were all significant and could be assumed to relate to persistence of students in home economies. These students that found a group with similar background and environmental characteristics large enough for them to identify with were more likely to remain in college.

In this study, marriage was the most frequently listed reason for withdrawing from college. The Chronicle of Higher Education (1974) listed 13 percent of the 1974 college freshmen indicating a religious preference to be Baptist, while 10 percent indicated Methodist, 34 percent Roman Catholic, and 10 percent no response. Two percent of the college bound freshmen were married, and three percent were presently engaged, according to the fact index of The Chronicle of Higher Education (1974).

It is often believed that the undecided majors are the most probable dropouts. The Chronicle of Higher Education (1974) indicated that 15 percent of the 1974 freshmen stated they would probably change major
fields of study while 5 percent were undecided as to major field of study in college. Twelve percent planned to transfer to another college and two percent planned to drop out temporarily according to the fact file. At Oklahoma State University (1974) a 1973 survey found 64 percent of the dropouts had declared a major and 36 percent had not declared a major. Enrolling in college without definite plans for a major may lead to leaving college more often than enrollment with definite plans.

A survey reported in College-Bound Seniors, 1973-74 (1974) revealed that one-fourth of the freshmen were undecided about the degree they planned to complete and one-tenth were undecided as to a major field of study. About one-third of all 1974 high school graduates and twothirds of those going directly to college took the SAT tests, results of which are included in this pamphlet. The parental incomes fell into three roughly equal groups: . below $\$ 12,000$; between $\$ 12,000$ and $\$ 18,000$; and $\$ 18,000$ and more. The Coffelt and Hobbs (1964) study in 1962 found that the greater the parental income, the greater the persistence of college freshmen from those families. The dropout rate was 38 percent for students from families with income below $\$ 5,000$ with the rate of 32 percent from students in the family income bracket of more than $\$ 10,000$ annually.

Only 3 in 10 freshmen attending Oklahoma junior colleges in the fall of 1962 were women. Men outnumbered women two-to-one in higher education in Oklahoma in 1962 according to Coffelt and Hobbs (1964). The 1973-74 freshmen were the first group that included as many women as men, making up the College-Bound Seniors, 1973-74 (1974).

From one's reviewing the research concerning student characteristics, it is obvious that it is possible to describe the college students.

It appears, however, that the quality of this research regarding background information as applied to individual colleges is neglected.

Foley and Foley (1969) in The Campus Scene described the average college student. There were almost. 7,000,000 full-time college students in the United States. The students represented a cross section of life and background, in America. The parents of most of today's students had at least a high school education. Most parents believed a college education has become part of the necessary equipment for the attainment of material success. Girls were preparing for careers in business or companionship with their educated husbands. Many students commuted to the campus to save money or because they were married and lived close to the campus. These commuting students made up at least 40 percent of the college population. The income of most students' families was reported to be $\$ 12,000$ per year. The college degree was an economic necessity, but no longer is it the badge of the social or educated elite。

According to Von Hoffman (1966), college attendance was a universal experience in America. The word college was used to describe many institutions, and yet none offer the same kind or quality in education. The university experience is no longer available only to upper-class children, but is now open for a society of busy workers doing the important tasks needing to be done.

From these comments one many conclude that the characteristics of the students enrolled in colleges today have changed from those of the students a few years ago; today's students coming from different social, cultural, and economic environments. Students are enrolling in college without the intention of completing the requirements for a
degree. More students are undecided as to the major field of study when they enroll in college.

Bolerjack (1964) found that family background had little influence on college persistency while Bourgeois (1966) found that size of home town, religion, occupation of father, and language spoken in the home were all related to persistence of students.

All of the background characteristics listed in the previously mentioned literature, namely religion, marital status, size of home town, income level, educational level of the father and educational level of the mother, were used in this research. An attempt to see if these characteristics are significantly related to persistence and dropping out was made.

## Dropouts

One of the most comprehensive studies of college dropouts was conducted by the Department of Health, Education and Welfare under the supervision of Iffert (1957). The purpose was to determine the reasons why 13,700 students entered 149 institutions in the fall of 1950 as freshmen and the reasons for their dropping out within the four succeeding years. The major reasons for dropping out of college, given by these students, were primarily related to finding a temporary job, determining job goals, and training for a career. The desire to specialize in a particular field was ranked second by the university students but first by the students from technological institutions, junior colleges, liberal arts colleges, and teacher colleges. Females attached more importance to intellectual goals than to occupational preparation; the latter was more important to the males.

Iffert (1957) found that 39 percent graduated within the normal four-year period from the institution of first enrollment with the total attrition rates averaging 50 percent. First year students at public institutions had an attrition rate of 67 percent and private institutions' attrition rate was 52 percent. Women students listed marriage for the major reason for discontinuance. Employment was rated second in importance and personal financial difficulties ranked third in importance by these women students.

In this study by Iffert (1957) nearly 40 percent of the transfers occurred during, or at the end of, the first year, and more than 83 percent of the total occurred by the end of the second year. General dissatisfaction was ranked first in importance as the reason for transfer.

Iffert (1957) concluded that no more than 60 percent of all students who enter degree granting institutions receive degrees. Of the students in the upper half of their classes from secondary schools in the United States, about one-half go to college on a full-time basis and about three-fourths of them eventually receive a baccalaureate degree.

It should be emphasized that there are ways of encouraging students to remain in college. There have been means by which colleges were able to influence students to persist.

Rose (1965) identified prospective dropouts and divided them into control and experimental groups in a study conductied in Kentucky. One group was required to have six individual counseling interviews with the counseling staff over a 12-week period. This research indicated counseling can be a significant deterrent to dropping out of college.

Huber (1971) states that if educators are sincere in their commitment to serve the needs of individual students, in order for that student to obtain the highest level of need fulfillment and self-actualization, they must reassess and redirect the efforts of education. Colleges have oversold particular programs that were suitable for only a portion of the students considering the nature of interests, attitudes, and desires of a group.

Summerskill (1962) states that the reasons that students drop out are largely from failure to cope with psychological, sociological, or economic demands. He selected, as some reasons for discontinuing college, the following factors associated with dropouts: age at matriculation, sex, socio-economic factors, hometown location and size and financial difficulty.

Colleges graduate about 40 percent of those that begin in a fouryear period. Approximately 20 percent more graduate at a later date. Non-academic reasons are cited for the cause of more than 40 percent of dropouts. The student uses academic failure as a device for leaving school when the problems seem insolvable within college walls, according to Summerskill (1962).

Kauffman (1966) describes the dropout as a person with an idea about college life that appears so blatantly obvious that he cannot put up with college anymore; therefore, he drops out. The students felt uncomfortable and thought they were wasting time in a world of fantasy that was shadowed by trivia and semantic gymnastics. The student drops out of college to find the real world on the outside rather than compete in an environment of tensions in college life.

Attrition in home economics was studied by Bourgeois (1966) to find the number of students that withdraw from home economics. The sample was 211 students, 113 graduates and 98 non-graduates, who enrolled in the School of Home Economics at the University of Southwestern Louisiana during a ten-year period. Over this period withdrawals ranged from 42 to 75 percent with an average attrition rate of 60 percent. The attrition rate for freshmen was 45 percent; sophomores, 37 percent; juniors, 13 percent; and seniors, 5 percent. The study revealed that factors such as size of home town, religion, occupation of father, language spoken in the home and scores on the Purdue English Placement Test were all significant and assumed to be related to persistence of students in home economics. Reasons for transferring from home economics included interest and ability in another field, lack of interest, desire to attend a different college, dissatisfaction with faculty, lack of challenge in home economics course, and lack of counseling. Marriage was the most frequently cited reason for withdrawal from college.

Oklahoma State University recognized a need for better understanding of its students. In 1974 the Student Services Office for Oklahoma State University completed a statistical survey concerning the dropouts for the Spring Semester, 1973-74. The purpose of the study was to investigate ways of improving the services by the Student Services Office to entering freshmen. The reason Aery (1974) gave for the project was to help the advisers to understand the potential dropout. She stated the philosophy that the university has a responsibility to meet the diverse needs of students in an efficient and economical fashion.

The average attrition rate for all colleges at Oklahoma State University was 11 percent with home economics students having a 10 percent attrition rate. The total enrollment for the Fall Semester, 1973 was 4,064 in the freshmen class with six percent withdrawing within the semester and nine percent that did not return for the spring semester. Twenty-six percent of those not returning had a 3.0 or better grade point average. Sixty-four percent of the dropouts had a declared major and 36 percent had not declared a major.

The Oklahoma State University study also indicated that the reason ranked highest for withdrawal by these freshmen in home economics was personal with financial, health, and registrar tied for second place. The attrition rate of the total university for men was 15 percent and for women was 13 percent. In home economics 19 percent of those withdrawing were men and 14 percent were women. The Greek living groups had the lowest attrition rate as shown in Table I.

TABLE I
UNDERGRADUATE RETENTION BY LIVING GROUP

|  | Attrition |  |
| :--- | :---: | ---: |
| Living Group | Number | Percent |
| Greek | 56 | 3.22 |
| Off-Campus | 1076 | 13.35 |
| Residence Halls | 601 | 11.00 |
| Totals | 1733 | 27.57 |

Oklahoma State University is currently developing programs for students, such as the Alpha program, People program, etc. These types of programs are social activities with emphasis on academic performance that help orient the student into the college environment. Students who participate in such programs are less likely to become dropouts. The participants of the Alpha 73 program had a total attrition rate of only about nine percent as compared to eleven percent for all colleges. Of these 1,138 students, 81 were home economics majors. Only seven percent of the Alpha 73 participants enrolled in home economics withdrew with eight percent completing the fall semester and not returning and three percent dropping out during the fall semester.

In the October 23, 1974 The Daily $0^{\prime}$ Collegian (1974), the registrar's office records indicated that a larger than usual number of students had withdrawn from Oklahoma State University during the Fall, 1974 semester. The time of year that most students withdraw is early in the first semester.

The problem of dropouts has been of continuing concern to educators for many years. Why approximately half of the students drop out before they complete the degree has been the subject of many studies, but the answers are not adequate nor are they conclusive.

## Persisters

Persisters are defined by Cohen and Brawer (1970) as students who completed their first semester and either re-enrolled in the college or transferred to another college. A 1970 study of California community colleges--urban, suburban and rural--with a sample of 1,875 students found significant personality, ability and/or demographic differences
among individuals who persist in college. Persisters were more committed to the college environment. Persisters did not spend so much time in outside employment as dropouts. Persisters did not attend so many schools prior to the tenth grade as did dropouts. Mothers of persisters were more likely to have completed high school, this fact thus pointing to the influence of family on school persistence. Those that scored low on the Complexity Scale of the OPI were more likely to persist. This researcher indicated that the Complexity Scale reflects a general disregard for tradition rather than an ability to tolerate ambiguity。

A study of home economics students by Bolerjack (1964) found that dropouts and persisters came to college with similar abilities, values, and backgrounds. Persisters tended to have higher entrance scores and freshmen mean grade point averages than did the dropouts. Family background had little influence on college persistency. Educational level of the mother of college persisters tended to be higher than the level of mothers of the college dropouts. Students of both groups ranked preparing for an occupation, satisfying intellectual curiosity, developing socially, and using their own ideas as the values which were most important to them。

A need to increase the retention rate of home economics students was identified by Dismuke (1973) at Oklahoma State University. She conducted a study to identify certain methods and techniques useful in a program designed to increase the retention rate of home economics students by providing student-to-student assistance. A developmental program was conducted for a ten-week period during the 1973 Spring Semester at Oklahoma State University. The participants indicated a
willingness to participate, and biographical information was collected. The students were similar in the educational levels and occupational status of their parents, size of home communities, and size of high school, graduating class.

The Oklahoma State University students who participated in the program believed in its value to entering freshmen or to students who transfer to the university from other institutions. The upperclassmen assisted freshmen and sophomore students in making adjustments to the college environment by providing information the students needed. Resource materials were developed for use regarding home economics and the university programs, careers in home economics, study techniques, campus activities, and university services. Dismuke (1973) found that:

The greatest value of the developmental program was that it did provide for the majority of the participants a friendship with an upperclassmen who could assist them with small problems and answer questions which they might have concerning vocational decisions, personal matters, or university policies. Upperclassmen indicated the value of the assistants as being able to express verbally their professional goals and to become more committed to their vocational objectives (p. 70).

Goren (1970) recognized that the institutional pattern existing in many colleges is one factor that influences the transfer and dropout. Additional responsibility for their academic and social behavior is being assumed by the students. Transferring is a phenomenon increasing each year just as is a high dropout rate increasing each year. The reasons for transfer and non-persistence in American colleges are lack of motivation, poor work habits, and inadequate faculty support for the immature student. The attrition of college students is not simply due to that student's not being able to produce academically, according to Goren.

The studies by Coffelt and Hobbs (1964), compared with The Chronicle of Higher Education (1974) and College-Bound Seniors, 1973-74 (1974), indicated that students in 1962 were more interested in acquiring a degree than 1974 students. Cohen and Brawer (1970), Coffelt and Hobbs (1964), and Bolerjack (1964), all found that the educational level of the mother had a significant effect on persistence of the students. Bourgeois (1966) and The Chronicle of Higher Education (1974) histed religion and marital status as significant factors related to attrition. The size of the home town, the occupation of the father, and the language spoken in the home were all found to be significant by Bourgeois. Oklahoma State University Student Services (1974) :and The Chronicle of Higher Education (1974) state that an undeclared major is not a significant reason for dropping out of college. Coffelt and Hobbs (1964) found:a lower parental income in 1962 than found by College Bound Seniors, 1973-74 (1974). In regard to the average family income, both studies indicate that the greater the income, the more likely the student is to persist in college. More women are attending college a fact stated by both Foley and Foley (1969) and CollegeBound Seniors; 1973-74 (1974) compared with the 1962 survey.

Career plans and marriage, as well as financial problems, as the major reasons for dropping out were found by all studies conducted about college attrition. Rose (1965) found that the attrition rate could be lowered by use of counseling interviews. Dismuke (1973) used the student-to-student approach to reduce the dropout rate. These studies indicate that persisters have more motivation and better study and work patterns than those students that drop out. The family patterns are also more stable.

## Personality Characteristics

Personality was defined by Super (1949) as those characteristics that make up a group of traits, more or less integrated into a functioning unit. He felt that schools should guide students in vocational development. Society should bring the resources of the family and encourage self-appraisal of the student. If individual growth and development is utilized, continuity of contact with the students by school personnel will cause the reality of adequate planning. Educational programs which include development of adequate self-concepts in students, orientations of students for work, and understanding by students of self-concepts of vocational and occupational terms should be developed in schools and colleges. A series of interviews, spaced, and lasting about an hour, are the best guidance for development, both personal and vocational.

Guidance and counseling are ways to influence the students for a more meaningful life. Holland (1974), in an article "Vocational Guidance for Everyone," writes about counseling vocational students. He describes the assistance available at all kinds of institutions, including colleges and universities. Because counseling and teaching attract friendly people, they understand the needs of their clients and students. Holland further states:

Some experience and recent experiments strongly imply that most people want help, not love. In no case has an impersonal information or guidance system received lower average ratings than local counselors. To the contrary, most tests reveal that groups, mass testing and impersonal contacts are more highly rated as well as infinitely cheaper, have better attendance records, and are generally more dependable (p. 10).

Impersonal approaches are rated higher than local counselors. The compiling of information to better understand the student and to facilitate student growth should be helpful both to the college and to the student.

The timing for personality development of different kinds of characteristics may vary for different groups of students. Plant (1965) conducted a longitudinal study to determine whether or not there are changes in personality characteristics associated with college education. Three psychometric scales were used to study the college students or intended-to-be college students. The scales combined into 100 items representing 30 from the Total Ethonocentrism Scale, 30 from the Gough revision of the California F Scale, and 40 items from the Rokeach Dogmatism Scale. The research by Plant (1965) indicated that authoritarianism and dogmatism apparently are affected by college attendance even though some tendencies toward flexibility in these areas are shown by those that do not attend college. The following observation was made:
...of the 1958 and 1960 to 1962 comparisons concerned the direction of the differences in the scale means. Fifty-nine of the 60 possible comparisons are in the direction of decrease in mean scores, and this was irrespective of educational attainment during the four-year period. This was interpreted to mean that, with college aspiring youth who are intellectually able, it may be that personality characteristics in addition to intelligence develop over a longer period of time than had been hypothesized. The collegiate experience seems to facilitate this development (p. 285).

An implication of this study is that college students do mature more quickly than non-students in some ways, but they are not monopolizing this development.

Concerning personality, Sanford (1962) recognized the developmental status of the entering freshmen in college. As the student faced new
challenges offered by the education, the system of attitudes, values, conceptions and adaptive devices gave way. When confronted with challenges, the freshmen developed in a way that required new kinds of adaptive responses. These happenings result in the enlargement and further differentiation of the systems of the personality when the student is freed from the necessity of maintaining unconscious defensive devices. Unconscious motives and mechanisms; and a repertory of coping devices are available for each person, hopefully in adequate supply to meet the challenges of life. Each person can develop further when the conditions that necessitate development are present. The characteristics that the freshmen student has in common with other people may be just as important as those that make him different, when it came to planning the student's education.

Chickering (1971) wrote about numerous studies indicating changes which occur in attitudes, interests, values, future plans and aspirations, openness to impulses and emotions, personal integration, and intellectual ability of college students. College did make a difference even though changes were shared by others that did not attend college. A developmental period of young adulthood during which certain kinds of changes occur or strong potential for such change exists does seem to be experienced. Patterns that are established at this time of early adulthood tend to persist long into adulthood.

Chickering (1971) developed seven vectors of student development which were achieving competence, managing emotions, becoming autonomous, establishing identity, freeing inter-personal relationships, clarifying purposes and developing integrity. Colleges should take action to foster development along these dimensions.

Brawer (1973) defines functional potential as the degree to which a person incorporates various characteristics, offering a picture of the functioning individual in terms of the personal dynamics basic to the life style and behavior of the subject. She identified eleven major categories of the personality pattern, representing some of the most basic characteristics of the person, namely functional potential as it relates to values, dependent variables such as school withdrawal, persistence or transfer, demographic variables representing absolute and easily quantifiable dimensions, the environment, group cohesion, multiphasic characteristics, orientations, school directedness, significant others of family, peer, faculty, etc., and unconscious dynamics. These complex structures identify a person as an individual.

Colleges as social institutions must both tolerate and understand individual differences, for heterogeneity stimulates interests and talent and sometimes serendipitous events, and homogeneity breeds dullness and inflexibility (p.16) 。

Lehmann (1965) also indicated that personality traits may bear a relationship to the college students that persist. He suggests that persistence in college will depend on intellectual ability. It will also be affected by attitudes, values, motivation and interest. He suggests that personality characteristics may bear a relationship with choice of major, change of major, scholastic performance and persistence in college. There is still a need to learn about the learning process and about the behavior of human beings. Assistance in explanations will be useful if more reliable instruments and more sophisticated research designs are developed.

Cross (1971) writes that the home and school experiences of the college students have a profound effect upon the attitudes and values
they hold．The students enrolled in colleges in the 1970＇s have had experiences different from those of the traditional students of the past．She compared and found that some had persisted in school despite test scores and predictions of poor performance because they had modi－ fied behavior patterns and adapted to the demands of the schools．New students have a different orientation to school learning tasks than the traditional students。

Jacob（1957）stated that a student＇s response to education is closely related to his or her personality．He stated further：

A course or curriculum，a teacher，or even a college as a whole，will affect students differently，depending on what type of persons they are．The educational impact is twisted and re－directed by its collision with a par－ ticular student＇s personality．The personality acts as a filter，allowing only certain elements from the educa－ tional process to get through to the student and influence him（ p ．118）。

Individual differences should be carefully assessed and new methods should be developed for fulfilling individual potential．Researchers have been able to identify different personality characteristics for persisters and dropouts．Colleges should accept the responsibility for the education of all citizens rather than for only those that are traditionally oriented．There is a great need to learn more about the effects of personality characteristics on individual college students． Omnibus Personality Inventory

The OPI was developed to assess the attitudes，values，and interests of college students in the areas of normal ego－functioning and intellec－ tual activity．It has been used by large numbers of colleges and uni－ versities to assess the college students and to predict the student performance。

The following are definitions of the fourteen scales of the OPI. The measured characteristic is generally defined in terms of a description of high scores; the logical opposite of this description would, in most cases, characterize low scorers. Heist and Yonge (1968) gave the following descriptions.

1. Thinking Introversion (TI)-43 items: Persons scoring high on this measure are characterized by a liking for reflective thought and academic activities. They express interests in a broad range of ideas found in a variety of areas, such as literature, art, and philosophy. Their thinking is less dominated by immediate conditions and situations, or by commonly accepted ideas, than that of thinking extroverts (low scorers). Most extroverts show a preference for overt action and tend to evaluate ideas on the basis of their practical, immediate application or to entirely reject or avoid dealing with ideas and abstractions.
2. Theoretical Orientation (TO)-33 items: This scale measures an interest $i n$, or orientation to, a more restricted range of ideas than is true of TI. High scorers indicate a preference for dealing with theoretical concerns and problems as well as for using the scientific method in thinking; many are also exhibiting an interest in science and in scientific activities. High scorers are generally logical, analytical, and critical in their approach to problems and situations.
3. Estheticism (Es)-24 items: High scorers endorse statements indicating diverse interests in artistic matters and activities and a high level of sensitivity and response to esthetic
stimulation. The content of the statements in this scale extends beyond painting, sculpture, and music, and includes interests in 1iterature and dramatics.
4. Complexity (Co)-32 items: This measure reflects an experimental and flexible orientation rather than a fixed way of viewing and organizing phenomena. High scorers are tolerant of ambiguities and uncertainties; they are fond of novel situations and ideas. Most persons high on this dimension prefer to deal with complexity, as opposed to simplicity, and very high scorers are disposed to seek out and to enjoy diversity and ambiguity.
5. Autonomy (Au)-43 items: The characteristic measured by this scale is composed of liberal, non-authoritarian thinking and a need for independence. High scorers show a tendency to be independent of authority as traditionally imposed through social institutions. They oppose infringements on the rights of individuals and are tolerant of viewpoints other than their own; they tend to be realistic, intellectually and politically liberal, and much less judgmental than low scorers.
6. Religious Orientation (RO)-26 items: High scorers are skeptical of conventional religious beliefs and practices and tend to reject most of them, especially those that are orthodox or fundamentalistic in nature. Persons scoring around the mean are manifesting a moderate view of religious beliefs and practices; low scorers are manifesting a strong commitment to Judaic-Christian beliefs and tend to be conservative in general and frequently rejecting of other viewpoints.
7. Social Extroversion (SE)-40 items: This measure reflects a preferred style of relating to people in a social context. High scorers display a strong interest in being with people, and they seek social activities and gain satisfaction from them. The social introvert tends to :withdraw from social contacts and responsibilities.
8. Impulse Expression (IE) -59 items: This scale assesses a general readiness to express impulses and to seek gratification either in conscious thought or in overt action. High scorers have an active imagination, value sensual reactions and feelings; very high scorers have frequent feelings of rebellion and aggression.

9: Personal Integration (PI) -55 items: The high scorer admits to few attitudes and behaviors that characterize socially alienated or emotionally disturbed persons. Low scorers often intentionally avoid others and experience feelings of hostility and aggression along with feelings of isolation, loneliness, and rejection.
10. Anxiety Level (AL)-20 items: High scorers deny that they have feelings or symptoms of anxiety, and do not admit to being nervous or worried. Low scorers describe themselves as tense and high-strung. They may experience some difficulty in adjusting to their social environment and they tend to have a poor opinion of themselves.
11. Altruism (Am)-36 items: The high scorer is an affiliative person and trusting and ethical in his relations with others. He has a strong concern for the feelings and welfare of people
he meets. Low scorers tend not to consider the feelings and welfare of others and often view people from an impersonal, distant perspective.
12. Practical Outlook (P0)-30 items: The high scorer on this measure is interested in practical, applied activities and tends to value*material possessions and concrete accomplishments. The criterion most often used to evaluate ideas and things is one of immediate utility. Authoritarianism, conservatism, and non-intellectual interests are very frequent personality components of persons scoring above the average.
13. Maseulinity-Femininity (MF)-56 items: This scale assesses some of the difference in attitudes and interests between college men and women. High scorers (masculine) deny interests in esthetic matters, and they admit to few adjustment problems, feelings of anxiety, or personal inadequacies. They also tend to be somewhat less socially inclined than low scorers and more interested in scientific matters. Low scorers, besides having stronger esthetic and social inclinations, also admit to greater sensitivity and emotionality.
14. Response Bias (RB)-28 items: This measure, composed chiefly of items seemingly unrelated to concept, represents an approach to assessing the student's test-taking attitude. High scorers are responding in a manner similar to a group of students who were explicitly asked to make a good impression by their responses to these items. Low scorers, on the contrary, may be trying to make a bad impression or are indicating a low state of well-being or feelings of depression.

The following studies used the Omnibus Personality Inventory in order to better understand the students in those studies. This instrument was developed for research on student growth and development.

McConnell and Heist (1962) state that the college student will appear more introverted on the OPI than persons of the same age that do not attend college. The college students' scores show they are more socially mature, more responsible, less authoritarian and more tolerant, less impulsive and more motivated than high school students. College students are more mature and have developed an interest in academic and intellectual activities.

Rose and Elton (1966) used the Omnibus Personality Inventory and found that dropouts were clearly distinct in personality traits from other groups. They discovered that dropouts were the most maladjusted; had less interest in literature, art, and philosophy; were illogical, irrational, uncritical, and disliked reflective and abstract thought. They suggest that in order for counselors to serve effectively, a delineation of personality characteristics could be made in separating defaulters from dropouts and transfers. Defaulters were the withdrawing-within-semester freshmen students.

Hannah (1969) studied the personality differentials of dropouts and persisters in small colleges. . He found differences on several scales of the OPI. He concluded the following:

1. Individuals of both sexes who think at a less simplistic level; who exhibit great tolerance of ambiguity and experimentation; who tend to express impulses in terms of overt action; who are more hostile, aggressive and anxious; and who tend to create poorer personal impressions will more likely than not be found among dropouts:
2. Female students who are more independent, who tend to express hostility and aggression, and who are more apt to withdraw from social contact and responsibility are more likely to be found among those who drop out of colleges during their first two years.
3. Persisting students, both male and female, are likely to have significantly higher scores as measured by standardized aptitude tests than do leavers.
4. Individuals who have less tolerance for diverse thinking, who are more conforming, who have a greater tendency to accept authority, who are less apt to express hostility and aggression, whose anxiety levels are lower, and who are more cautious are more likely to remain in college during the first two years (pp. 19-20).

Cross (1971) reported a study of the intellectual values of college students by Heist and Yonge. They found significant differences between the sexes on four of the OPI scales. The women scored higher on fondness for working with ideas and abstractions in a variety of literature, art, and philosophy and on esthetic appreciations. Men in this study scored higher on interest in theoretical problems and the use of scientific methods in thinking. Both sexes scored similarly in flexibility and tolerance for ambiguities and uncertainties.

Cohen and Brawer (1970) administered the OPI, the AdaptiveFlexibility Inventory and a biographical questionnaire to 259 junior college students. The purpose was to identify personality, ability, or demographic characteristics that differentiate college dropouts from persisters. The OPI was given during the first semester and after the second semester was completed. They found the mean for the Thinking Introversion scale was significantly higher for the first-semester dropout than for the second semester dropout. The second semester dropout's mean was significantly higher on the Estheticism scale. The mean for
second-semester dropouts was higher on the Interest Orientation scale than that for the first-semester dropout.

Personality measures point toward identifying the student that persists or drops. The early dropout may be more inclined toward artistic interests than those who persisted to the end of the first year, according to Brawer. Hannah found them uncreative and Rose and Elton identified a low interest in artistic matters.

Brawer (1973) reported on a study referred to as the 3-D study of 1,876 students divided into three groups in relation to the OPI profiles. The groups were divided according to life style and behavior patterns. She found a significant relationship existed between the OPI profiles and the groups on all but one of the 14 OPI scales. She concluded that the approach of analysis of an individual in terms of the life style and behavior patterns was a valid way of measuring ego processes. Community colleges should find nontraditional ways of deal-  ing with their students in order to enhance development. The scores of these 3-D students fell below the OPI norm on all but the Impulse Expression and Practical Outlook scales. She evaluated this as meaning that a need existed for substantial changes in school programs. The 3-D study was the abbreviation for "The Project for the Design, Development, and Dissemination of Research Models for Junior Colleges."

Chickering (1971) directed a program to investigate student development in 1965. Thirteen small colleges participated by giving the freshmen students the OPI and other instruments during the first week of school. He concluded that a major influence on student development is the clarity of institutional objectives and internal consistency with which they are implemented and operate. Most colleges have developed
their own purposes and goals which allow students to choose one that suits their needs.

Heist and Yonge (1962) constructed the OPI to: "assess selected attitudes, values, and interests, chiefly relevant in the areas of normal ego-functioning and intellectual activity" (p. 1). It is possible to identify significant personality characteristics by using the OPI as the educational performance criteria. Academic achievement has been used in the past to identify those who will succeed at different levels in educational institutions.

## Summary of Review of the Literature

Most of the studies dealing with attrition emphasize the numbers of students, that drop out or persist. The emphasis of these studies tended to be on the loss of students rather than on student development.

Ford and Urban (1966) stated that any university that chooses to do so can make a major reduction in the proportion of its students who drop out, unless that proportion is already quite small. Coffelt and Hobbs (1964), Cohen and Brawer (1970), Summerskil1 (1962), Kauffman (1966), Bouregoịs (1966), and Bolerjack (1964) all conducted studies that delved into the types of students that drop out and persist in educational institutions. Bolerjack. (1964) found that the family influences were less significant than did the other studies, a finding which showed that the students in those samples rank highly in preparing for an occupation, satisfying intellectual curiosity, developing socially, and using their own values.

These research findings have led to the conclusion that colleges do not do as much for the student as they should to foster the individual
development. The Student Services Department at Oklahoma State University (1974) was striving toward student development as suggested by Goren (1962) 。

The OPI has been used to assess the student body of colleges and universities and to predict student performance. Rose (1965) was able to identify the dropouts. She found that counseling was a deterrent to the dropout. The OPI was used to develop profiles for the student by McConnell and Heist (1962) in a study that showed college students as more introverted than persons who did not attend college. Rose and Elton (1966) found that dropouts were the most maladjusted, lacked interest in the humanities, were illogical, and disliked reflective and abstract thought. The research by Hannah (1971) showed the scales Complexity, Impulse Expression, Personal Integration, Anxiety Level, Altruism, and Response Bias were significant measures of personality traits of the college dropout. Women scored higher on Thinking Introversion and Estheticism while men scored higher on Theoretical Orientation and Complexity as reported by Cross (1971). Cohen and Brawer (1970) found Thinking Introversion, Estheticism and Intellectual Orientation as, significant measures of those that drop out. It is possible to identify statistically significant characteristics of dropouts and persisters using the OPI。

There appears to be a general consensus that the college students are influenced by the environment; then they set goals and values on the educational situation. Most studies are striving for a better way of understanding the diverse ways in which students function. Each individual institution should develop a method of appropriate programs for aiding the individual students in their development.

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CHAPTER III

METHODOLOGY

The purpose of this study is to establish the personality factors and background characteristics unique to college students that dropout and persist. The investigation was conducted in the following manner: (1) the population was defined; (2) the Omnibus Personality Inventory was selected; (3) the Freshmen Student Questionnaire which included background characteristics was developed; (4) the method of analyzing the data was described; (5) the Omnibus Personality Inventory and the Freshmen Student Questionnaire were administered to the population; and (6) the data was analyzed and recommendations written. This chapter will explain the procedure followed in each phase of the study.

## Selection of the Population

All students in this study were selected from the Oklahoma Panhandle State University, Goodwell. It is only one of several state-supported colleges in Oklahoma offering home economics. The availability of the students at Panhandle State University was a prime consideration in selecting the population.

The 280 subjects were selected in the following manner. Since all freshmen students were enrolled in a Freshmen Orientation class, it was determined that those freshmen students could be the population for this research project. The college President, the Dean of Instruction, and
the instructor of the Freshmen Orientation class were all contacted for permission to give the Omnibus Personality Inventory and the Freshmen Student Questionnaire during the second class period of the Fall, 1974 semester. Permission was granted.

## Selection of Omnibus Personality Inventory

An ERIC search of literature was made for studies related to college students. Key words searched were college students, transfers, dropouts, and dropout attitudes. Literature from this search was reviewed and a list was made of tests being used in studies to predict success in college。

The test used the greatest number of times was the Omnibus Personality Inventory, subsequently referred to as the OPI. A copy of the manual and a sample test were acquired from the Bureau of Tests and Measurements at Oklahoma State University. Two professionals at Oklahoma State University and two from Panhandle State University were contacted as to their opinion of the OPI. For the purpose of identifying normal personality characteristics, all had favorable impressions of both the instrument and the company producing it.

A study of the Omnibus Personality Inventory Manual; Form F, (1968), was made in regard to use, validity and reliability. The costs of the test booklets, score sheets, scoring and other services of the company were reviewed. The researcher received a scholarship that would aid in the costs of machine scoring. The plan for the research project was presented to the researcher's advisory committee and the use of the OPI was approved.

## Description of OPI

The OPI (Form F) is a multiseale personality inventory that was developed to assess personality characteristics of normal college students. This true-false answer inventory was found by Heist (1968) to be valuable in evaluating entering college students. Scores are obtained on 14 scales from 385 items in the OPI.

The fourteen OPI scales developed for assessing the attitudes, values, and interests of college students are the following: thinking introversion, theoretical orientation, estheticism, complexity, autonomy, religious orientation, social extroversion, impulse expression, personal integration, anxiety level, altruism, practical outlook, masculinityfemininity, and response bias. For a detailed description, see Chapter II。

The validity of the OPI has been tested by many pieces of research. In a review by Coan (1972) in the Seventh Mental Measurements Yearbook, the realm of intellectual orientation was cited as a strength and the disadvantage cited was the lack of an optimal measure of all the variables that it purports to tap. The review by Paul McReynolds (1972) indicated that the strong points of the OPI are greater than the weak points. The problem of adaptation of young people to the college environment was the purpose stated for research.

According to McReynolds, the 14 scales fall into six groups: (1) primary intellectual scales; (2) social-emotional adjustment; (3) authoritarian-nonauthoritarian orientation; (4) altruism; (5) practical outlook; and (6) masculinity-femininity. The Intellectual Disposition Category or a fifteenth score can be obtained by a combination of Thinking Introversion (TI), Theoretical Observation (TO), Estheticism
(Es), Complexity (Co), Autonomy (Au), and Religious Orientation (RO). The instrument was found to be valid by the reporting of a large number of correlations with other inventories in the manual. Some of the inventories reported were California Psychological Inventory, Strong Interest Blank, Edwards Personal Preference Schedule, and Minnesota Multiphasic Personality Inventory (1972).

The instrument appears to have adequate reliability. The range of the split-half estimates of internal consistency range from 173 to . 91 . The K-R 20 method of estimating the internal consistency was also used. The assumption is that all items in the test have approximately the same degree of difficulty. The formula is:

$$
r_{t t}=\left(\frac{n}{n-1}\right)\left(\frac{\sigma t^{2}-n p q}{\sigma \cdot t^{2}}\right)
$$

The figures ranged from .67 to .89 obtained from the total standardization sample。

When selecting a commercial test, the researcher should select one that has norms established which are similar to the norms of the students to be used in the research project. The Omnibus Personality Inventory Manual, Form $F$ (1968) gave the test-retest values and Intellectual Disposition Category classification obtained from small size samples. The norms were given as a standard score and were taken from 7,383 students at 37 institutions located in 14 different states in 1967: In looking at current enrollments the researcher found that 13 of these schools currently have an enrollment of less than 1,000 . Therefore, the norms have been established in institutions similar in size to the one used in this study.

## Development of the Freshmen <br> Student Questionnaire

The next phase of this study was to list the background characteristics identified in previous studies. Those characteristics that had been found to be significant predictors in other research projects were included in this questionnaire.

This list of background characteristics was presented to a class of graduate students, some of whom had had previous college teaching experience. They were asked for their opinions as to relevance, need, wording of the questions, order of items, and additions or deletions. The questionnaire was revised and presented to the researcher's advisory committee. The committee suggested adding the categories of "credit beyond the Master's degree" under the educational level of father and mother and "do not know" under the estimate of the parents' income. These items were added.

The questionnaire was refined through a pilot study in which 18 freshmen students completed the form. These were students at Panhandle State University in the spring of 1974. They made suggestions to improve the questionnaire so it would be more effective to those that would answer it. The question "Do you plan to obtain a degree at Panhandle State?" with a yes or no answer was followed by an open ended question, "What degree do you plan to obtain at Panhandle State?" It was changed to a space for a check mark as they tended to write in the major field of study. The question, "What is the language that is spoken in your home?" was changed to a check that included "English, Spanish, German, and Other (Please list.)" A statistician was consulted as to the format of the questionnaire. He made suggestions for
form to facilitate card punching. The questionnaire was reviewed and revised by the researcher's advisory committee and approved for printing. (See Appendix A.)

Some information did not need to be obtained by use of the questionnaire, because it was already available in enrollment information available at the college. These items were ACT Composite score, college major, and church preference. (See Appendix B.)

Collection of the Data

The student's name was recorded on the answer sheet for the OPI. It was : believed that the students might be more honest in their answers if a name was not asked on the Freshmen Student Questionnaire. The answer sheets and questionnaires were coded within the range of 1 to 300 and this number became the student's identification number for the study. Names were transferred from the OPI answer sheet to the questionnaire.

Data were collected from 280 freshmen students enrolled in the Freshmen Orientation class at Panhandle State University on September 4, 1974. The students were each given a copy of the Freshmen Student Questionnaire, OPI Question Booklet, and OPI Answer Sheet. Five monitors assisted the researcher in distribution of supplies and in collecting the questionnaire, answer sheet and booklet when the students had finished. The information was obtained in one sitting, in one large auditorium. The estimated time of testing was one hour, but actual time spent ranged from one hour and 15 minutes to two hours.

Testing instructions outlined in the manual for the OPI were followed closely by the researcher. Questions asked were in regard to the name grid on the OPI Answer Sheet.

The ACT Composite Scores were obtained from the Director of Counseling and the college major and church preference were transferred from the enrollment cards in the Office of the Dean of Instruction. These scores were recorded on the top margin of the Freshmen Student Questionnaire. The identification of whether the student persists or drops out was recorded on the bottom margin of the questionnaire. Cards were punched from the Freshmen Student Questionnaire and sorted with the cards obtained from the Psychological Corporation, giving the results of the OPI on each student. Students who desired a personal interpretation of the OPI were provided this service by the counseling staff at Panhandle State University.

## Analysis of the Data

The multivariate analysis of variance technique was used to test the hypotheses. The chi-square test was also used to analyze the data when it further clarified the statistical findings.

According to Kirk (1968) when it is necessary to evaluate two or more dependent variables simultaneously, a multivariate analysis of variance design can be used. Kerlinger (1964) states many writers argue that of all methods of analysis, multivariate methods are the most powerful and appropriate for behavioral, scientific, and educational research. Bock (1966) writes that multivariate analysis of variance is appropriate to scientific problems of detecting and
characterizing differences ameng experimental groups on many variables simultaneously.

Some advantages of the multivariate, according to Kerlinger (1964), rest on the idea that behavioral problems cannot be solved with a bivariate approach when the problems are almost all multivariate in nature. Design and analytic tools are required, such as calculators and computers that are capable of handling the complex problems caused by the multiplicity of independent and dependent variables resulting from the complex psychological and sociological phenomena of education. The use of the computer to perform the heavy computations that are required appears necessary with the use of the multivariate analysis of variance.

The chi-square formula below :was used.

$$
x^{2}=\sum_{i=1}^{k} \cdot \frac{\left(o_{i}-e_{i}\right)^{2}}{E_{i}}
$$

where
$o_{i}=$ observed number of cases eategorized in its category
$E_{i}=$ expected number of cases in its category
$\frac{k}{\sum_{i}=1}=$ directs one to sum over all (k) categories

In general, for the cases, When $E_{i}^{\prime}$ s are specified, $d f=k-1$, where K stands for the number of categories in the classification (df refers to degrees of freedom which by its size reflects the number of observations that are free to vary after certain restrictions have been placed on the data).

This chapter has described the methodology and design of this study. The sample consisted of the students enrolled in the Freshmen

Orientation class at Panhandle State University during the Fall, 1974 semester. The selection of the Omnibus Personality Inventory was made and the Freshmen Student Questionnaire was developed. The OPI and the Freshmen Student Questionnaire were administered in one sitting during a class period. They required approximately an hour and a half of time. The statistical treatment of the hypothesis statements was the multivariate analysis of variance. The chi-square test was used to describe the persisters and dropouts. Chapter IV will give a detailed description of the analysis of data and Chapter $V$ will give the summary, findings, and conclusions.

## PRESENTATION AND ANALYSIS OF THE DATA

## Introduction

The findings for this research are described in this chapter in view of the problem of this study, which was to distinguish freshmen college students as persisters or dropouts by use of personality characteristics and background information.

These findings resulted from the investigation of the sample and the testing by multivariate analysis of variance to establish the level of significance and the chi-square test to determine whether the variables are related or independent.

## Description of the Sample

The sample for this study was made up of the students enrolled in the Freshmen Orientation class during the Fall semester, 1974 at Oklahoma Panhandle State University. There were 280 responses obtained or 100 percent of the course enrollment. Three of the responses were excluded from the study because the Freshmen Student Questionnaires were either lost during punching or values were missing for one or more variables needed by the procedure in computing. Two of those deleted were from men and one was from a woman student.

The final sample for this study, used for hypothesis one, was made up of 277 freshmen students from all divisions of the university who were enrolled in the Freshmen Orientation class. The final sample for hypothesis two was made up of 106 women enrolled in the Freshmen Orientation class. By using the class, it was possible for the researcher to reach a greater number of the freshmen students.

## Determination of Persisters and Dropouts

This study was comprised of 248 persisters. At the time of enrollment, 234 students enrolled for the 1975 Spring Semester. Fourteen students who had been enrolled during the Fall, 1974 Semester transferred to other colleges or universities at the end of the semester. Of the 14, nine of these students had left information in the registrar's office, while five were called on the telephone to verify their transferring. Three persisters were eliminated from the final sample.

Thirty-two dropouts were identified for this study. During the Fall, 1974 Semester, three dropped out during the semester. The registrar's office had records that indicated 21 students had dropped out at the end of the Fall, 1974 Semester. Eight telephone calls were made to students to confirm their dropping out.

## Differences Among OPI Scores and Background

## Characteristics

In order to reveal diversity among groups, the two null hypotheses, each with subhypotheses, were used for testing. When the analysis of variance yielded an "F" value which was statistically significant at
the. 05 level, the null hypothesis was rejected and the differences were said to be due to the differences in the sample.

## Description of Persisters and Dropouts

The chi-square test was used to analyze the persisters and dropouts separately by each of the background characteristics. The chi-square tables compare the frequencies of the persisters and dropouts by the background characteristics to the expected frequencies for each category. The $N$ may vary because of b1ank and no response coding.

Sex (Table II). It appeared that the number of dropouts who were female was close to the same percentage as the number of dropouts who were male. Therefore the chi-square value was not significant in this test.

TABLE II

CHI-SQUARE VALUES OF ATTRITION IN RELATION TO SEX

|  | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | No. | \% | No. | \% | No. | \% |
| No Response | 2 | 1 | 0 | - | 2 | 0 |
| Female | 94 | 38 | 14 | 44 | 108 | 39 |
| Male | 151 | 61 | 18 | 56 | 169 | 61 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $\mathrm{x}^{2}=.61$ | $\mathrm{d}_{0} \mathrm{f}$ 。 $=2$ |  |  |  | $\mathrm{p}^{>} \mathrm{x}^{2}=.72$ |  |

Marital Status (Table III)。Shown in this table, the largest percentage of dropouts in relation to persisters was in the single group, except where the numbers were so small as in the divorced and engaged categories. The chi-square test was not significant in this characteristic。

TABLE III
CHI-SQUARE VALUES OF ATTRITION IN RELATION TO MARITAL STATUS

|  | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marital Status | No. | \% | No. | \% | No. | \% |
| Single | 226 | 92 | 25 | 78 | 251 | 90 |
| Engaged | 3 | 1 | 2 | 6 | 5 | 2 |
| Married and Living With Spouse | 16 | 16 | 4 | 13 | 20 | 7 |
| Divorced | 1 | 1 | 1 | 3 | 2 | 1 |
| TOTAL | 246 | 100 | 32 | 100 | 278 | 100 |
| $\mathrm{x}^{2}=9.06$ | d | $=4$ |  |  |  | . 06 |

Hours Employed (Table IV). The data in Table IV disclosed the results of statistically comparing the persisters and dropouts in the "hours employed" groups. No significant difference was found. Most
of the dropouts were in the "no response" group. Six percent of the persisters compared with 16 percent of the dropouts indicated 16 to 20 hours employed.

TABLE IV
CHI-SQUARE VALUES OF ATTRITION IN
RELATION TO HOURS EMPLOYED RELATION TO HOURS EMPLOYED

| Number of Hours Employed | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \% | No. | \% | No. | \% |
| No Response | 174 | 71 | 22 | 69 | 196 | 70 |
| Uncertain | 9 | 4 | 0 | - | 9 | 3 |
| 1-5 | 1 | 0 | 0 | - | 1 | 1 |
| 6-10 | 13 | 5 | 1 | 3 | 14 | 5 |
| 11-15 | 9 | 4 | 1 | 3 | 10 | 4 |
| 16-20 | 15 | 6 | 5 | 16 | 20 | 7 |
| 21-25 | 4 | 2 | 0 | - | 4 | 1 |
| 26-30 | 7 | 2 | 0 | - | 7 | 3 |
| 31-35 | 6 | 2 | 0 | - | 6 | 2 |
| 36 or more | 9 | 4 | 3 | 9 | 12 | 4 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $\mathrm{x}^{2}=10.33$ |  | $=10$ |  |  |  | $=.41$ |

Size of Community (Table V). Table V disclosed that about 40 percent of the students in this sample were from towns and 47 percent were from rural areas. However, all but one of the dropouts were from towns and rural areas. The chi-square value was not significant in this test.

TABLE V

CHI-SQUARE VALUES OF ATTRITION IN
RELATION TO SIZE OF COMMUNITY
WHERE REARED THE GREATEST
NUMBER OF YEARS.

|  | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size of Community | No. | \% | No. | \% | No. | \% |
| No Response | 4 | 2 | 0 | - | 4 | 1 |
| Rural Area (Open Country, Farm) | 99 | 40 | 13 | 41 | 112 | 40 |
| Town (Under <br> 20,000 Population) | 111 | 45 | 18 | 56 | 129 | 47 |
| $\begin{aligned} & \text { City (20,000 to } \\ & 100,000) \end{aligned}$ | 25 | 10 | 0 | - | 25 | 9 |
| Large City (More than 100,000) | 8 | 3 | 1 | 3 | 9 | 3 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $\mathrm{x}^{2}=4.52$ | d.f. $=5$ |  | p $x^{2}=.48$ |  |  |  |

Number of Schools Attended (Table VI). The findings presented in Table VI revealed that most of the dropouts had attended three or fewer schools. This might indicate that those who had moved more often adjust to the college scene with greater ease.

TABLE VI

CHI-SQUARE VALUES OF ATTRITION IN RELATION TO THE NUMBER OF SCHOOLS ATTENDED

| Number of Schools Attended | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \% | No. | \% | No. | \% |
| 1 | 80 | 32 | 11 | 34 | 91 | 32 |
| 2 | 52 | 21 | 5 | 17 | 57 | 20 |
| 3 | 39 | 16 | 11 | 34 | 50 | 18 |
| 4 | 17 | 7 | 1 | 3 | 18 | 6 |
| 5 | 15 | 6 | 2 | 6 | 17 | 6 |
| 6 | 10 | 4 | 1 | 3 | 11 | 4 |
| 7 | 6 | 2 | 0 | - | 6 | 2 |
| 8 | 1 | 1 | 0 | - | 1 | 1 |
| 9 | 10 | 4 | 0 | - | 10 | 4 |
| 10 | 3 | 1 | 0 | - | 3 | 1 |
| 11 | 2 | 1 | 0 | - | 2 | 1 |
| 12 | 9 | 4 | 1 | 3 | 10 | 4 |
| 13 or more | 3 | 1 | 0 | - | 3 | 1 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $x^{2}=9.85$ |  | $=12$ |  |  |  | . 63 |

Plans for Completing a Degree (Tables VII and VIII). Table VII presented an interesting finding from the students' responses to the question, "Do you plan to complete a degree at Panhandle State University?" A larger proportion of dropouts than persisters indicated that they did not plan to complete a degree program. However, 16 students who had indicated earlier in September that they planned to obtain a degree at PSU, dropped out at the end of the Fall, 1974 Semester.

TABLE VII
CHI-SQUARE VALUES OF ATTRITION IN RELATION TO PLANS TO COMPLETE

A DEGREE AT PSU

|  | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Degree | No. | \% | No. | \% | No. | \% |
| No Response | 9 | 4 | 1 | 3 | 10 | 3 |
| Yes | 159 | 64 | 16 | 50 | 175 | 63 |
| No | 79 | 32 | 15 | 47 | 94 | 34 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $x^{2}=3.07$ | d | $=3$ |  |  |  | . 38 |

In Table VIII it appeared that most of the dropouts came from the group that made no response to the question of "If yes, check degree planned; Bachelor of Science, Bachelor of Arts, Associate Degree, or Two-Year Certificate." However, almost half of those students who droppoed out indicated a type of degree they were planning to pursue.

Plans for Transferring (Table IX). Table IX disclosed that most of the students did not plan to transfer. Most of the dropouts did not plan to transfer to another college or university. However, of the persisters, 14 actually did transfer from.PSU to another institution. The chi-square value was not significant in this test.

TABLE VIII
CHI-SQUARE VALUES OF ATTRITION IN
RELATION TO TYPE OF
DEGREE PLANNED

|  | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Degree | No. | \% | No. | \% | No. | \% |
| No Response | 103 | 42 | 18 | 56 | 121 | 43 |
| Bachelor of Science | 71 | 29 | 6 | 19 | 77 | 28 |
| Bachelor of Arts | 33 | 13 | 3 | 10 | 36 | 13 |
| Associate Degree | 9 | 4 | 1 | 3 | 10 | 4 |
| Certificate | 31 | 12 | 4 | 12 | 35 | 12 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $\mathrm{x}^{2}=3.20$ | d. | - 5 |  |  |  | . 67 |

TABLE IX

CHI-SQUARE VALUES OF ATTRITION IN RELATION : TO PLANS FOR

TRANSFERRING

|  | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Transfer | No. | \% | No: | \% | No. | \% |
| No Response | 17 | 7 | 2 | 6 | 19 | 7 |
| Yes | 81 | 33 | 8 | 25 | 89 | 32 |
| No | 149 | 60 | 22 | 69 | 171 | 61 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $x^{2}=1.13$ | $\mathrm{d} . \mathrm{f} .=3$ |  |  |  | $\bar{p} x^{2}=.77$ |  |

Language Spoken in the Home (Table X). All the dropouts were from English speaking homes. The persisters included three who were from families speaking a foreign dialect. Three of the students did not respond to "Check the language that is spoken in your home."

TABLE X
CHI-SQUARE VALUES OF ATTRITION IN RELATION TO LANGUAGE SPOKEN IN THE HOME

|  | Persisters | Dropouts | Total |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Language Spoken <br> in the Home | No. | $\%$ | No. | $\%$ | No。 | $\%$ |
| No Response | 3 | 1 | 0 | - | 3 | 1 |
| English |  |  |  |  |  |  |
| Foreign Dialect | 241 | 98 | 32 | 100 | 273 | 98 |
| TOTAL | 3 | 1 | 0 | - | 3 | 1 |
| $x^{2}=.79$ | 247 | 100 | 32 | 100 | 279 | 100 |

Family Income (Table XI). Table XI shows that 38 percent of the dropouts did not know what the family income was. The group having a family income between $\$ 10,000$ and $\$ 14,999$ composed 23 percent of the dropouts and persisters. The chi-square value was not significant in this test.

TABLE XI CHI-SQUARE VALUES OF ATTRITION IN RELATION TO FAMILY INCOME

| Income | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \% | No. | \% | No. | \% |
| No Response | 5 | 2 | 0 | - | 5 | 2 |
| Under \$3,000 | 6 | 3 | 2 | 6 | 8 | 3 |
| \$3,000 to \$4,999 | 10 | 4 | 2 | 6 | 12 | 4 |
| \$5,000 to \$6,999 | 13 | 5 | 2 | 6 | 15 | 5 |
| \$7,000 to \$9,999 | 35 | 14 | 4 | 13 | 39 | 14 |
| \$10,000 to \$14,999 | 55 | 22 | 8 | 25 | 63 | 23 |
| \$15,000 and over | 25 | 10 | 2 | 6 | 27 | 10 |
| Do Not Know | 98 | 40 | 12 | 38 | 110 | 39 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $x^{2}=3.08$ | d. | $=8$ |  |  |  | $=.93$ |

Educational Level of the Father (Table XII). There was a significant difference of observed responses from expected responses for dropouts and persisters. This difference was due to the large disparity between observed and expected responses associated with the educational level of the fathers in the "less than completed high school" category. The chi-square test was significant at the . 02 level.

TABLE XII
CHI-SQUARE VALUES OF ATTRITION IN
RELATION TO THE EDUCATIONAL
LEVEL OF THE FATHER


Educational Leve1 of the Mother (Table XIII). According to Table XIII, 53 percent of the dropouts came from families where the mother had graduated from high school but had not completed college. Sixty-seven percent of the persisters were in the same category. The chi-square value was not significant in this test.

TABLE XIII

CHI-SQUARE VALUES OF ATTRITION IN RELATION TO THE EDUCATIONAL

LEVEL OF THE MOTHER

|  | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Level of Mother | No. | \% | No. | \% | No. | \% |
| Less than Completed High School | 37 | 15 | 8 | 25 | 45 | 16 |
| Graduated from high school but not including college graduates | 165 | 67 | 17 | 53 | 182 | 65 |
| College Graduate and above | 45 | 18 | 7 | 22 | 52 | 19 |
| TOTAL. | 247 | 100 | 32 | 100 | 279 | 100 |
| $\mathrm{x}^{2}=2.78$ | d |  |  |  |  | . 25 |

$\therefore$ Major Field of Study (Table XIV). The total chi-square value for the persisters and dropouts by major field of study in college divisions was 12.69 with a level of significance at the .02 level. According to Table XIV, it appears that most of the significant difference was found in the undeclared dropouts cell where 14 dropouts were recorded.

TABLE XIV

CHI-SQUARE VALUES OF ATTRITION IN RELATION TO THE MAJOR

FIELD OF STUDY

| Division | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \% | No. | \% | No. | \% |
| Agriculture |  |  |  |  |  |  |
| Observed Response | 46.00 | 19 | 5.00 | 16 | 51.00 | 18 |
| Expected Response | 45.25 |  | 5.85 |  | 51.10 |  |
| $\mathrm{x}^{2}$ | . 02 |  | . 12 |  | . 14 |  |
| Science and Mathematics |  |  |  |  |  |  |
| Observed Response | 43.00 | 17 | 3.00 | 9 | 46.00 | 16 |
| Expected Response | 40.72 |  | 5.28 |  | 46.00 |  |
| $x^{2}$ | . 13 |  | . 98 |  | 1.11 |  |
| Business and Applied Arts |  |  |  |  |  |  |
| Observed Response | 55.00 | 22 | 5.00 | 16 | 60.00 | 22 |
| Expected Response | 53.12 |  | 6.88 |  | 60.00 |  |
| $\mathrm{x}^{2}$ | .07 |  | . 51 |  | . 58 |  |
| Education |  |  |  |  |  |  |
| Observed Response | 35.00 | 14 | 1.00 | 3 | 36.00 | 13 |
| Expected Response | 31.87 |  | 4.13 |  | 36.00 |  |
| $\mathrm{x}^{2}$ | . 31 |  | 2.37 |  | 2.68 |  |
| Liberal Arts |  |  |  |  |  |  |
| Observed Response | 20.00 | 8 | 4.00 | 12 | 24.00 | 9 |
| Expected Response | $21.15$ |  | $2.75$ |  | 23.90 |  |
| $x^{2}$ | $.07$ |  | $.57$ |  | . 64 |  |
| Undeclared |  |  |  |  |  |  |
| Observed Response | 48.00 | 20 | 14.00 | 44 | 62.00 | 22 |
| Expected Response | 54.89 |  | 7.11 |  | 62.00 |  |
| $\mathrm{x}^{2}$ | . 86 |  | 6.68 |  | 7.54 |  |
|  | 247.00 | 100 | 32.00 | 100 | 279.00 | 100 |
| $x^{2}$ | 1.46 |  | 11.23 |  | 12.69 |  |
| $\mathrm{x}^{2}=12.69$ | $\mathrm{d} . \mathrm{f}$ 。 $=5$ |  |  |  | p $\mathrm{x}^{2}=.02$ |  |

Religious Preference (Tab1e XV). Tab1e XV indicated the largest number of persisters and dropouts are both in the Baptist and Methodist groups. The dropouts are scattered through almost all the categories. The chi-square value was not significant in this test.

TABLE XV
CHI-SQUARE VALUES OF ATTRITION IN RELATION TO RELIGIOUS PREFERENCE

|  | Persisters | Dropouts | Total |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Religious <br> Preference | No. | $\%$ | No. | $\%$ | No. | $\%$ |
| No Response |  |  |  |  |  |  |
| Catholic | 19 | 8 | 3 | 9 | 23 | 8 |
| Baptist | 76 | 31 | 2 | 6 | 21 | 8 |
| Methodist | 65 | 26 | 9 | 22 | 83 | 30 |
| Church of Christ | 19 | 8 | 3 | 9 | 74 | 27 |
| Apostolic Faith | 5 | 2 | 1 | 3 | 22 | 8 |
| Lutheran | 11 | 5 | 1 | 3 | 12 | 2 |
| Presbyterian | 3 | 1 | 0 | - | 3 | 1 |
| Christian | 16 | 6 | 2 | 6 | 18 | 6 |
| Other Christian | 13 | 5 | 4 | 13 | 17 | 6 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |

ACT Composite Score (Table XVI). The results of the composite ACT scores as presented in Table XVI are questionable because 31 responses were punched incorrectly as a result of confusing coding. The year of

TABLE XVI
CHI-SQUARE VALUES OF ATTRITION IN
RELATION TO THE COMPOSITE
ACT SCORE

| Score | Persisters |  | Dropouts |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \% | No. | \% | No. | \% |
| No Score |  |  |  |  |  |  |
| Available | 31 | 12 | 9 | 29 | 40 | 15 |
| 2 | 1 | 1 | 0 | - | 1 | 0 |
| 6 | 1 | 1 | 0 | - | 1 | 0 |
| 7 | 1 | 1 | 0 | - | 1 | 0 |
| 8 | 1 | 1 | 0 | - | 1 | 0 |
| 9 | 2 | 1 | 0 | - | 2 | 2 |
| 10 | 5 | 2 | 1 | 3 | 6 | 2 |
| 11 | 7 | 3 | 2 | 6 | 9 | 3 |
| 12 | 12 | 4 | 3 | 10 | 15 | 5 |
| 13 | 10 | 4 | 1 | 3 | 11 | 4 |
| 14 | 15 | 6 | 1 | 3 | 16 | 6 |
| 15 | 11 | 4 | 0 | - | 11 | 4 |
| 16 | 11 | 4 | 2 | 6 | 13 | 5 |
| 17. | 12 | 5 | 1 | 3 | 13 | 5 |
| 18 | 9 | 3 | 1 | 3 | 10 | 3 |
| 19 | 26 | 10 | 3 | 10 | 29 | 10 |
| 20 | 10 | 4 | 2 | 6 | 12 | 4 |
| 21 | 9 | 3 | 1 | 3 | 10 | 3 |
| 22 | 7 | 3 | 1 | 3 | 8 | 3 |
| 23 | 5 | 2 | 1 | 3 | 6 | 2 |
| 24 | 10 | 4 | 0 | - | 10 | 3 |
| 25 | 6 | 2 | 0 | - | 6 | 2 |
| 26 | 2 | 1 | 0 | - | 2 | 2 |
| 27 | 5 | 2 | 0 | - | 5 | 2 |
| 28 | 5 | 2 | 0 | - | 5 | 2 |
| 29 | 2 | 1 | 0 | - | 2 | 2 |
| 30 | 1 | 1 | 0 | - | 1 | 0 |
| 31 | 1 | 1 | 1 | 3 | 2 | 2 |
| 91 | 29 | 12 | 2 | 6 | 31 | 11 |
| TOTAL | 247 | 100 | 32 | 100 | 279 | 100 |
| $\mathrm{x}^{2}=18.91$ |  | = 29 |  |  | p | . 92 |

1974-75 was also the first year that students were admitted without having ACT scores. The single category having the largest number of both persisters and dropouts was "no score available." The chi-square value was not significant in this test.

## Summary of Persisters and Dropouts

Through use of the tables compiled for the chi-square tests, significance was found for the students whose fathers had less than a high school education. The fact that dropouts had not declared a major field of study when enrolling in college was also a significant factor.

One might generalize from the chi-square tables of background characteristics that were not significant and describe the students in the study as tending more often to be single, not employed, and reared the greatest number of years in a rural area or town. These dropouts had attended less than three schools, were from English speaking homes, and did not know the amount of the family income. Their religious preference was Baptist or Methodist, and their mothers had graduated from high school but not from college. The students did not plan to transfer to another college or university.

Analysis of Variance Results

## Research Hypothesis One

The first hypothesis stated that there will be no significant difference between persisters, and dropouts as measured by scores on the OPI with respect to each of the 14 background characteristics. The " $F$ " tests obtained for comparisons of the dropouts and persisters were
summarized by OPI scales. Only those scales having significant background characteristics were listed in the following material. The mean values follow for further interpretation of the analysis of variance.

Thinking Introversion (Tab1es XVII, XVIII, and XIX). According to Table XVII, significant differences were found on two of the background characteristics in relation to the TI scale: number of schools attended at the .03 level of significance and the major field of study at the . 02 level of significance.

TABLE XVII
SIGNIFICANT DIFFERENCES OF THINKING INTROVERSION SGALE IN RELATION TO BACKGROUND CHARACTERISTICS

|  |  | Partial Sum <br> Characteristic | DF |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Persist | 1 | 62.56 | 1.18 | .28 |
| Sex | 1 | 41.08 | .78 | .38 |
| Marital Status | 3 | 36.85 | .23 | .87 |
| Hours Employed | 2 | 58.51 | .55 | .58 |
| Community Size | 4 | 252.99 | 1.19 | .31 |
| School Attended | 1 | 240.17 | 4.54 | $.03 *$ |
| Plans for Completing Degree | 2 | 113.65 | 1.07 | .34 |
| Type of Degree | 4 | 467.19 | 2.21 | .07 |
| Plans for Transferring | 2 | 120.15 | 1.13 | .32 |
| Language Spoken in the Home | 2 | 57.60 | .54 | .59 |
| Family Income | 7 | 181.21 | .49 | .84 |
| Educational Level of Father | 2 | 101.64 | .96 | .61 |
| Educational Level of Mother | 2 | 262.96 | 2.48 | .08 |
| Major Field of Study | 1 | 296.67 | 5.60 | $.02 *$ |
| Religious Preference | 9 | 633.96 | 1.33 | .22 |
| ACT Score | 26 | 1268.26 | .92 | .58 |

*Significant at the . 05 leve1

Students from the groups that had attended fewer schools (Table XVIII) usually scored lower on the TI scale than did those who had attended a greater number of schools. These students with high scores expressed interests in a broad range of ideas in several areas. The low scoring students were more dominated by immediate conditions and situations.

TABLE XVIII

MEAN OF TI SCALE IN RELATION TO NUMBER OF SCHOOLS ATTENDED

| Number of <br> Schools Attended | N | Mean | SD |
| :---: | ---: | ---: | ---: |
|  |  |  |  |
| 1 | 90 | 39.04 | 7.20 |
| 2 | 56 | 38.48 | 7.65 |
| 3 | 50 | 41.48 | 7.11 |
| 4 | 18 | 42.61 | 7.92 |
| 5 | 17 | 40.47 | 8.80 |
| 6 | 11 | 45.73 | 8.71 |
| 7 | 6 | 38.50 | 8.48 |
| 8 | 1 | 46.00 | - |
| 9 | 10 | 42.67 | 10.37 |
| 10 | 3 | 47.50 | .58 |
| 11 | 2 | 42.50 | .71 |
| 12 | 3 |  | 7.00 |
| 13 |  |  | 5.00 |

The students who had indicated a major other than home economics scored higher on the TI scale than did those indicating a major in home economics (Table XIX). Usually the non-home economics majors had a desire to learn, were academically inclined, and enjoyed a varied
learning structure. The home economics majors tended to have lower standards for course work and to spend their leisure time outside the academic environment.

## TABLE XIX

MEAN OF TI SCALE IN RELATION TO MAJOR FIELD OF STUDY

| Major | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| Non-Home <br> Economics <br> Home <br> Economics | 268 | 40.81 | 7.76 |

Theoretical Observation (Tables XX, XXI, XXII, and XXIII). On the TO scale, significant differences were found on three of the background charactersitics, namely, number of schools attended at the . 02 level of significance, plans for transferring at the . 02 level of significance, and the educational level of the mother at the .05 level of significance (Table XX).

TABLE XX

## SIGNIFICANT DIFFERENCES OF THEORETICAL OBSERVATION IN RELATION TO BACKGROUND CHARACTERISTICS

|  |  | Partial Sum <br> of Squares | F Value | Prob. |
| :--- | ---: | ---: | ---: | ---: |
| Characteristic |  |  |  |  |
| Persist | 1 | 42.06 | .68 | .41 |
| Sex | 1 | 113.56 | 1.85 | .18 |
| Marital Status | 3 | 110.00 | .60 | .62 |
| Hours Employed | 2 | 14.79 | .12 | .89 |
| Community Size | 4 | 181.89 | .74 | .57 |
| Schools Attended | 1 | 320.86 | 5.22 | $.02 *$ |
| Plans for Completing Degree | 2 | 13.78 | .11 | .89 |
| Type of Degree | 4 | 318.14 | 1.29 | .27 |
| Plans for Transferring | 2 | 478.58 | 3.89 | $.02 *$ |
| Language Spoken in the Home | 2 | 87.96 | .72 | .51 |
| Family Income | 7 | 374.95 | .87 | .53 |
| Educational Level of Father | 2 | 57.87 | .47 | .63 |
| Educational Level of Mother | 2 | 413.34 | 3.36 | $.04 *$ |
| Major Field of Study | 1 | 226.74 | 3.69 | .06 |
| Religious Preference | 9 | 458.64 | .83 | .59 |
| ACT Score | 26 | 1938.20 | 1.21 | .23 |

*Significant at the . 05 level

The students indicating they had attended fewer schools (Table XXI) scored significantly lower on the T0 scale than did those who had attended a greater number of schools. Those high scoring students were inclined to prefer thought provoking ideas about scientific or mathematical items. They also tended to enjoy research, while those scoring lower preferred to have everything explained to them. Generally they did not like science, mathematics or research.

TABLE XXI

MEAN OF TO SCALE IN RELATION TO NUMBER OF SCHOOLS ATTENDED

| Number of <br> Schools Attended | N | Mean | SD |
| :---: | ---: | ---: | ---: |
|  |  |  |  |
| 1 | 90 | 40.81 | 8.52 |
| 2 | 56 | 40.36 | 7.68 |
| 4 | 50 | 41.72 | 7.54 |
| 5 | 18 | 43.22 | 8.40 |
| 6 | 17 | 43.35 | 8.39 |
| 7 | 11 | 43.73 | 10.20 |
| 8 | 6 | 44.50 | 7.34 |
| 9 | 1 | 37.00 | - |
| 10 | 3 | 38.60 | 8.72 |
| 11 | 2 | 51.00 | - |
| 12 | 3 | 45.70 | 9.19 |
| 13 or more |  | 52.00 | 5.66 |

Those students planning to transfer (Table XXII) scored significantly higher on the $T O$ scale than those not planning to transfer. Those transfer students were usually logical, analytical, and critical in the way they approached problems. Those students not transferring usually preferred to have theory explained to them rather than trying to understand the problem on their own.

TABLE XXII
MEAN OF TO SCALE IN RELATION TO PLANS FOR TRANSFERRING

| Plans for <br> Transferring | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| No Response | 17 | 44.35 | 6.78 |
| Yes | 88 | 43.58 | 8.60 |
| No | 170 | 40.98 | 8.10 |
| TOTAL | 247 |  |  |

The mean scores on the $T 0$ scale were significantly higher for the students whose mothers had less than a high school education (Table XXIII). These students with high scores usually preferred thought provoking ideas about scientific or mathematical items. They also enjoyed research while the low scorers are inclined not to like science, mathematics, or research and prefer to have theory explained to them.

Estheticism (Tables XXIV, XXV, XXVI, XXVII, XXVIII, and XXIX). Five of the background characteristics were found to have significant differences in relation to the Estheticism Scale scores. There were differences of scores for men and women at the . 0001 leve1, sizes of communities where reared the greatest number of years at the .03 level, major field of study chosen at the .02 leve1, and the religious preference at the . 01 level.

TABLE XXIII
MEAN OF TO SCALE IN RELATION TO EDUCATIONAL LEVEL OF THE MOTHER

| Educational Leve1 | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| Less Than Completed <br> High School | 45 | 43.82 | 8.46 |
| Less Than College Graduate <br> But Completed High School | 180 | 41.69 | 8.32 |
| College Graduate <br> and Above | 52 | 41.44 | 7.79 |
| TOTAL | 277 |  |  |

TABLE XXIV
SIGNIFICANT DIFFERENCES IN ESTHETICISM SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DF | Partial Sum <br> of Squares | F Value | Prob。 <br> S |
| :--- | ---: | :---: | :---: | :---: |
| Persist | 1 | 2.17 | .04 | .84 |
| Sex | 1 | 1206.34 | 22.78 | $.0001 *$ |
| Marital Status | 3 | 102.68 | .65 | .59 |
| Hours Employed | 2 | 109.93 | 1.04 | .36 |
| Community Size | 4 | 600.38 | 2.83 | $.03^{*}$ |
| Schools Attended | 1 | 330.84 | 6.25 | $.01 *$ |
| Plans for Completing Degree | 2 | 66.83 | .63 | .54 |
| Type of Degree | 4 | 406.09 | 1.92 | .11 |
| Plans for Transferring | 2 | 150.39 | 1.42 | .24 |
| Language Spoken in the Home | 2 | 68.39 | .65 | .53 |
| Family Income | 7 | 525.06 | 1.42 | .20 |
| Educational Level of Father | 2 | 102.15 | .96 | .62 |
| Educational Level of Mother | 2 | 56.21 | .53 | .59 |
| Major Field of Study | 1 | 273.75 | 5.17 | $.02 *$ |
| Religious Preference | 9 | 1156.66 | 2.43 | $.01 *$ |
| ACT Score | 26 | 1480.41 | 1.08 | .37 |

[^0]The female students (Table XXV) scored higher on the ES scale than did the male students. The female students were inclined toward interest in the humanities. They responded to aesthetic stimulation while the male students were usually not as interested in artistic or literary achievement.

TABLE XXV
MEAN OF ES SCALE IN RELATION TO SEX

| Sex | $N$ | Mean | SD |
| :--- | :--- | :--- | :--- |
| Male | 169 | 42.47 | 7.50 |
| Female | 108 | 45.31 | 8.25 |
| TOTAL | 277 |  |  |

The students from larger cities (Table XXVI) scored higher than those from the rural areas. These students from large cities tended to have diverse interests in artistic matters as well as interests in literature and dramatics.

TABLE XXVI

## MEAN OF ES SCALE IN RELATION <br> TO SIZE OF COMMUNITY

| Size of <br> Community | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| No Response | 29.00 | 1.41 |  |
| Rural Area (Open <br> Country, Farm) | 112 | 42.07 | 7.83 |
| Town (Under 20,000 <br> Population) | 127 | 44.50 | 7.57 |
| City (20,000 to <br> 100,000) | 25 | 53.52 | 8.59 |
| Large City (More <br> Than 100,000) | 9 | 5.97 |  |
| TOTAL | 275 |  |  |

The students scoring high on the Es scale, when the number of schools attended was considered, were those who had attended 4, 5, 6, 7, 9, and 13 or more (Table XXVII). These students are inclined toward interest in the humanities. They customarily responded to esthetic stimulation. The students attending 1, 2, 3, 8, 10, 11, or 12 schools were generally not as interested in artistic or literary achievements.

TABLE XXVII
MEAN OF ES SCALE IN RELATION TO NUMBER OF SCHOOLS ATTENDED

| Number of <br> Schools Attended | N | Mean | SD |
| :---: | ---: | :---: | :---: |
|  |  |  |  |
| 1 | 90 | 41.42 | 8.52 |
| 2 | 56 | 42.84 | 8.63 |
| 3 | 50 | 43.90 | 8.07 |
| 4 | 18 | 46.50 | 9.50 |
| 5 | 17 | 46.71 | 6.83 |
| 6 | 11 | 49.64 | 9.22 |
| 7 | 6 | 46.17 | 4.92 |
| 8 | 1 | 45.00 | -90 |
| 9 | 3 | 44.67 | 9.26 |
| 10 | 2 | 41.00 | 4.62 |
| 11 | 3 | 46.70 | 7.75 |
| 12 |  |  | 7.77 |
| 13 or more |  |  |  |

The non-home economics majors (Table XXVIII) scored higher than the home economics majors on the Es scale. The non-home economics students indicated that they usually enjoyed listening to poetry, looking at paintings; and reading about artistic and literary achievements. The home economics students tended not to be as interested in artistic and literary achievements.

Students indicating a religious preference (Table XXIX) for Presbyterian, Lutheran, or Catholic scored higher than those with other religious preferences or no responses. The Presbyterian, Lutheran, and Catholic students tended to indicate an interest toward artistic matters as well as in literature and dramatics.

TABLE XXVIII

MEAN OF ES SCALE IN RELATION TO
MAJOR FIELD OF STUDY

| Major | N | Mean | SD |
| :--- | ---: | ---: | ---: |
| Non-Home Economics | 268 | 43.65 | 7.91 |
| Home Economics | 9 | 41.56 | 8.06 |
| TOTAL | 277 |  |  |

TABLE XXIX
MEAN OF ES SCALE IN RELATION TO RELIGIOUS PREFERENCE

|  |  |  |  |
| :--- | ---: | :--- | ---: |
| Religious | N | Mean |  |
| Preference |  |  |  |
|  |  |  |  |
| No Response | 21 | 46.24 | 11.07 |
| Catholic | 21 | 47.81 | 7.10 |
| Baptist | 83 | 42.30 | 7.45 |
| Methodist | 73 | 42.38 | 7.58 |
| Church of Christ | 21 | 45.62 | 6.55 |
| Apostolic Faith | 6 | 44.67 | 4.50 |
| Lutheran | 12 | 47.17 | 8.00 |
| Presbyterian | 3 | 49.33 | 2.31 |
| Christian | 18 | 39.94 | 6.22 |
| Other Christian | 17 | 44.47 | 8.75 |
|  |  |  |  |

Complexity (Tables XXX and XXXI). The male and female students scored significantly different on the Complexity scale. The level of significance was . 04 .

TABEL XXX
SIGNIFICANT DIFFERENCES IN COMPLEXITY SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DF | Partial Sum of Squares | F Value | ${\underset{F}{\text { Prob }}}^{\text {F }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Persist | 1 | 60.17 | 1.17 | . 28 |
| Sex | 1 | 210.44 | 4.10 | .04* |
| Marital Status | 3 | 166.60 | 1.08 | . 36 |
| Hours Employed | 2 | 239.22 | 2.33 | . 10 |
| Community Size | 4 | 142.65 | . 69 | . 60 |
| Schools Attended | 1 | 59.83 | 1.17 | . 28 |
| Plans for Completing Degree | 2 | 29.53 | . 29 | . 75 |
| Type of Degree | 4 | 365.73 | 1.78 | . 13 |
| Plans for Transferring | 2 | 79.50 | . 77 | . 53 |
| Language Spoken in the Home | 2 | 229.11 | 2.23 | . 11 |
| Family Income | 7 | 150.94 | . 42 | . 89 |
| Educational Level of Father | 2 | 9.27 | . 09 | . 91 |
| Educational Level of Mother | 2 | 23.84 | . 23 | . 80 |
| Major Field of Study | 1 | 7.33 | . 14 | . 71 |
| Religious Preference | 9 | 545.58 | 1.18 | . 31 |
| ACT Score | 26 | 1007.87 | . 76 | . 80 |

*Significant at the . 05 leve1

The mean score for the male students (Table XXXI) was higher, a fact indicating that they liked to take chances without being sure of the outcome. They believed that most questions had more than one correct answer. The women in this study tended not to like to be uncertain and
unpredictable. Generally, the women students found straight forward reasoning more appealing than searching for analogies and metaphors.

TABLE XXXI
MEAN OF CO SCALE IN RELATION TO SEX

| Sex | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| Male | 169 | 48.00 | 6.99 |
| Female | 108 | 46.32 | 7.59 |
| TOTAL | 277 |  |  |

Religious Orientation (Tables XXXII, XXXIII, and XXIV). The male and female students scored significantly different on the RO Scale (Table XXXII). The leve1 of significance was .005. The religious preference was also significantly different at the . 0001 level.

The male students (Table XXXIII) scored higher than the female students. The male students were inclined to deny that one must not associate with those who do not claim to believe in God. These students did not usually question a person who lacks religious feelings. The female students tended to prefer being with people who were religious.

TABLE XXXII

SIGNIFICANT DIFFERENCES IN RELIGIOUS ORIENTATION SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DF | Partial Sum of Squares | F Value | ${\underset{\sim}{\text { Prob }}}$ |
| :---: | :---: | :---: | :---: | :---: |
| Persist | 1 | 24.68 | . 60 | . 44 |
| Sex | 1 | 328.33 | 7.98 | .005* |
| Marital Status | 3 | 131.99 | 1.07 | . 36 |
| Hours Employed | 2 | 114.39 | 1.39 | . 25 |
| Community Size | 4 | 79.26 | . 48 | . 75 |
| Schools Attended | 1 | 21.43 | . 52 | . 47 |
| Plans for Completing Degree | 2 | 5.46 | . 07 | . 94 |
| Type of Degree | 4 | 47.31 | . 29 | . 89 |
| Plans for Transferring | 2 | 5.42 | . 07 | . 94 |
| Language Spoken in the Home | 2 | 23.56 | . 29 | . 76 |
| Family Income | 7 | 558.72 | 1.94 | . 06 |
| Educational Level of Father | 2 | 52.17 | . 63 | . 54 |
| Educational Level of Mother | 2 | 148.44 | 1.80 | . 17 |
| Major Field of Study | 1 | 60.46 | 1.47 | . 23 |
| Religious Preference | 9 | 1619.40 | 4.37 | .0001* |
| ACT Score | 26 | 994.04 | . 93 | . 57 |

*Significant at the . 05 leve 1

TABLE XXXIII
MEAN OF RO SCALE IN
RELATION TO SEX

| Sex | N | Mean | SD |
| :--- | :--- | :--- | :--- |
| Male | 169 | 47.11 | 7.22 |
| Female | 108 | 45.31 | 6.19 |
| TOTAL | 277 |  |  |

Those students who listed no religious preference and those who listed Presbyterian scored significantly higher on the RO scale than did the other students (Table XXXIV). These students tended not to believe that everyone should have complete faith in a supernatural power whose decisions they should obey without question. Church of Christ, Lutheran, and Baptist tended to believe their church or denomination has the only true approach to God. Usually they believed there was something wrong with a person who lacked religious feeling.

TABLE XXXIV
MEAN OF RO SCALE IN RELATION
TO RELIGIOUS PREFERENCE

| Religious <br> Preference | N | Mean | SD |
| :--- | ---: | ---: | ---: |
|  |  |  |  |
| No Response | 21 | 51.43 | 5.02 |
| Catholic | 21 | 47.19 | 6.38 |
| Baptist | 83 | 43.75 | 6.32 |
| Methodist | 73 | 48.78 | 7.05 |
| Church of Christ | 21 | 43.71 | 5.06 |
| Apostolic Faith | 6 | 45.83 | 10.83 |
| Lutheran | 12 | 43.08 | 5.79 |
| Presbyterian | 3 | 50.33 | 5.69 |
| Christian | 18 | 47.67 | 6.46 |
| Other Christian | 17 |  |  |

Social Extroversion (Tables XXXV, XXXVI, XXXVII, and XXXVIII). Three of the background characteristics were found to have significant differences in relation to the SE Scale scores. These included the differences of scores for men and women at the . 001 level of significance,
the size of community where reared the greatest number of years at the .008 leve1 of significance, and the type of degree at the .04 level of significance.

TABLE XXXV
SIGNIFICANT DIFFERENCES OF SOCIAL EXTROVERSION SCALE IN RELATION TO BACKGROUND

CHARACTERISTICS

| Characteristic | DF | Partial Sum of Squares | F Value | $\underset{\mathrm{F}}{\mathrm{Prob}}$ |
| :---: | :---: | :---: | :---: | :---: |
| Persist | 1 | 7.00 | . 10 | . 76 |
| Sex | 1 | 770.39 | 10.65 | .001* |
| Marital Status | 3 | 138.06 | . 64 | . 60 |
| Hours Employed | 2 | 63.02 | . 44 | . 65 |
| Community Size | 4 | 1512.00 | 5.23 | .0008* |
| Schools Attended | 1 | 25.73 | . 36 | . 55 |
| Plans for Completing Degree | 2 | 4.77 | . 03 | . 97 |
| Type of Degree | 4 | 757.20 | 2.62 | .04* |
| Plans for Transferring | 2 | 137.00 | . 95 | . 61 |
| Language Spoken in the Home | 2 | 211.19 | 1.46 | . 23 |
| Family Income | 7 | 689.31 | 1.36 | . 22 |
| Educational Level of Father | 2 | 255.65 | 1.77 | . 17 |
| Educational Level of Mother | 2 | 88.10 | . 61 | . 55 |
| Major Field of Study | 1 | 71.17 | . 98 | . 32 |
| Religious Preference | 9 | 782.86 | 1.20 | . 29 |
| ACT Score | 26 | 2178.84 | 1.16 | . 28 |

*Significant at the .05 level

The female students (Table XXXVI) scored higher than did the male students on the SE scale, The female students preferred being with people while the male students tended to withdraw from social contacts and responsibilities.

TABLE XXXVI
MEAN OF SE SCALE IN RELATION TO SEX

| Sex | N | Mean | SD |
| :--- | :--- | :--- | :--- |
| Male | 169 | 46.95 | 8.73 |
| Female | 108 | 50.69 | 9.61 |
| TOTAL | 277 |  |  |

Those students who were reared the greatest number of years in either a town or city (Table XXXVII) scored higher than the students who lived in rural areas or large cities. Those students reared in a town or city customarily liked to be with people and enjoyed relating to people in a social context.

The scores were higher for degree plans (Tab1e XXXVIII) chosen by students as Bachelor of Arts and Associate Degrees. The Bachelor of Arts degree is granted in English, History, Social Studies, and Speech. The Associate Degree is awarded in Auto Mechanics and Technology, Business Clerical Programs, Farm and Ranch Management, and Fashion Merchandising. Those people choosing the Bachelor of Arts and Associate Degrees preferred to attend social functions and enjoyed being with people. Those students who indicated the Bachelor of Science, Certificate, or who did not respond tended to be more socially introverted.

TABLE XXXVII

MEAN OF SE SCALE IN RELATION TO COMMUNITY SIZE

| Size of <br> Community | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| No Response <br> Rural Area (Open <br> Country, Farm) | 2 | 46.00 | 1.41 |
| Town (Under 20,000 <br> Population) | 112 | 46.15 | 8.36 |
| City (20,000 to <br> 100,000) | 127 | 50.59 | 9.16 |
| Large City (More <br> Than 100,000 <br> TOTAL | 25 | 40.00 | 8.58 |

TABLE XXXVIII

MEAN OF SE SCALE IN RELATION TO TYPE OF DEGREE PLANNED

| Type of Degree | N | Mean | SD |
| :--- | ---: | ---: | ---: |
|  |  |  |  |
| No Response | 117 | 47.56 | 9.71 |
| Bachelor of Science | 76 | 48.04 | 9.43 |
| Bachelor of Arts | 36 | 51.78 | 8.05 |
| Ascociate Degree | 10 | 48.10 | 9.617 |
| Certificate | 35 | 8.00 |  |
|  |  |  |  |
| TOTAL | 274 |  |  |

Impulse Expression (Tables XXXIX, XL, and XLI). Two of the background characteristics were found to have significant differences in relation to the Impulse Expression Scale. The dropouts had significantly higher, . 002 level, scores than did the persisters. The males had significantly higher scores than did the females, . 0001 level, for the IE Scale.

TABLE XXXIX
SIGNIFICANT DIFFERENCES OF IMPULSE EXPRESSION SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristics | DF | Partial Sum of Squares | F Value | $\underset{P}{\text { Prob. }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Persist | 1 | 503.00 | 5.64 | .02* |
| Sex | 1 | 2151.14 | 24.12 | .0001* |
| Marital Status | 3 | 681.53 | 2.55 | . 06 |
| Hours Employed | 2 | 130.14 | . 73 | . 51 |
| Community Size | 4 | 388.66 | 1.09 | . 36 |
| Schools Attended | 1 | 12.33 | . 14 | . 71 |
| Plans for Completing Degree | 2 | 75.40 | . 42 | . 66 |
| Type of Degree | 4 | 567.39 | 1.59 | . 18 |
| Plans for Transferring | 2 | 500.16 | 2.80 | . 06 |
| Language Spoken in the Home | 2 | 78.79 | . 44 | . 65 |
| Family Income | 7 | 428.37 | . 69 | . 69 |
| Educational Level of Father | 2 | . 68 | . 01 | . 99 |
| Educational Level of Mother | 2 | 136.49 | . 76 | . 53 |
| Major Field of Study | 1 | 6.20 | . 07 | . 79 |
| Religious Preference | 9 | 598.04 | . 75 | . 67 |
| ACT Score | 26 | 2756.53 | 1.19 | . 25 |

*Significant at the . 05 leve1

The scores of the dropout students (Table XL) were higher than those of the persisters, The dropouts usually expressed impulses readily and may have feelings of rebellion and aggression. The persisters tended to get along well with teachers, without misbehaving or disobeying regulations.

TABLE XL
mean of ie scale in relation
TO PERSISTING

| Students | N | Mean | SD |
| :--- | ---: | ---: | ---: |
| Persisters | 245 | 52.33 | 10.21 |
| Dropouts | 32 | 56.47 | 11.22 |
| TOTAL | 277 |  |  |

The male students scored higher on the IE Scale than did the female students (Table XLI). The male students often may act on the spur of the moment without stopping to think. Their friends may think that some of the ideas they have are impractical and a bit wild. The women students tended not to express impulses as readily as did the male students.

TABLE XLI

MEAN OF IE SCALE IN RELATION TO SEX

| Sex | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| Male | 169 | 55.67 | 9.73 |
| Female | 108 | 48.34 | 9.86 |
| TOTAL | 277 |  |  |

Altruism (Tables XLII, XLIII, XLIV, and XLV). Three of the background characteristics were found to have significant differences in relation to the AM Scale (Table XLII). There were the differences of scores for men and women at the . 0001 level, marital status at the .04 level, and ACT scores at the . 006 level.

The female students scored higher (Table XLIII) on the AM Scale than did the male students. The female students were usually trusting and ethical in their relations with others. The male students tended not to consider the feelings of others and often viewed people from an impersonal perspective.

TABLE XLII
SIGNIFICANT DIFFERENCE OF ALTRUISM SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

|  |  | Partial Sum <br> of Squares | F Value | Prob。 |
| :--- | ---: | ---: | ---: | ---: |
| Characteristic |  |  |  |  |
| Persist | 1 | .03 | .01 | .98 |
| Sex | 1 | 2072.23 | 29.07 | $.0001^{*}$ |
| Marital Status | 3 | 619.18 | 2.89 | $.04 *$ |
| Hours Employed | 2 | 115.55 | .81 | .55 |
| Community Size | 4 | 250.80 | .88 | .52 |
| Schools Attended | 1 | 38.32 | .54 | .46 |
| Plans for Completing Degree | 2 | 39.81 | .28 | .76 |
| Type of Degree | 4 | 316.85 | 1.11 | .35 |
| Plans for Transferring | 2 | 145.92 | 1.02 | .36 |
| Language Spoken in the Home | 2 | 199.97 | 1.40 | .25 |
| Family Income | 7 | 679.47 | 1.36 | .22 |
| Educational Level of Father | 2 | 100.00 | .70 | .50 |
| Educational Level of Mother | 2 | 255.47 | 1.79 | .17 |
| Major Field of Study | 1 | 2.14 | .03 | .86 |
| Rligious Preference | 9 | 109.80 | 1.70 | .09 |
| ACT Score | 26 | 3587.76 | 1.94 | $.006 *$ |

*Significant at the . 05 leve1

TABLE XLIII
MEAN OF AM SGALE IN RELATION TO SEX

| Sex | N | Mean | SD |
| :--- | :--- | :--- | :--- |
| Male | 169 | 43.14 | 8.68 |
| Female | 108 | 50.70 | 9.62 |
| TOTAL | 277 |  |  |

The married students and the single scored significantly higher than the engaged and divorced students. The single and married students were more concerned for the welfare of other people while the engaged and divorced students tended to be aloof or reserved.

TABLE XLIV
MEAN - OF AM SCALE IN RELATION
TO MARITAL STATUS

| Marital <br> Status | N | Mean | SD |
| :--- | ---: | ---: | ---: |
| Single | 249 | 46.10 | 9.85 |
| Engaged | 5 | 40.20 | 6.22 |
| Married and <br> Living With <br> Spouse | 20 | 48.45 | 9.49 |
| Divorced | 2 | 39.00 | 1.41 |
| TOTAL | 276 |  |  |

Generally the students with high scores on the ACT (Table XLV) had higher scores on the AM scale. These high scorers had strong feelings for the welfare of other people and also take people seriously. The low scorers usually preferred to use leisure time to develop a favorite skill rather than for working with people.

TABLE XLV

MEAN OF AM SCALE IN RELATION
TO ACT SCORE

|  |  |  |  |
| :---: | ---: | ---: | ---: |
| ACT |  |  |  |
| Score |  | Mean | SD |
|  |  |  |  |
| No Score | 39 | 45.08 | 9.46 |
| 2 | 1 | 41.00 | - |
| 6 | 1 | 40.00 | - |
| 7 | 1 | 40.00 | - |
| 8 | 1 | 54.00 | .71 |
| 9 | 2 | 42.50 | 8.06 |
| 10 | 6 | 41.83 | 11.27 |
| 11 | 9 | 47.89 | 6.62 |
| 12 | 15 | 38.40 | 5.02 |
| 13 | 11 | 42.82 | 5.62 |
| 14 | 16 | 44.50 | 7.98 |
| 15 | 11 | 45.73 | 10.09 |
| 16 | 13 | 45.69 | 9.30 |
| 17 | 13 | 47.00 | 11.82 |
| 18 | 10 | 44.80 | 8.56 |
| 19 | 29 | 48.24 | 11.59 |
| 20 | 12 | 50.33 | 10.00 |
| 21 | 10 | 46.70 | 11.61 |
| 22 | 8 | 52.38 | 12.44 |
| 23 | 6 | 49.67 | 12.54 |
| 24 | 5 | 51.50 | 8.59 |
| 25 | 1 | 53.60 | - |
| 26 | 5 | 61.00 | 19.27 |
| 27 | 5 | 43.80 | 6.80 |
| 28 | 2 | 55.60 | 2.83 |
| 29 | 1 | 52.00 | - |
| 30 | 277 | 50.00 | 9.19 |
| 31 |  | 58.50 | 8.29 |
| 91 (punching error) | 31 | 42.94 |  |
|  |  |  |  |
|  |  |  |  |

Practical Outlook (Tables XLVI and XLVII). A significant difference was found for the number of schools attended in relation to the PO Scale score at the . 04 level of significance.

TABLE XLVI
SIGNIFICANT DIFFERENCE OF PRACTICAL OUTLOOK SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DF | Partial Sum of Squares | F Value | $\mathrm{Sr}_{\mathrm{Pr}} \mathrm{~F}$ |
| :---: | :---: | :---: | :---: | :---: |
| Persist | 1 | 2.13 | . 04 | . 83 |
| Sex | 1 | 124.93 | 2.64 | . 11 |
| Marital Status | 3 | 81.94 | . 58 | . 63 |
| Hours Employed | 2 | 74.92 | . 79 | . 54 |
| Community Size | 4 | 196.09 | 1.04 | . 39 |
| Schools Attended | 1 | 193.66 | 4.09 | .04* |
| Plans for Completing Degree | 2 | 111.85 | 1.18 | . 31 |
| Type of Degree | 4 | 398.17 | 2.10 | . 08 |
| Plans for Transferring | 2 | 64.50 | . 68 | . 51 |
| Language Spoken in the Home | 2 | 184.42 | 1.95 | . 14 |
| Family Income | 7 | 186.17 | . 56 | . 79 |
| Educational Level of Father | 2 | 4.71 | . 05 | . 95 |
| Educational Level of Mother | 2 | 112.81 | 1.19 | . 31 |
| Major Field of Study | 1 | 20.52 | . 43 | . 51 |
| Religious Preference | 9 | 236. 82 | . 56 | . 83 |
| ACT Score | 26 | 1319.93 | 1.07 | . 38 |

*Significant at the . 05 level

The scores on the PO Scale (Table XLVI) were high when one considered those who had attended $1,2,4,5,6,8$, or 11 schools. These students preferred practical application on tests, certainty, and being able to predict the outcome. They believe in established order. The students who had attended $3,9,10,12$, or 13 or more schools
usually found a greater appeal in ideas rather than in facts. These students tended not to believe that one should be a booster for one's home town or that most questions have only one correct answer.

TABLE XLVII
MEAN OF PO SCALE IN RELATION TO NUMBER OF SCHOOLS ATTENDED

| Number of <br> Schools <br> Attended |  |  |  |
| :---: | :---: | :---: | :---: |
|  | N | Mean | SD |
| 1 | 90 | 57.78 |  |
| 2 | 56 | 57.54 | 6.53 |
| 3 | 50 | 54.76 | 7.32 |
| 4 | 18 | 57.28 | 7.73 |
| 5 | 17 | 57.41 | 6.52 |
| 6 | 11 | 57.36 | 6.43 |
| 7 | 6 | 51.83 | 7.45 |
| 8 | 1 | 61.00 | 8.23 |
| 9 | 3 | 54.80 | - |
| 10 | 2 | 57.00 | 8.08 |
| 11 | 3 | 54.80 | 3.46 |
| 12 | 277 | 54.33 | 5.66 |
| 13 or more |  |  | 5.16 |

[^1]TABLE XLVIII

SIGNIFICANT DIFFERENCE OF MASCULINITY-FEMININITY SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic |  | Partial Sum <br> of Squares | F Value | Prob |
| :--- | ---: | ---: | ---: | ---: |
| Persist | 1 | 1.11 | .03 | .87 |
| Sex | 1 | 3808.60 | 89.43 | $.0001 *$ |
| Marital Status | 3 | 22.25 | .17 | .91 |
| Hours Employed | 2 | 5.86 | .07 | .93 |
| Community Size | 4 | 292.22 | 1.72 | .15 |
| Schools Attended | 1 | 13.04 | .31 | .58 |
| Plans for Completing Degree | 2 | 2.21 | .03 | .98 |
| Type of Degree | 4 | 28.69 | .17 | .95 |
| Plans for Transferring | 2 | 10.43 | .12 | .88 |
| Language Spoken in the Home | 2 | 78.24 | .92 | .60 |
| Family Income | 7 | 343.24 | 1.15 | .33 |
| Educational Level of Father | 2 | 19.90 | .23 | .79 |
| Educational Level of Mother | 2 | 37.67 | .44 | .65 |
| Major Field of Study | 1 | .16 | .01 | .95 |
| Religious Preference | 9 | 687.70 | 1.79 | .07 |
| ACT Score | 26 | 1536.39 | 1.39 | .11 |
|  |  |  |  |  |

*Significant at the . 05 level

The males (Table XLIX) had mean scores that were higher than the females on the MF Scale. The data indicated that the males were more masculine and enjoyed the subjects of chemistry, physics, and mathematics. The females tended to be more feminine and liked dramatics, literature, and poetry.

Response Bias (Tables L, LI, and LII). Significant differences were found for the dissimilarities of the males and females associated with plans for completing a degree at PSU, in relation to the RB Scale. The males versus females were significant at the . 04 level and plans for completing a degree was significant at the .04 level.

TABLE XLIX

MEAN OF MF SCALE IN RELATION TO SEX

| Sex | N | Mean | SD |
| :--- | :--- | :--- | :--- |
| Male | 169 | 55.28 | 6.63 |
| Female | 108 | 45.97 | 6.74 |
| TOTAL | 277 |  |  |

TABLE L
SIGNIFICANT DIFFERENCE OF RESPONSE BIAS SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DF | Partial Sum of Squares | F Value | $\sum_{\mathrm{F}}^{\text {Prob }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Persist | 1 | 269.42 | 3.01 | . 08 |
| Sex | 1 | 398.47 | 4.45 | . $04 *$ |
| Marital Status | 3 | 486.54 | 1.81 | . 14 |
| Hours Employed | 2 | 22.26 | . 12 | . 88 |
| Community Size | 4 | 275.43 | . 77 | . 55 |
| Schools Attended | 1 | 17.45 | . 20 | . 66 |
| Plans for Completing Degree | 2 | 596.49 | 3.33 | .04* |
| Type of Degree | 4 | 577.51 | 1.61 | . 17 |
| Plans for Transferring | 2 | 349.07 | 1.95 | . 14 |
| Language Spoken in the Home | 2 | 316.93 | 1.77 | . 17 |
| Family Income | 7 | 618.84 | . 99 | . 56 |
| Educational Level of Father | 2 | 71.20 | . 40 | . 68 |
| Educational Level of Mother | 2 | 287.61 | 1.61 | . 20 |
| Major Field of Study | 1 | 14.17 | . 16 | . 69 |
| Religious Preference | 9 | 634.13 | . 79 | . 63 |
| ACT Score | 26 | 3146.91 | 1.35 | . 13 |

*Significant at the . 05 level

The females scored higher on the RB Scale than did the males. The females tended to enjoy thinking about problems which challenged the experts and to find the idea of doing research appealing. The males often found themselves listening without hearing. The males sometimes felt that difficulties were so large they could not overcome them.

TABLE LI
MEAN OF RB SCALE IN RELATION TO SEX

| Sex | N | Mean | SD |
| :--- | :--- | :--- | ---: |
| Male | 169 | 45.46 | 10.09 |
| Female | 108 | 46.68 | 9.64 |
| TOTAL | 277 |  |  |

The students who did not plan to obtain a degree at PSU (Table LII) scored higher than those who planned to obtain a degree at PSU. However, the highest scores were from those students that did not respond to this question. Those with higher scores usually enjoyed finding problems to stump the experts. Those who planned to obtain a degree may feel that civil disobedience is sometimes justified. They sometimes found it hard to concentrate on a problem for more than an hour or two at one time。

TABLE LII
MEAN OF RB SCALE IN RELATION TO PLANS FOR COMPLETING A DEGREE

| Plans for <br> Completing <br> a Degree | N | Mean | SD |
| :--- | ---: | ---: | ---: |
| No Response | 8 | 50.50 | 14.61 |
| Yes | 174 | 45.14 | 8.91 |
| No | 93 | 46.96 | 11.20 |
| TOTAL | 275 |  |  |

## Summary of Research Hypothesis One

Fourteen scales on the OPI were analyzed in relation to the 14 background characteristics. Eleven of the 14 background characteristics were found significant at the .05 level or better. On the basis of the results obtained by this study, persisters differ significantly from dropouts on the Impulse Expression Scale when adjusted for (a) sex, (b) marital status, (c) employment status (hours employed), (d) size of community where reared the most years, (e) the number of schools attended, (f) plans for completing a two-year or a four-year degree, (g) plans for transferring, (h) language spoken in the home, (i) income of the family, (j) educational level of the father, (k) educational level of the mother, (1) major field of study, (m) religious preference, and ( n ) composite ACT score.

Research Hypothesis Two

The second hypothesis stated there will be no significant difference between persisters and dropouts who were freshmen women home economics students and other freshmen women students as measured by the scores on the OPI with respect to the 13 background characteristics. Only those scales on the OPI having significant background characteristics by using the "F" test are reported in this study. The background characteristics that had categories without frequencies are not listed in the tables. The mean values for the background characteristics which were significant are reported for interpretation of the analysis of variance.

Estheticism (Tables LIII, LIV, LV, and LVI). Significant differences on three of the background characteristics for women in relation to the Es Scale were noted: size of community where reared the greatest number of years, at the .03 level; number of schools attended at the . 006 level; and plans for completing a degree at the . 01 level.

The women from larger cities (Table LIV) scored higher than those from cities and rural areas: The respondents usually had an interest in art, literature, and dramatics.

The women who scored highest on the Es Scale when considering the number of schools attended were those who had attended $2,4,5,6$, or 7 schools (Table LV). These students usually enjoyed listening to poetry, looking at paintings, and reading about artistic and literary achievements. The students who attended 1, 2, or 12 schools generally were not so interested in artistic and literary achievements as others.

## TABLE LIII

SIGNIFICANT DIFFERENCE FOR WOMEN ON ESTHETICISM SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DF | Partial Sum of Squares | F Value | $\sum_{F}^{\text {Prob. }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Persist | 1 | 14.53 | . 22 | . 64 |
| Marital Status | 2 | 18.48 | . 14 | . 87 |
| Hours Employed | 2 | 170.02 | 1.27 | . 29 |
| Community Size | 3 | 631.09 | 3.13 | .03* |
| Schools Attended | 1 | 542.95 | 8.09 | .006* |
| Plans for Completing Degree | 2 | 662.74 | 4.93 | . $01 *$ |
| Type of Degree | 4 | 265.66 | . 99 | . 58 |
| Plans for Transferring | 2 | 303.65 | 2.26 | . 11 |
| Family Income | 7 | 504.67 | 1.07 | . 40 |
| Educational Level of Father | 2 | 38.48 | . 29 | . 76 |
| Educational Level of Mother | 2 | 22.69 | . 17 | . 85 |
| Major Field of Study | 1 | 225.13 | 3.35 | . 07 |
| Religious Preference | 9 | 671.20 | 1.11 | . 37 |
| ACT Score | 23 | 1631.10 | 1.06 | . 43 |

*Significant at the . 05 level

TABLE LIV
MEAN FOR WOMEN ON ES SCALE IN RELATION TO COMMUNITY SIZE

| Size of Community | N | Mean | SD |
| :--- | ---: | :--- | :--- |
|  |  | 48 | 44.44 |
| Rural Area (Open Country, Farm) | 47 | 46.53 | 8.34 |
| Town (Under 20,000 Population) | 11 | 42.91 | 7.84 |
| City (20,000 to 100,000) | 2 | 50.50 | 3.72 |
| Large City (More Than 100,000) | 108 |  |  |

TABLE LV

MEAN FOR WOMEN ON ES SCALE IN RELATION
TO NUMBER OF SCHOOLS ATTENDED

| Number of <br> Schools <br> Attended | N |  |  |
| ---: | ---: | ---: | ---: |
|  |  | Mean | SD |
| 1 | 38 | 42.08 | 7.03 |
| 2 | 29 | 47.41 | 7.79 |
| 3 | 16 | 45.81 | 8.12 |
| 4 | 8 | 48.38 | 10.78 |
| 5 | 7 | 47.00 | 6.86 |
| 6 | 6 | 47.83 | 10.76 |
| 7 | 2 | 47.00 | 1.41 |
| 12 | 2 | 44.50 | 20.51 |

The women who gave no response to their plans for completing a degree scored higher than those women who answered yes or no to the question of "Do you plan to complete a degree at PSU?" Those women who gave no response were more inclined toward interest in the humanities. Those students who answered yes or no were not so interested in artistic or 1iterary achievements as others.

Autonomy (Tables LVII and LVIII). The characteristics found to be significant for the women on the AU Scale were the number of schools attended. The level of significance was at the . 03 level.

TABLE XVI
MEAN FOR WOMEN ON ES SCALE IN RELATION TO PLANS FOR COMPLETING A DEGREE

| Plans for <br> Completing <br> a Degree | N |  |  |
| :--- | :---: | :---: | ---: |
| No Response | 2 | 48.50 | Mean |
| Yes | 67 | 45.21 | 14.85 |
| No | 39 | 45.31 | 7.88 |
| TOTAL | 108 | 8.79 |  |

TABLE LVII
SIGNIFICANT DIFFERENCE FOR WOMEN ON AUTONOMY SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DFPartial Sum <br> of Squares | F Value | Prob。 |  |
| :--- | ---: | ---: | ---: | ---: |
| Persist | 1 | .60 |  | .92 |
| Marital Status | 2 | 78.04 | .68 | .52 |
| Hours Employed | 2 | 38.31 | .33 | .72 |
| Community Size | 3 | 293.32 | 1.70 | .18 |
| Schools Attended | 1 | 294.36 | 5.13 | $.03 *$ |
| Plans for Completing Degree | 2 | 149.71 | 1.30 | .28 |
| Type of Degree | 4 | 110.26 | .48 | .75 |
| Plans for Transferring | 2 | 116.83 | 1.02 | .37 |
| Family Income | 7 | 181.56 | .45 | .86 |
| Educational Level of Father | 2 | 53.76 | .47 | .63 |
| Educational Level of Mother | 2 | 122.54 | 1.07 | .35 |
| Major Field of Study | 1 | 6.61 | .12 | .74 |
| Religious Preference | 9 | 466.18 | .90 | .53 |
| ACT Score | 23 | 1260.29 | .96 | .53 |

[^2]The women who had attended 3,6 , or 12 schools scored higher than those attending $1,2,4,5$, or 7 schools. Those women who scored high tended to be independent of authority as traditionally imposed through social institutions. Those scoring lower usually felt that parents prove to know best and do not tolerate viewpoints other than their own.

TABLE LVIII
MEAN FOR WOMEN ON AU SCALE IN RELATION TO NUMBER OF SCHOOLS ATTENDED

| Number of <br> Schools <br> Attended | N | Mean | SD |
| :---: | :---: | :---: | :---: |
|  | 38 | 42.58 |  |
| 1 | 29 | 41.10 | 7.10 |
| 2 | 16 | 46.44 | 7.70 |
| 3 | 8 | 43.13 | 8.94 |
| 4 | 7 | 39.29 | 4.75 |
| 5 | 6 | 45.67 | 6.47 |
| 6 | 2 | 41.00 | 1.41 |
| 7 | 2 | 44.50 | 3.54 |
| 12 | 108 |  |  |

Religious Orientation (Tables LIX, LX, and LXI). The women scored significantly different on the RO scale in relation to their marital status and plans for transferring. The level of significance for the marital status was at the .003 level and plans for transferring was significant at the . 03 level.

TABLE LIX

SIGNIFICANT DIFFERENCE FOR WOMEN ON RELIGIOUS ORIENTATION SCALE IN RELATION TO BACKGROUND CHARACTERISTICS

| Characteristic | DF | Partial Sum <br> of Squares | F Value | Prob。 <br> F |
| :--- | ---: | ---: | ---: | :--- |
| Persist | 1 | 4.15 | .16 | .69 |
| Marital Status | 2 | 364.92 | 7.02 | $.003^{*}$ |
| Hours Employed | 2 | 60.69 | 1.17 | .32 |
| Community Size | 3 | 146.27 | 1.88 | .15 |
| Schools Attended | 1 | 71.66 | 2.76 | .10 |
| Plans for Completing Degree | 2 | 109.19 | 2.10 | .13 |
| Type of Degree | 4 | 216.45 | 2.08 | .10 |
| Plans for Transferring | 2 | 187.82 | 3.61 | $.03 *$ |
| Family Income | 7 | 183.42 | 1.01 | .44 |
| Educational Level of Father | 2 | 49.51 | .95 | .60 |
| Educational Level of Mother | 2 | 49.91 | .96 | .61 |
| Major Field of Study | 1 | 66.79 | 2.57 | .12 |
| Religious Preference | 9 | 362.24 | 1.55 | .16 |
| ACT Score | 23 | 910.30 | 1.52 | .11 |

*Significant at the . 05 level

The women who were engaged (Table LX) scored significantly higher while the women in the single category scored lowest on the RO scale. The students who were engaged usually denied that one must not associate with those who do not claim. to believe in God. The women students who indicated they were single usually preferred being with people who were religious:

TABLE LX

MEAN FOR WOMEN ON RO SCALE IN RELATION TO MARITAL STATUS

| Marital Status | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| Single | 98 | 44.93 | 5.79 |
| Engaged | 1 | 65.00 | - |
| Married and Living <br> With Spouse | 9 | 47.22 | 7.16 |
| TOTAL | 108 |  |  |

The women who indicated they were planning not to transfer scored higher on the RO scale than did those who gave no response when asked if they were planning to transfer. Those women not planning to transfer tended to believe that everyone should not have complete faith in a supernatural power. Those who listed no response tended to believe there was something wrong with a person who lacks religious feelings.

Social Extroversion. (Tables LXII, LXIII, LXIV, LXV, and LXVI). Five of the background characteristics were found to have significance for women in relation to the SE Scale. These included the size of the community where reared the greatest number of years, . 009 level of significance; type of degree planned,... 04 level of significance; plans for transferring at the . 04 level of significance; and religious preference at the . 05 leve 1 of significance.

TABLE LXI
MEAN OF RO SGALE IN RELATION TO PLANS FOR TRANSFERRING

| Plans for <br> Transferring | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| No Response | 5 | 41.80 | 3.96 |
| Yes | 30 | 44.17 | 5.15 |
| No | 73 | 46.01 | 6.59 |
| TOTAL | 108 |  |  |

TABLE LXII
SIGNIFICANT DIFFERENCT FOR WOMEN ON SOCIAL EXTROVERSION SCALE IN RELATION TO BACKGROUND

CHARACTERISTICS

| Characteristic | DF | Partial Sum <br> of |  |  |
| :--- | ---: | ---: | ---: | :--- |
|  |  |  |  |  |

*Significant at the . 05 level

The mean scores in Table LXIII indicated that the women who were reared in cities and town were significantly higher than those who were reared in rural areas or large cities. Those students reared in cities and town usually preferred being with people while those from rural areas and large cities tended to withdraw from social contacts and responsibilities.

TABLE LXIII
MEAN FOR WOMEN ON SE SCALE IN RELATION TO COMMUNITY SIZE

| Size of <br> Community | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| Rura1 Area <br> (Open Country, <br> Farm) | 48 | 48.81 | 8.76 |
| Town (Under 20,000 <br> Population) | 47 | 52.06 | 9.42 |
| City (20,000 to <br> 100,000) | 11 | 55.27 | 9.00 |
| Large City (More <br> Than 100,000) | 2 | 38.00 | 24.04 |
| TOTAL | 108 |  |  |

The mean scores were higher in Table LXIV for those students choosing a type of degree either BS, BA, or Associate than for those choosing a certificate or indicating no response. Those students who indicated
pursuing a degree usually preferred being with people and enjoyed relating to people in a social context. Those women who indicated no response or certificate usually choose to withdraw from social situations.

TABLE LXIV
MEAN FOR WOMEN OF SE SCALE IN RELATION TO TYPE OF DEGREE PLANNED

| Type of Degree | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| No Response | 48 | 48.98 | 10.10 |
| Bachelor of Science | 21 | 51.29 | 11.23 |
| Bachelor of Arts | 16 | 55.50 | 6.41 |
| Associate Degree | 2 | 52.50 | 3.54 |
| Certificate | 20 | 50.10 | 8.61 |
| TOTAL | 107 |  |  |

The women who answered no to the questions of plans for transferring scored highest on the SE Scale (Table LXV). Those women who did not plan to transfer usually enjoyed attending social functions and being with people, according to Heist and Yonge's interpretation.

## TABLE LXV

MEAN OF SE SCALE IN RELATION
TO PLANS FOR TRANSFERRING

| Plans for |  |  |  |
| :--- | :---: | :---: | :---: |
| Transferring | N | Mean | SD |
| No Response | 5 | 46.60 | 8.20 |
| Yes | 30 | 49.67 | 9.67 |
| No | 73 | 51.38 | 9.68 |
| TOTAL | 108 |  |  |

The women who indicated a religious preference for Apostolic Faith were highest in Social Extroversion while the Presbyterians received the lowest score (Table LXVI): Other high scorers indicated a preference for Catholic, Baptist, Lutheran, Christian, and Other Christian. Those were the persons who enjoyed being with people and attending social functions. They appeared to gain satisfaction from social activities.

Practical Outlook (Tables LXVII, LXVIII, LXIX, and LXX). A significant difference was found for three of the background characteristics with women in relation to the PO Scale. Plans for completing a degree was significant at the . 04 level, type of degree was significant at the .009 leve1, and religious preference at the .03 level.

TABLE LXVI

## MEAN FOR WOMEN ON SE SCALE IN RELATION TO RELIGIOUS <br> PREFERENCE

| Religious <br> Preference | N |  |  |
| :--- | ---: | ---: | ---: |
|  |  | Mean |  |
| No Response | 5 | 43.20 | 12.87 |
| Catholic | 7 | 53.29 | 11.06 |
| Baptist | 26 | 53.23 | 9.02 |
| Methodist | 36 | 49.39 | 8.29 |
| Church of Christ | 7 | 46.43 | 7.63 |
| Apostolic Faith | 4 | 58.75 | 8.30 |
| Lutheran | 8 | 50.50 | 6.76 |
| Presbyterian | 1 | 21.00 | - |
| Christian | 7 | 53.71 | 8.22 |
| Other Christian | 7 | 51.71 | 12.05 |
|  |  |  |  |

The women who answered "yes, they planned to obtain a degree at PSU' (Table LXVIII) scored highest. The lowest scores were from the students who gave no response to the question. Those women planning to complete a degree at PSU usually preferred practical applications on tests. They preferred certainty and an established order in what they were doing.

PSU women who indicated a plan to obtain a Bachelor of Science Degree, Associate Degree or Certificate scored higher on the PO Scale (Table LXIX) than others. Those women were inclined to believe that the best theory is the one that has the best practical application.

TABLE LXVII
SIGNIFICANT : DIFFERENCE FOR WOMEN ON
PRACTIGAL OUTLOOK SCALE IN
RELATION TO BACKGROUND
CHARACTERISTICS

| Characteristic | DFPartial Sum <br> of Squares | F Value | Prob. |  |
| :--- | ---: | ---: | ---: | ---: |
| Persist |  |  |  |  |
| Marital Status | 1 | 141.49 | 2.84 | .10 |
| Hours Employed | 2 | 65.86 | .66 | .53 |
| Community Size | 2 | 70.04 | .70 | .50 |
| Schools Attended | 3 | 127.90 | .86 | .53 |
| Plans for Completing Degree | 1 | 191.97 | 3.86 | .06 |
| Type of Degree | 2 | 340.82 | 3.42 | $.04 *$ |
| Plans for Transferring | 4 | 754.41 | 3.79 | $.009 *$ |
| Family Income | 2 | 14.17 | .14 | .87 |
| Educational Level of Father | 7 | 275.23 | .79 | .60 |
| Educational Level of Mother | 2 | 85.87 | .86 | .57 |
| Major Field of Study | 2 | 30.94 | .31 | .74 |
| Rligious Preference | 1 | .60 | .01 | .91 |
| ACT Score | 9 | 1058.60 | 2.36 | $.03 *$ |
|  | 23 | 1562.18 | 1.36 | .18 |

*Significant at the . 05 level

TABLE LXVIII

MEAN FOR WOMEN ON PO SCALE IN RELATION TO PLANS :FOR COMPLETING A DEGREE

| Plans for <br> Completing a Degree | N | Mean | SD |
| :--- | :--- | :--- | :--- |
| No Response | 2 | 47.50 | 23.33 |
| Yes | 67 | 56.18 | 6.61 |
| No | 39 | 54.28 | 8.44 |
| TOTAL | 108 |  |  |

Freshmen women who indicated no response or a BA degree usually found greater appeal in ideas than in the facts and liked to discuss philosophical problems.

TABLE LXIX
MEAN FOR WOMEN ON PO SCALE IN RELATION TO TYPE OF DEGREE PLANNED

| Type of Degree | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| No Response | 48 | 52.60 | 9.01 |
| Bachelor of Science | 21 | 57.43 | 6.60 |
| Bachelor of Arts | 16 | 55.56 | 4.97 |
| Associate Degree | 2 | 58.00 | 8.49 |
| Certificate | 20 | 58.85 | 4.90 |
| TOTAL | 107 |  |  |

The women who responded to the religious preference with Church of Christ, Lutheran, Baptist, and Apostolic Faith were the groups that scored highest on the PO scale. These women were usually interested in practical, appiied activities and tended to value material possessions. Those who gave no response scored lowest and generally preferred a man of ideas to the practical man.

TABLE LXX

MEAN FOR WOMEN ON PO SCALE IN RELATION TO RELIGIOUS PREFERENCE

| Religious <br> Preference | N | Mean | SD |
| :--- | ---: | ---: | ---: |
| No Response | 5 | 47.80 | 8.87 |
| Catholic | 7 | 54.57 | 5.06 |
| Baptist | 26 | 56.31 | 9.54 |
| Methodist | 36 | 54.97 | 7.43 |
| Church of Christ | 7 | 59.43 | 4.35 |
| Apostolic Faith | 4 | 55.00 | 8.04 |
| Lutheran | 8 | 50.38 | 5.53 |
| Presbyterian | 1 | 54.57 | 5.62 |
| Christian | 7 | 55.00 | 8.81 |
| Other Christian | 7 |  |  |

Masculinity-Femininity (Tables LXXI, LXXII, and LXXIII). The size of community where reared the greatest number of years was found to be significant at the .01 level and the religious preference was found to be significant at the . 02 level when considering the MF Scale for women.

The women from the large cities scored highest in Table LXXII on the MF Scale indicating a tendency toward masculinity. They were inclined to prefer chemistry, physics, and mathematics. Those women from the towns usually were more feminine and liked dramatics and 1iterature。

TABLE LXXI

## SIGNIFICANT DIFFERENCES FOR WOMEN ON MASCULINITY-FEMININITY SCALE IN RELATION TO BACKGROUND <br> CHARACTERISTICS

| Characteristic | DFPartial Sum <br> of Squares | F Value | Prob. |  |
| :--- | ---: | ---: | ---: | ---: |
| Persist | 1 | 50.07 | 1.38 | .25 |
| Marital Status | 2 | 27.38 | .38 | .69 |
| Hours Employed | 2 | 43.61 | .60 | .56 |
| Community Size | 3 | 445.05 | 4.08 | $.01 *$ |
| Schools Attended | 1 | 84.53 | 2.33 | .13 |
| Plans for Completing Degree | 2 | 70.49 | .97 | .61 |
| Type of Degree | 4 | 298.58 | 2.05 | .10 |
| Plans for Transferring | 2 | 19.60 | .27 | .77 |
| Family Income | 7 | 257.04 | 1.01 | .44 |
| Educational Level of Father | 2 | 36.71 | .51 | .61 |
| Educational Level of Mother | 2 | 59.79 | .82 | .55 |
| Major Field of Study | 1 | .96 | .02 | .89 |
| Religious Preference | 9 | 838.49 | 2.56 | $.02 *$ |
| ACT Score | 23 | 1125.69 | 1.35 | .19 |

*Significant at the . 05 level

TABLE LXXII

MEAN FOR WOMEN ON MF SCALE IN RELATION
TO COMMUNITY SIZE

| Size of Community | N | Mean | SD |
| :--- | :---: | :---: | :---: |
| Rural Area (Open Country, Farm) | 48 | 47.88 | 6.72 |
| Town (Under 20,000 Population) | 47 | 43.38 | 6.08 |
| City (20,000 to 100,000) | 11 | 47.73 | 6.59 |
| Large City (More than 100,000) | 2 | 51.50 | 4.95 |

The women indicating Presbyterian scored highest on the MF Scale while those indicating Catholic scored lowest. The Presbyterians usually did not get excited easily, were more calm, and did not enjoy social activities. The Catholic women tended to find courses in literature and poetry satisfying, and they usually enjoyed looking at paintings, sculpture, and architecture.

TABLE LXXIII
MEAN FOR WOMEN OF MF SCALE IN RELATION TO RELIGIOUS PREFERENCE

| Religious <br> Preference | N | Mean | SD |
| :--- | ---: | :--- | ---: |
| No Response | 5 | 42.60 | 7.77 |
| Catholic | 7 | 40.71 | 4.72 |
| Baptist | 26 | 48.27 | 7.68 |
| Methodist | 36 | 46.67 | 6.46 |
| Church of Christ | 7 | 47.29 | 6.87 |
| Apostolic Faith | 4 | 46.75 | 4.27 |
| Lutheran | 8 | 41.88 | 4.55 |
| Presbyterian | 1 | 55.00 | - |
| Christian | 7 | 45.86 | 3.39 |
| Other Christian | 7 | 43.29 | 7.25 |
|  |  |  |  |
| TOTAL | 108 |  |  |

Summary of Research Hypothesis Two

Fourteen scales on the OPI were tested by the analysis of variance in relation to the 15 measures of the 14 background characteristics.

Six of the scales had significant background characteristics. Seven of the 15 background characteristics were significant at the .05 level or better. There was a total of 16 background characteristics that were significant when analyzed with the OPI scales. On the basis of the results obtained by this study, persisters do not differ significantly from dropouts on OPI scales when adjusted for (a) marital status, (b) employment status (hours employed), (c) size of community where reared the most years, (d) number of schools attended, (e) plans for completing a two-year degree or a four-year degree, (f) plans for transferring, (h) income of the family, (j) educational level of the mother, (k) educational level of the father, (1) religious preference, and (m) composite ACT score. Since all the women were English speaking, variable (g) language spoken in the home, was not considered for this hypothesis.

## Coefficient of Multiple Determination

Guilford and Fruchter (1973) stated the coefficient of multiple correlation indicates the strength af relationship between one variable and two or more others combined with optimal weights. The coefficient of multiple determination, often referred to as R Square, tells the proportion of variance in OPI scales that was dependent upon the background characteristics (Table LXXIV). In the case of all the freshmen students, the variance on the OPI scale scores associated with the background characteristics ranged from 28 percent to 51 percent. When only the women were considered from 54 percent to 71 percent of the variance associated with the background characteristics was accounted for by the OPI scale scores.

The amount of explained variance was greater for all scales of the OPI with women freshmen students. It might be assumed that with this

TABLE LXXIV

```
COEFFICIENT OF MULTIPLE DETERMINATION WITH
    OPI SCALE SCORES FOR ALL FRESHMEN
        STUDENTS AND FRESHMEN
            WOMEN STUDENTS
```

|  |  | Students |  |
| :--- | :---: | :---: | :---: |
| OPI Scale | All Freshmen | Women Only |  |
| Thinking Introversion | .34 | .55 |  |
| Theoretical Observation | .33 | .54 |  |
| Estheticism | .37 | .58 |  |
| Complexity | .28 | .56 |  |
| Autonomy | .30 | .57 |  |
| Religious Orientation | .35 | .71 |  |
| Social Extroversion | .37 | .67 |  |
| Impulse Expression | .39 | .60 |  |
| Personal Integration | .29 | .68 |  |
| Anxiety Level | .28 | .54 |  |
| Altruism | .44 | .60 |  |
| Practical Outlook | .30 | .64 |  |
| Masculinity-Femininity | .51 | .66 |  |
| Response Bias | .33 | .60 |  |
| L |  |  |  |

group of freshmen students, the OPI and the selected background characteristics measured the women freshmen students better than the men and women.

## Summary

All first-time freshmen students are required to enroll in Freshmen Orientation class at Panhandle State University. The 280 students enrolled for the Fall semester, 1974 made up the sample for this study.

In order to describe the persisters and dropouts, a chi-square test was completed for each measure of the background characteristics. The two background characteristics found significant were the educational level of the father and the major field of study.

The analysis of variance was used to test hypotheses one and two. In regard to hypothesis one, there was a significant difference in the score on the OPI Scale Impulse Expression of the persisters and dropouts when adjusted for the background characteristics. In regard to hypothesis two, the women persisters did not differ from women dropouts when adjusted for the background characteristics.

The differences found significant (Table LXXV) for all the students showed the Estheticism Scale was significant with the greatest number of background characteristics and the number of schools attended was significant with the greatest number of OPI scales.

For the freshmen women students (Table LXXVI) the Social Extroversion Scale had the greatest number of background characteristics that were significant when analyzed. The size of the community where reared the greatest number of years and religious preference, each were significant with three of the OPI scales.

OPI SCALES HAVING STATISTICAL SIGNIFICANCE WITH BACKGROUND
CHARACTERISTICS FOR ALL FRESHMEN STUDENTS

| Background Characteristic | OPI Scales |  |  |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TI | T0 | Es | Co | Au | RO | SE | IE | PI | AL | Am | PO | MF | RB |  |
| Persist |  |  |  |  |  |  |  | X |  |  |  |  |  |  | 1 |
| Marital Status |  |  |  |  |  |  |  |  |  |  | X |  |  |  | 1 |
| Hours Employed |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Community Size |  |  | X |  |  |  | X |  |  |  |  |  |  |  | 2 |
| Schools Attended | X | X | x |  |  |  |  |  |  |  |  | x |  |  | 4 |
| Plans for Completing Degree |  |  |  |  |  |  |  |  |  |  |  |  |  | x | 1 |
| Type of Degree |  |  |  |  |  |  | X |  |  |  |  |  |  |  | 1 |
| Plans for Transferring |  | x |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Language Spoken in the Home |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Family Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Educational Level of Father |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Educational Level of Mother |  | x |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Major Field of Study | X |  | X |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Religious Preference |  |  | X |  |  | X |  |  |  |  |  |  |  |  |  |
| ACT Score |  |  |  |  |  |  |  |  |  |  | x |  |  |  | 1 |
| TOTAL | 2 | 3 | 4 | - | - | 1 | 2 | 1 | - | - | 2 | 1 | - | 1 | 17 |

TABLE LXXVI
OPI SCALES HAVING STATISTICAL SIGNIFICANCE WITH BACKGROUND CHARACTERISTICS FOR FRESHMEN WOMEN STUDENTS

| Background Characteristic | TI | T0 | Es | Co | Au | OPI Scales |  |  | PI | AL | Am | PO | MF | RB | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | R0 | SE | IE |  |  |  |  |  |  |  |
| Persist |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Marital Status |  |  |  |  |  | X |  |  |  |  |  |  |  |  | 1 |
| Hours Employed |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Community Size |  |  | X |  |  |  | X |  |  |  |  |  | X |  | 3 |
| Schools Attended |  |  | X |  | X |  |  |  |  |  |  |  |  |  | 2 |
| Plans for Completing Degree |  |  | X |  |  |  |  |  |  |  |  | X |  |  | 2 |
| Type of Degree |  |  |  |  |  |  | X |  |  |  |  | X |  |  | 2 |
| Plans for Transferring |  |  |  |  |  | X | X |  |  |  |  |  |  |  | 2 |
| Language Spoken in the Home |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Family Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Educational Level of Father |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Educational Level of Mother |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Major Field of Study |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Religious Preference |  |  |  |  |  |  | X |  |  |  |  | X | X |  | 3 |
| ACT Score |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| TOTAL | - | - | 3 | - | 1 | 2 | 4 | - | - | - | - | 3 | 2 | - | 15 |

## CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter will be concerned with five areas: (1) a review of the study, (2) limitations, (3) findings, (4) conclusions, and (5) implications.

## Review of the Study

## The Problem of the Study

This study was concerned with the personality characteristics and background information that would distinguish freshmen college students as persisters or dropouts. The Omnibus Personality Inventory and selected background information were used to differentiate the potential dropout from a student that would persist.

The Purpose of the Study

The primary purpose of the study was to establish criteria from the first-time freshmen students in order to determine the background information and personality characteristics that distinguish the potential dropout or persister. This data could be helpful in assisting the counselors, advisers, and the students to better meet the needs of those enrolling in college. If the needs of the students are met, this could help in obtaining the ultimate educational goal of reducing the attrition rate。

The Procedures of the Study

Data for this study were derived from a Freshmen Student Questionnaire, official enrollment card, records in the registrar's office, and the Omnibus Personality Inventory, completed by the students enrolled in the Freshmen Orientation class. The questionnaire measured nine of the background characteristics. Information from the enrollment card and records in the registrar's office were used to measure five of the background characteristics. The OPI was administered according to company instructions. It was mailed to The Psychological Corporation for scoring and punching of cards.

The OPI was designed to measure the differences among college students with regard to their attitudes, opinions, and feelings on a variety of subjects. The instrument contains 385 items for the following 14 scales: Thinking Introversion, Theoretical Observation, Estheticism, Complexity, Autonomy, Religious Orientation, Social Extroversion, Impulse Expression, Personal Integration, Anxiety Leve1, Altruism, Practical Outlook, Masculinity-Femininity, and Response Bias.

The chi-square test was used to aid in classification of the data. The multivariate analysis of variance was used to test the two hypotheses.

## Limitations

Caution should be used in generalizing the findings of this study since the sample was made up of the students of Panhandle State University and no evidence is available that this was an average group.

Also, the participants attending this college were limited by the area they represent geographically.

## Findings

This study was concerned with determining the background information and personality characteristics that distinguish the persisters and dropouts among college freshmen students. Two research hypotheses were developed to guide the conduct of the study. On the basis of the research findings of this study, the summary of the research hypotheses is as given below.

## Hypothesis One

1. There will be no significant differences between persisters and dropouts as measured by scores on the Omnibus Personality Inventory with respect to each of the background characteristics listed below.
a. sex
b. marital status
c. employment status (hours employed)
d. size of community where reared the most years
e. number of schools attend
f. plans for completing a two-year degree or a four-year degree
g. plans for transferring
$h$. language spoken in the home
i. income of the family
$j$ 。 education level of the father
k . education level of the mother
2. major field of study
m. religious preference
n. composite ACT score

On the basis of the results obtained by this study, persisters differ significantly from dropouts on OPI Scale IE when adjusted for (a) sex, (b) marital status, (c) employment status (hours employed), (d) size of community where reared the most years, (e) number of schools attended, (f) plans for completing a two-year degree or a four-year degree, (g) plans for transferring, (h) language spoken in the home, (i) income of the family, ( $j$ ) educational level of the father, ( $k$ ) educational level of the mother, (1) major field of study, (m) religious preference, and ( n ) composite ACT score.

Hypothesis Two
2. There will be no significant differences between persisters and dropouts who are freshmen women home economics students and other freshmen women students as measured by the scores on the Omnibus Personality Inventory with respect to each of the background characteristics listed below.
a. marital status
b. employment status (hours employed)
c. size of community where reared the most years
d. number of schools attended
e. plans for completing a two-year degree or a four-year degree
f. plans for transferring
g. language spoken in the home
h. income of the family
i. educational level of the father
j. educational level of the mother
k. major field of study
1.. religious preference
m. composite ACT score

On the basis of the results obtained by this study, persisters do not differ significantly from dropouts on the OPI scales when adjusted for (a) marital status, (b) employment status (hours employed), (c) size of community where reared the most years, (d) number of schools attended, (e) plans for completing a two-year degree or a four-year degree, (f) plans for transferring, (h) income of the family, (i) educational leve1 of the father, (j) educational level of the mother, (k) major field of study, (1) religious preference, and (m) composite ACT score.

Conclusions

Inspection and interpretation of the study findings aided the formulation of certain conclusions by the investigator as detailed below. Conclusion 1-Persistence

Impulse Expression. On the basis of this study, dropouts were more impulsive than persisters. This finding was in agreement with Hannah (1971).

## Conclusion 2-Marital Status

Altruism. On the evidence of this study, both the married and single students were more generous and exhibited selflessness. Religious Orientation. The single women students were generally more religious than married or engaged women. These findings were found to agree with Hannah (1971) in reference to the Altruism scale that students who did not drop out were more altruistic. Bourgeois (1966) found that single
women students were more religious. She disclosed that 85 percent of the students were single.

## Conclusion 3 - Size of Home Town

Estheticism. The sample of this study showed that the students from large cities (more than 100,000 ) have more interest in art, literature, and dramatics. Social Extroversion. Freshmen students from cities ( 20,000 to 100,000 ) and towns (under 20,000 ) enjoyed social contacts, social responsibilities, and relating to people. MasculinityFemininity. The women from large cities ( 100,000 or more) were inclined to be more masculine. Bourgeois (1966) and Brawer (1973) found the size of the home town significant for persisters and dropouts. Brawer found students who persist were the freshmen that were heterogenious and individual differences were tolerated. Bourgeois found that home economics students who came from small towns (less than 5,000 population) were more likely to graduate than those from larger cities.

## Conclusion 4-Number of Schools Attended

Estheticism。 In general, this study showed that the women students who had attended a greater number of schools (12) or a few schools (1) were not so interested in artistic-matters as those who had changed schools several times. Thinking Introversion. The women who had attended a few schools expressed interests in a broad range of ideas in several areas. Theoretical Observation. They tended not to like science, mathematics, or research. Practical Outlook. Practical applications were usually preferred by those students. Autonomy. The
freshmen students who had attended five schools were less independent than the other students in the sample.

Cohen and Brawer (1970) found that persisters did not attend so many schools prior to the tenth grade as did dropouts. Hannah (1971) reported findings that differed from those obtained in this study. He found none of the scales were significant with the number of schools attended.

## Conclusion 5-P1ans for Completing a Degree

and Type of Degree

Practical Outlook. On the basis of this study, the women planning to complete a degree at PSU preferred practical applications. Theoretieal Observation. Those planning a Bachelor of Science, Associate Degree, or certificate preferred practical, applied activities. Social Extroversion. The women planning to obtain a Bachelor of Arts degree were more inclined toward being a social extrovert. Response Bias. Men and women indicating a plan for a Bachelor of Arts or Associate Degree enjoyed being with people and usually found it hard to concentrate on a problem for more than an hour or two. Jacob (1957) found that students who persist were more social extroverts. Bolerjack (1968) found that women wanted practical answers and applications to problems.

Conclusion $6-$ Plans to Transfer
.....Theoretical Observation. Based on the evidence of this study, the students planning to transfer may be logical, analytical, and critical in the way they approach problems. Religious Orientation. The women not planning to transfer usually believed that each person is entitled
to his own belief in God. Social Extroversion. The women not planning to transfer also were more socially extroverted.

According to the study by Coffelt and Hobbs (1964) some freshmen are enrolling in colleges for training without the intention of obtaining a degree or persisting. Bourgeois (1966) and Aery (1974) studied the reasons for withdrawal from college. Financial, health, and registrar were reasons given by OSU students for withdrawl.

Conclusion 7 - Educational Level of the Mother

Theoretical Observation. The sample for this study showed that the students whose mothers had less than a high school education preferred thought-provoking ideas about scientific or mathematical ideas. Bolerjack (1964) found that the educational level of the mother of college persisters tended to be higher than the level of mothers of college dropouts.

Conclusion 8 - Major Field of Study

Thinking Introversion. On the basis of this study, home economics majors may have lower standards for course work than other students. Estheticism. They tend not to be as interested in artistic or literary achievements as other students. Cross (1971) found that the women scored higher on fondness for working with ideas and abstractions in a variety of literature, art, and philosophy and on esthetic application, when compared with men. To the writers know1edge a study comparing women had not been conducted.

## Conclusion 9 - Religious Preference

Religious Orientation. On the evidence of this study, Church of Christ, Lutheran, and Baptist indicated a tendency toward a belief that theirs were the only true approaches to God. Estheticism. The Presbyterian, Lutheran, and Catholic students were more inclined to have interest in humanities, literature, and dramatics. Social Extroversion. Apostolic Faith, Catholic, Baptist, Lutheran, Christian, and other Christian were more social extroverts than the other religious groups. Practical Outlook. The women who indicated Church of Christ, Lutheran, Baptist, and Apostolic Faith generally were interested in practical, applied activities. Masculinity-Femininity. The Presbyterians were the group inclined toward the masculine characteristics while the Catholic women were the most feminine. Bourgeois (1966) and Jacob (1957) found that factors such as religion were assumed to be related to persistence. Bourgeious found that home economics students who were Catholic were more persistent than non-Catholic students.

## Conclusion 10 - Composite ACT Score

Practical Outlook. The evidence of this study showed that the freshmen students with higher scores on the ACT had stronger feelings for working with people and generally were concerned for the welfare of other people than did others. Lehmann (1965) indicated that persistence in college should depend mostly on the intellectual ability of the student.

## Conclusion 11-Male and Female

Estheticism, Religious Orientation, Social Extroversion, Impulse Expression, Altruism, Masculinity-Femininity, and Response Bias. On the basis of this research, the women freshmen students could be described as more inclined toward artistic, humanities, and literary achievements, liked certainty, preferred people who were religious, enjoyed being with people, were not so impulsive as males, were trusting and ethical in dealing with others, enjoyed thinking about challenging problems and were feminine. These findings agree with the description found in the study by Cross (1971)。

## Implications

On the basis of the data obtained by this study, certain implications which may have relevance for teachers, administrators, and advisers, and further study were developed. Attention is called to the following。

1. Longitudinal studies are needed to compare students' personality characteristics and background information with those of students not entering college to determine differences between those persons attending college and those not attending postsecondary institutions.
2. Research related to personality characteristics and background information in relation to persisters and dropouts should be continued to establish more valid bases for counseling and advising potential college students.
3. Properly coordinated, area or statewide studies of the student personality characteristics and background information of
persisters and dropouts would provide another dimension for planning. To the writer's knowledge, no other institutions in Oklahoma have carried out a study of this nature.
4. Research related to the home economics students in an area, region, or state should be coordinated to further establish personality characteristics and background information related to attrition rate in the subject matter area.
5. Regarding the value of this study to the institution at which it was made--by examining these measurements of personality characteristics and background information and by noting those areas of significance, both faculty and administration can gain a better understanding of the freshmen student. Inservice training could be used to assist the advisers in gaining insight of the freshment student. The information obtained about students during enrollment should be revised to include the significant background characteristics. This kind of information should enhance the setting of goals for counseling and recruiting of students.

Summary

The major purpose of this study was to determine if possible a method of use for the personality test and background information to distinguish freshmen college students as persisters or dropouts. The findings of this study revealed that the Omnibus Personality Inventory could be used to establish the significant personality characteristics. Eleven of the different background characteristics were found significant with the OPI scales.

The chi-square test revealed as significantly different the dropouts whose fathers had less than a high school education and those who had not declared a major field of study. The Impulse Expression Scale was found statistically significant. Dropouts tended to be more impulsive than persisters.

On the basis of the statistical findings of the study, various conclusions and implications which related to the administration and faculty were stated. Counseling, advising, and recruiting procedures and methods should be revised to reflect the recognized need for a better understanding of students. Also, suggestions for further research were given.

## A SELECTED BIBLIOGRAPHY

Aery, Shaila.
1974 Personal Interview. April 8, 1974.
Admissions Testing Program。
1974 The College Board News. (September), p. 1, 4.
1974 College-Bound Seniors, 1973-74. New York: College Entrance Examination Board.

American Home Economics Association.

1970 Proposed Accreditation Documents for Undergraduate Programs in Home Economics. Washington, D.C.: American Home Economics Association.

Astin, Alexander W.
1971 Predicting Academic Performance in College. New York: The Free Press.

1975 Preventing Students From Dropping Out. San Francisco: JosseyBass.

Bock; R. Darre11.
1966. Handbook of Multivariate Experimental Psychology. Raymond B. Cattell, ed. Chicage: Rand McNally and Co.

Bolerjack, Sandra Marie.
1968 "Follow-Up Study of Freshmen Who Entered the Schools of Home Economics in 1964." (Unpublished Master's Thesis, Texas Technological College).

Bourgeois, Genevieve.
1966 "Student Withdrawal in Home Economics at the University of Southwestern Louisiana During a Ten-Year Period." (Unpublished Master's Thesis, University of Southwestern Louisiana).

Brawer, Florence B.

1973 New Perspectives on Personality Development in College Students. San Francisco: Jossey-Bass.

Buros, Oscar Krisden, ed.
1972 Seventh Mental Measurements Yearbook. Highland Park, New Jersey: The Cryphon Press.

Chansky, Norman M.
1966 Untapped Good. Springfield, Illinois: Charles C. Thomas.
Coan, Richard W.

1972 Seventh Menta1 Measurements Yearbook. Oscar K. Buros, ed. Highland Park, New Jersey: The Cryphon Press.

Chickering, Arthur W.
1972: Education and Identity. San Francisco: Jossey-Bass.
Chou, Ya-1un
1975 Statistical Analysis. New York: Holt, Rinehart and Winston.
Coffelt, John Jo and Dan S. Hobbs.
1964 In and Out of College. Oklahoma City: Oklahoma State Regents for Higher Education.

Cohen, Arthur M. and Florence B. Brawer.
1970 Student Characteristics: Personality and Dropout Propensity. Washington, D.C.: American Association of Junior Colleges.

Cross, K. Patricia.
1971 Beyond the Open Door. San Francisco: Jossey-Bass.
Dismuke, Linda Ann.
1973 "The Development of a Student-to-Student Assistance Program for Female Home Economics Students at Oklahoma State University." (Unpublished Master's Thesis, Oklahoma State University).

Feichtner，Shelia Harty．
1969 ＂College－Bound High School Senior Gir1s，Concept of a College Major in Home Economics and a Career in the Home Economics Profession．＂（Unpublished Master＇s Thesis，Carnegie－Mellon University）．

Foley，James A．and Robert K．Foley．
1969 The College Scene，Students Tell It Like It Is．New York： Cowles Book Co．

Ford，D．H．and H．B．Urban．
1966 ＂College Dropouts：Successes or Failures？＂In The College Dropout and the Utilization of Talent．L．A．Pervin，et al．， eds．Princeton， $\mathrm{N}_{\mathrm{o}} \mathrm{Y}$ 。：Princeton University，pp．83－106．

Goren，Arnold L．
1970 ＂Facts and Fiction About College Dropouts：Reflections of a College Administrator．＂In Antiachievement：Perspectives on School Dropouts．E．F．Hammer，ed．Los Angeles：Western Psychological Services，pp．53－60．

Greene，Bert I．
1966 Preventing Student Dropouts．Englewood Cliffs，New Jersey： Prentice－Hall，Inc．

Guilford，Joy Paul and Benjamin Fruchter．
1973 Fundamental Statistics in Psychology and Education．New York： McGraw－Hill Book Co 。

Hannah，William。
1971 ＂Personality Differentials Between Lower Division Dropouts and Stay－Ins．＂Journal of College Student Personnel，Vo1．12， 16－19。

1969 ＂Dropout－Stayin Personality Diffentials and College Environ－ ments．＂（Unpublished Doctor＇s Dissertation，University of Southern California）．

Heist，Paul．
1968 ＂Creative Students：College Transients．＂In The Creative College Student．Paul Heist，ed．San Francisco：Jossey－ Bass，pp．35－55．

Heist，Paul and George Yonge．
1968 Omnibus Personality Inventory，Form F．New York：The Psychological Corporation．

Hill，Alfred T．
1959 The Small College Meets the Challenge．New York：McGraw－Hill Book Co．

Holland，John L．
1974 ＂Vocational Guidance for Everyone。＂Educational Researcher， Vol．3，No．1，9－15．

Huber，William H．
1971 ＂Channeling Students for Greater Retention．＂College and University，Vol．47，No．1，19－29．

Iffert，R．E．
1957 Retention and Withdrawal of College Students．Washington， D．C．：United States Department of Health，Education，and Welfare。

Jacob，Phillip E．
1957．Changing Values in College．New York：Harper and Brothers．
Kauffman，Joseph F。
1966 ＂The Student in Higher Education．＂In The College and The Student．L．E．Dennis and J．F．Kauffman，eds．Washington， D．C．：American Council on Education，（pp．141－162）．

Kerlinger，Fred N．
1964 Foundations of Behavioral Research．New York：Holt，Rinehart and Winston，Inc．

Kirk，Roger E．
1968．Experimental Design：Procedures for the Behavioral Sciences． Belmont，California：Wadsworth

Lehmann，Irvin J。
1965 ＂American College Students and the Socialization Process．＂ In The College Student．W．B．Brookover，et al．，eds． New York：The Center for Applied Research in Education，Inc．， （pp．58－77）．

Lichter，Solomon O．，et al．
1962 The Drop－Outs．New．York：The Free Press of Glencoe．
McConnell，T．R．and Paul Heist．
1962 ＂The Diverse College Student Population．＂In The American College．Nevitt Sanford，ed．New York：John Wiley and Sons，Inc。，（pp．225－252）．

McReynolds，Paul．
1972 Seventh Mental Measurements Yearbook．Oscar K．Buros，ed． Highland Park，New Jersey：The Cryphon Press．

Panos，Robert J．and Alexander W．Astin．
1968 ＂Attrition Among College Students．＂American Educational Research Journal，Vol．V，（January），52－72．

Pervin，Lawrence，et al．
1966 The College Dropout and the Utilization of Talent．Princeton： University Press．

Plant，Walter R．
1965 ＂Longitudinal Changes in Intolerance and Authoritarianism for Subjects Differing in Amount of College Education Over Four Years．＂Genetic Psychology Monographs，Vol．72，248－285．

Rose，Harriet A．
1965 ＂Prediction and Prevention of Freshmen Attrition。＂Journal of Counseling Psychology，Vo1．XII，（Winter），399－403．

Rose，Harriet A．and Charles F．Elton．
1966 ＂Another Look at the College Dropout．＂Journal of Counseling Psychology，Vol．XIII，（Summer），242－245．

Sanford，Nevitt。
1962 ＂Developmental Status of the Entering Freshmen．＂In The American College。 Nevitt Sanford，ed．New York：John Wiley and Sons，Inc．，（pp．253－282）．

Schreiber，Daniel S．
1964 Guidance and the School Dropout．Washington，D．C．：National Education Association．

Service，Jolayne．
1972 A User＇s Guide to the Statistical Analysis System。 Raleigh， North Carolina：North Carolina State University．

Summerskill，John．
1962 ＂Dropouts From College．＂In The American College．Nevitt Sanford，ed．New York：John Willey and Sons，（pp．627－657）．

Super，Donald E．
1949 Appraising Vocational Fitness．New York：Harper and Brothers．
1957 The Psychology of Careers．New York：Harper and Brothers．
The Chronicle of Higher Education．
1974 The Chronicle of Higher Education Face Kit．Washington，D．C．： The Chronicle of Higher Education．

The Daily 0＇Collegian．
1974 ＂Student Dropout Rate Up：Withdrawals Not Unusual．＂Sti11－ water：Oklahoma State University，Vol．80，No．40， （October 23）， 1.

Trelease，Sam F。
1958 How to Write Scientific and Technical Papers．Baltimore： Williams and Wilkins Co．

Von Hoffman，Nicholas．
1966 The Multiversity．New York：Holt，Rinehart and Winston．
Willingham，Warren W ．
1974：College Placement and Exemption．New York：College Entrance Examination Board。

APPENDIX A

FRESHMEN STUDENT QUESTIONNAIRE

## Freshmen Student Questionnaire

Please supply the following information by placing a check in the appropriate blank that best represents your answer.

1. Indicate your present marital status:

2. Employed: Yes__ No___ If yes, number of hours per week? $\qquad$
3. In what size community were you reared the greatest number of years?

Rural area (open country, farm)
Town (under 20,000 population)
City (20,000 to 100,000 ) . .
Large city (more than 100,000 )
4. Check the number of schools you attended from kindergarten through tenth grade.

5. Do you plan to complete a degree at Panhandle State University? Yes $\qquad$ No $\qquad$ If yes, check degree planned. Bachelor of Science Bachelor of Arts .
Associate Degree
Two-year certificat $\qquad$
6. Do you plan to transfer to another college sometime in the future because your major field of interest is not offered at Panhandle State University? Yes $\qquad$ No $\qquad$
7. Check the language(s) that is spoken in your home. English Spanish German. Other (please list)
8. Which of the following amounts represent the best estimate of the total annual income of your parents?

| Under $\$ 3,000$ | $\$ 10,000$ to $\$ 14,999$ |
| :--- | :--- |
| $\$ 3,000$ to $\$ 4,999$ | $\$ 15,000$ and over |
| $\$ 5,000$ to $\$ 6,999$ | Do not know - |

$\$ 5,000$ to $\$ 6,999$
Do not know .
$\$ 7,000$ to $\$ 9,999$
9. What is the highest level of education your father and mother have attained? Check both father and mother

FATHER MOTHER

| Eighth grade or less Attended high school, but did not graduate |
| :---: |
|  |  |
|  |
| Attended one year of college |
| Attended two years of college . Completed two year course at college or Junior College Graduate |
|  |  |
|  |
| College graduate . |
| Attended other school (nursing, business, etc.) |
| Completed other school (nursing, business, etc.) . |
| Credit toward Master's degree . . . . . . . . . . . . . . |
| Has Master's degree . . . . . . . . . . . . . . . . . . |
| Credit toward Doctor's degree |
| Has Doctor's degree |

APPENDIX B

OFFICIAL ENROLLMENT CARD


| Name Mrs. Miss |  | Date |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (LAST) | (first) | (midile) | Single. ( ) | Married ( ) |
| Permanent | City |  | ounty | State |  |

From what High School did you graduate? $\qquad$
Date of birth
Place of birth
Is this your first enrollment in any college? Yes ( ) No ( )
Have you atter.ded PSC before? Yes ( ) No ( ) If so, when? $\qquad$
College last attended before coming to Panhandle State
Do you plan to graduate this semester? Yes ( ) No ( ) Are you a Veteran? Yes () No ()
Race: American Indian ( ) White ( ) Oriental ( ) Negro ( ) Spanish ( ) Other ( )
Name of Local Newspaper ___ Town
Name of Local Radio Station_ Town
Viewing TV Station
List all high school honors, clubs, organizations, or teams of which you were a member.
List all high school honors, clubs, organizations, or teams of which you were a member.

List all college honors, clubs, organizations, or teams of which you were or are a member. $\qquad$

Kimroh nucieman Are you a member? Yes ( ) No ( ) -

Address of parent

I cortily thet :none statements are true and correct to the best of my knowledge.
Socialspority No $\qquad$ Signature $\qquad$


# VITA <br> Merlene Hope Lyman <br> Candidate for the Degree of <br> Doctor of Education 

## Thesis: PERSONALITY CHARACTERISTICS AND BACKGROUND INFORMATION WHICH DIFFERENTIATE FRESHMEN COLLEGE STUDENTS AS PERSISTERS OR DROPOUTS

Major Field: Home Economics Education
Biographical:
Personal Data: Born in Barnsdall, Oklahoma, May 18, 1939, the daughter of Charles Merle and Myrtle L. Hope.

Education: Attended grade school in Barnsdall, Oklahoma; graduated from Barnsdall High School in 1957; received the Bachelor of Science degree in Home Economics from Oklahoma State University, with a major in Housing and Interior Design, May, 1961; received the Master of Science degree, with a major in Housing and Interior Design, July, 1966; completed requirements for a Doctor of Education degree, with a major in Home Economics Education, July, 1975.

Professional Experience: Worked as Home Economics Agent for Edwards County, Kinsley, Kansas, representing the Kansas Cooperative Extension Service, 1961-62; served as Extension Home Econo-mist--4-H program for Texas County, Guymon, Oklahoma, representing the Oklahoma Cooperative Extension Service, 1966-67; Home Economics Instructor for Panhandle State University, Goodwell, Oklahoma, 1967-70; Assistant Professor of Home Economics at Panhandle State University, Goodwell, Oklahoma, 1971-75; Head of Home Economics, Panhandle State University, Goodwell, Oklahoma, 1972 to present; Associate Professor of Home Economics at Panhandle State University, Goodwell, Oklahoma, 1975.

Professional Organizations: American Home Economics Association, Oklahoma Home Economics Association, Association of College Professors of Clothing and Textiles, Omicron Nu, Phi Upsilon Omicron, American Association of University Women, and Delta Kappa Gamma.


[^0]:    *Significant at the . 05 level

[^1]:    Masculinity-Femininity (Tables LXVIII and LXIX). A significant difference was found for the males and females in relation to the Masculinity-Femininity Scale score at the . 001 level.

[^2]:    *Significant at the . 03 level

