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The Ohio State University, Ph.D., 1976
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A STUDY OF THE EFFECT OF EDUCATIONAL LEVEL, AGE, AND SEX ON THE VALUES AND SELF CONCEPTS OF ADULT STUDENTS AND ALUMNI OF AN ADULT BACCALAUREATE DEGREE PROGRAM

DISSEMINATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Mari Jeanne Egan, B.L.S., M.Ed.

* * * * *

The Ohio State University

1976

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ACKNOWLEDGEMENTS

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VITA

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1973-1974  . . .  Graduate Teaching Associate, The Ohio State University, Columbus, Ohio


1974-1976  . . .  Research Associate, Ohio Department of Rehabilitation & Correction, Columbus, Ohio

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CHAPTER ONE

INTRODUCTION

The purpose of this study is to investigate the effects of educational level, age, and sex on the values and self concepts of mature adult students and alumni of an external baccalaureate degree program.

Importance of the Problem

Today approximately 7 million people aged 25 or over and 9.5 million people between 18 and 24 years of age are enrolled either full time or part time in institutions of higher education in the United States. The number of traditional aged students exceeds that of adult students at the present time; however, if current trends continue, by 1990 the total number of people enrolled in colleges and universities will have almost doubled and there will be three times as many adults as 18 to 24 year olds in the higher education population (Chickering, 1974).

Nearly all of the vast body of research concerning the impact of college has used traditional aged students as subjects. Furthermore, most of the research on the adult personality has utilized either college students or people
who have sought counseling or psychotherapy as subjects. These findings cannot be generalized to mature adult college students since it cannot be assumed that the impact of college on adults and adolescents is equivalent; nor can it be assumed that the adolescent college student or the psychiatric patient is typical of the mature adult population in our society. The need to reorient our colleges and universities to adult students becomes more compelling each year. The lack of research on the personality characteristics of adults and, specifically, adult college students is a serious handicap to evaluation and improvement of existing adult degree programs and the development of more advanced programs in the future.

The History of Special Degree Programs for Adults

Prior to 1945, pursuit of a college degree generally was considered to be an exclusive activity for those between 18 and 24 years of age. Little concern was directed toward the special needs of adult college students until a new zeitgeist was ushered in by the large number of veterans who enrolled in college after World War II (Hall, 1975). In response to the swelled population of adult college students, educators began to direct their attention to the special needs of adults, and in 1954 the first special degree program for adults was launched at Brooklyn College (Troutt, 1971).
Between 1954 and 1976 over 120 adult degree programs were developed and implemented at institutions of higher learning such as the following: Syracuse University, the University of Oklahoma, Queens College, Goddard College, New York University, the University of Northern Colorado, the University of South Florida, Roosevelt University, Empire State College, Brigham Young University, Johns Hopkins University, San Francisco Theological Seminary, the State University of New York at Brockport, Central Michigan University, and Boston University. While there are a myriad of differences among these existing adult degree programs, many common elements are shared in that they all depart from traditional degree programs in objectives, content, and methodology (Troutt, 1971).

The various adult degree programs have been differentiated by A. A. Liveright (1964), who categorized them according to four variables: (a) the amount of credit which is required to be earned through regular on-campus classes; (b) the total residence requirements; (c) the degree to which special methods and media are applied; and (d) the extent to which the traditional credit-hour system is supplanted by other methods of measuring and reporting progress. The flexibility of degree programs is determined by the preceding four variables, which can be applied to break down
the individual degree program into six categories (Troutt, 1971):

1. Degree programs which require a set number of credit hours to be earned through attendance at regular classes. The vast majority of undergraduate degree programs in the United States fall within this category.

2. Liberal education programs designed for adults with special objectives and content (part-time and evening classes), but with the usual number of credit hours required in classroom attendance.

3. Degree programs with flexibility regarding when, where and how the appointed program may be completed and the required number of credit hours acquired. Educational TV programs, evening college and extension programs, cooperative work-study programs, honors programs, and correspondence study are included in this category.

4. Programs which are based on the accumulation of a definite number of credit hours but which also make specific provisions for allowing credit for experience (by proficiency examinations and through such off-campus programs as independent study and educational media).
5. Programs in which the objectives, curriculum content, and methodology have been altered to meet the needs and interests of mature adults.

6. External degree programs in which the degree is granted entirely on the basis of examinations.

According to Roy Troutt (1971) three distinct categories emerge among special degree programs. The first are those in which the degree, the requirements, and the credit hours are the same as in traditional programs although many methods are allowed for completing degree requirements. Next are programs in which the goals and content have been altered to accommodate adult needs and interests but the methodology and credit-hour requirements are identical to the regular baccalaureate degree. Totally innovative degree programs are included in the third group. These programs depart from traditional programs in all major areas: objectives, methodology, and curriculum.

Taking into consideration only the above-mentioned categories and variables, the difficulties of evaluating and comparing adult degree programs are formidable. However, the situation is further compounded when one also includes such critical variables as methods of financial support, staffing patterns and faculty utilization, clientele, operating costs and costs to students, and organizational characteristics.

The preceding brief description of categories of adult degree programs and the multitude of variables which can be
interchanged to design any particular program has been presented to provide a basic understanding of the framework of adult degree programs. But equally important, knowledge of the diversity of these programs should provide an effective warning against generalizing the findings of this study of students and alumni of one adult degree program to those of other adult degree programs.

The Adult Degree Program of the University of Oklahoma

This section is devoted to a detailed explanation of the functional aspects of the Bachelor of Liberal Studies program of the University of Oklahoma and a description of its student body. All of the subjects in this study are students or alumni of the Bachelor of Liberal Studies (BLS) program, and the findings of this investigation should be viewed in relation to the characteristics of this particular adult degree program and its students.

The BLS program is one of the oldest and most successful adult degree programs in the United States. Seventy-five students were enrolled when the program was initiated in 1961. Enrollment has increased substantially since the birth of the BLS degree fifteen years ago, and in April, 1976, the Dean (Davis, 1976) reported that 869 students were enrolled.
Functional Aspects of the BLS Program

The BLS degree is designed to provide the adult with a liberal education. Burkett and Ruggiers (1965) state that the curriculum is planned to provide the adult student with:

1. Knowledge of the natural sciences, social sciences, and humanities in sufficient depth and breadth to enable him to understand the relation between the broad areas of knowledge, to understand the investigative methods used within each area, and to read, interpret, and evaluate the works of scholars within each field.

2. Understanding of self.

3. Understanding of the behavior of individuals and groups and an understanding of his own and of other contemporary cultures.

4. A historical view of man's development: social, intellectual, scientific, artistic, and religious; and the probable direction and effect of political, economic, and technological change.

5. Understanding and appreciation of some of the great literary, scientific, and artistic works of man.

"Man in the Twentieth Century" is the theme about which the curriculum of the BLS degree is developed. This approach regards modern man as confronted with numerous major problems in a complex society. The solution of these central problems is studied through the central learnings of the liberal arts curriculum.

The underlying principle in the development of the BLS program is that the function of liberal education is the integration of knowledge rather than its fragmentation. Accordingly, the BLS curriculum contains three broad areas...
of study—Humanities, Social Sciences, and Natural Sciences. The Social Sciences area includes the study of anthropology, sociology, psychology, political science, economics, history, and human geography. The Humanities area includes the disciplines of philosophy, cultural history, literature, and the fine arts. The Natural Sciences area contains chemistry, physics, astronomy, biology, botany, zoology, geology, and physical geography. The Inter-Area, which is the final area of study in the program, places emphasis on the inter-relationship of all knowledge through integration of the first three areas of study.

The BLS Faculty Committee has selected approximately 130 basic books for the program which provide partial definition of the scope of the curriculum. However, student study is not confined to these books since supplementary books and materials are recommended by advisers in order to meet the special learning needs and interests of individual students.

The faculty of the College of Liberal Studies is composed of members of the general faculty of the University of Oklahoma who are appointed by the Dean of the College upon the recommendation of the Executive Committee. The College of Liberal Studies has over 100 faculty members. Approximately 62% are professors (of which 18% are distinguished professors), 30% are associate professors, and 8% are assistant professors (Davis, 1976).
There are three basic types of BLS programs. The first is the Basic BLS Program, which has been in existence since the BLS degree program was developed in 1961. The steps required for completion of the BLS degree under this basic program are explained in Table 1, following this page. An illustration of these steps also is provided in Figure 1, which follows Table 1.

The second type of BLS program, the BLS Specialty Option Program, was introduced in 1973 (Grove, 1975). This option is basically the same as the Basic BLS Program. However, it offers specialization in education studies, management studies, paralegal studies, or criminal justice studies. It should be noted that these specialized studies in occupational fields are not intended to meet pre-employment needs of job-seekers, but are directed toward the needs of practitioners who seek to learn more about their field and at the same time earn a baccalaureate degree. In addition to the foundation studies of the basic BLS program, several units of study are included which are directed toward specific topics or problems in the individual's area of specialization. Each unit consists of a series of required readings, a study guide, a supplemental reading list, and a project assignment. The unit projects relate to the student's job whenever appropriate. The steps required for completion of the BLS Specialty Option Degree Program are illustrated in Figure 2, which is on page 13.
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<tr>
<td>1.</td>
<td><strong>Admission-Placement-Advisement.</strong> The student completes application for admission, is administered placement tests, and receives advisement for the program. The student then selects his/her initial area of study.</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Area Independent Study.</strong> For each of the three areas—Humanities, Natural Sciences, and Social Sciences—the student completes a program of independent study. The specific curriculum of each is planned and directed by his/her faculty adviser, and the student must pass the area comprehensive examination after completion of each of these three areas of independent study.</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Area Residential Seminar.</strong> Each area seminar is directed by an interdisciplinary team of two professors. A major theme or problem of particular relevance to the area is explored, and students meet approximately six hours a day, five days a week for the duration of each of the three-week area residential seminars. Eligibility of a student to attend a seminar is established through completion of the corresponding independent study and comprehensive examination. A student also can become eligible through completion of a substantial portion of his independent study, providing his adviser approves his seminar attendance.</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Inter-Area Independent Study.</strong> Independent study in this area is comprised of material which encompasses the prior three areas of study. The student is expected to demonstrate his ability to integrate and interrelate knowledge of the first three areas of the program by studying and critiquing the required interdisciplinary readings. The student's ability to integrate these areas of study then is evaluated by the Inter-Area comprehensive examination.</td>
</tr>
<tr>
<td>5.</td>
<td><strong>The Study in Depth.</strong> Normally after completion of three areas of study, the student begins preparation of his/her study in depth. He/she works closely with an adviser in completion of this requirement, which may consist of a scholarly paper or a creative project. The student must explain the relevancy of his/her study to Liberal Studies and demonstrate an acceptable level of proficiency in liberal inquiry.</td>
</tr>
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6. **Inter-Area Residential Seminar.** This seminar is directed by an interdisciplinary team of three professors, who develop the seminar around a "central problem" or "great theme" which involves all three areas of study. Students meet approximately six hours a day, five days a week for the duration of this intensive four-week seminar. Eligibility is established through completion of all required readings and critiques.

7. **Graduation.**
FIGURE 1

THE STEPS REQUIRED FOR COMPLETION
OF THE BASIC "BLS" DEGREE PROGRAM
(UNIVERSITY OF OKLAHOMA, 1976, p. 12)
FIGURE 2

THE STEPS REQUIRED FOR COMPLETION
OF THE "BLS" SPECIALTY OPTION PROGRAM
(UNIVERSITY OF OKLAHOMA, 1976, p. 17)
The BLS/Junior College Option Degree Program also was introduced in 1973. This option was designed for the student who has completed a minimum of 60 semester hours of college work prior to enrollment in the College of Liberal Studies. The methodology and curriculum of the Junior College Option are the same as in the Basic BLS Program. However, in this program, the student's program of study is based upon his/her academic achievement in his/her previous college work.

After enrollment, the student in the BLS/Junior College Option begins his/her program with a weekend Introductory Seminar which orients him/her to the goals, purposes, methods, and procedures of his/her curriculum. Next is the Comprehensive Area, in which is included independent study in the Humanities, Natural Sciences, and Social Sciences, comprehensive examinations in these areas, and a three-week Comprehensive Area Seminar. Following the Comprehensive Area, students enroll in the Inter-Area and from this point follow the same program of study as those in the Basic BLS Program until graduation. The average Junior College Option student is able to complete this program within approximately two years. The steps required for completion of the BLS/Junior College Option Degree Program are illustrated in Figure 3, following this page.
PREVIOUS JUNIOR COLLEGE PROGRAM

ADMISSION

INTRODUCTORY SEMINAR
TWO-DAY WEEKEND

COMPREHENSIVE AREA GUIDED INDEPENDENT STUDY

HUMANITIES
STUDY

NATURAL SCIENCES
EXAM

SOCIAL SCIENCES
STUDY

EXAM

COMPREHENSIVE AREA SEMINAR

HUMANITIES

NATURAL SCIENCES

SOCIAL SCIENCES

INTER-AREA INDEPENDENT STUDY

STUDY IN DEPTH

INTER-AREA SEMINAR

BLS DEGREE

FIGURE 3

STEPS REQUIRED FOR COMPLETION
OF THE "BLS"/JUNIOR COLLEGE OPTION
(UNIVERSITY OF OKLAHOMA, 1976, p. 22)
Characteristics of BLS Students

The BLS program has attracted people from all 50 states and several foreign countries, and nearly 600 students have graduated from the program since its inception. The majority of BLS students are between the ages of 25 and 55. Over 100 occupational titles are represented by alumni, which include civil service employees, management personnel from business and industry, and military personnel.

Students are permitted to progress at their own pace by the BLS program, and the time required for completion is determined by each person's ability, initiative, desire, and time available for study. The first 249 graduates completed the total program in an average of 47.6 months (Troutt, 1971). However, some completed the program in less than two years, while others required seven years for completion. The dropout rate (39%) of BLS students compares favorably with the average dropout rate of students in colleges and universities throughout the nation, which is 47% (Carnegie Commission on Higher Education, 1971). Taking into consideration the self-discipline, high level of motivation, and self-direction demanded by the program, the dropout rate is surprisingly low. Furthermore, it is notable that nearly 91% of the students who drop out have not completed their first area of study (Troutt, 1971).

The academic excellence of the BLS program can be attested by the high-quality performance of its students on
the Undergraduate Record Examination, which is completed by each BLS student when he/she attends the Inter-Area Seminar. Table 2 contains a comparison of the means and ranges of URE scores of the national standardization sample and BLS students (Davis, 1976).

**TABLE 2**

**COMPARISON OF NATIONAL AND "BLS" SCORES ON THE UNDERGRADUATE RECORD EXAMINATION**

<table>
<thead>
<tr>
<th>Group</th>
<th>Humanities</th>
<th>Natural Sciences</th>
<th>Social Sciences</th>
<th>Total</th>
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<tr>
<td>Nat'l. means, all students</td>
<td>470</td>
<td>480</td>
<td>446</td>
<td>1396</td>
</tr>
<tr>
<td>Nat'l. ranges, all students</td>
<td>220-910</td>
<td>260-910</td>
<td>260-910</td>
<td></td>
</tr>
<tr>
<td>Nat'l. means, by majors in area</td>
<td>525</td>
<td>546</td>
<td>558</td>
<td>1617</td>
</tr>
<tr>
<td>BLS means</td>
<td>532</td>
<td>538</td>
<td>547</td>
<td>1617</td>
</tr>
<tr>
<td>BLS ranges</td>
<td>280-820</td>
<td>310-806</td>
<td>250-870</td>
<td>860-2360</td>
</tr>
</tbody>
</table>

Another index of the quality level of the BLS program is the academic achievements of BLS graduates in graduate programs of institutions of higher learning throughout the country. The College of Liberal Studies conducted a survey of BLS graduates early in 1976 and mailed questionnaires to 460 graduates of the program. Table 3 contains a summary of the data regarding graduate study which was returned by the 329 alumni who responded (Davis, 1976).
TABLE 3
GRADUATE STUDY UNDERTAKEN BY "BLS" GRADUATES

<table>
<thead>
<tr>
<th>Advanced Degrees Completed</th>
<th>Advanced Degrees in Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's</td>
<td>Master's</td>
</tr>
<tr>
<td>70</td>
<td>71</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Ed.D.</td>
<td>Law</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>J.D.</td>
<td>Medicine</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The areas of graduate study of alumni include: adult education, public administration, industrial management, social work, humanities, library sciences, human relations, economics, elementary education, management, personnel counseling, marine affairs, journalism, political science, American history, business administration; business law, psychology, guidance and counseling, liberal studies, sociology, management engineering, creative writing, deaf education, special education, computer science, Asian studies, metalsmithing, and English.

Some of the universities where BLS alumni have enrolled in graduate programs are: University of Rochester, University of Oklahoma, Central Michigan University, Syracuse University, Southern Illinois University, Wright State University, University of Rhode Island, Rutgers University, University of Southern California, University of Michigan, University of Texas at Dallas, Oklahoma State University, George Washington University, University of
Indiana, Michigan State University, The Ohio State University, University of Washington, and University of Pittsburgh.

Summary

After World War II, for the first time in this nation's history, a substantial number of mature adults enrolled in colleges and universities. The adult college population has continued to increase since 1945, and over 120 institutions of higher education have developed and implemented adult degree programs to meet the unique needs of mature adult students. This chapter has discussed the history of adult degree programs and described the Bachelor of Liberal Studies (BLS) Degree program of the University of Oklahoma, which is one of the oldest and most successful of adult degree programs.

The purpose of this study is to investigate the effect of educational status, age, and sex on the values and self concepts of students and alumni of the BLS program. An understanding of adult degree programs in general as well as an understanding of the specific educational program of the Bachelor of Liberal Studies Degree is essential to interpretation of the findings.
CHAPTER TWO

REVIEW OF THE LITERATURE

As the number of adult degree programs and adult college students has accelerated over the past 25 years, there has been a corresponding increase in publications about adult higher education. Many (Vermilye, 1974; Hesburgh, Miller, and Wharton, 1973; Cross, 1974; McClusky, 1974; Long, 1974) have been devoted to discussions of the "new learning society." Another major segment of the literature has been directed toward general descriptions of adult degree programs or to descriptions of functional aspects of specific programs (Burkett and Ruggiers, 1965; Troutt, 1971; Adelman, 1973; Houle, 1973) or to descriptions of problems and accomplishments (Gould and Cross, 1972; Cross, Valley and Associates, 1974). A recent publication by Medsker, Edelstein, Kreplin, Ruyle, and Shea (1975) provides a combination of comprehensive program descriptions and comparisons, a discussion of current problems, and a review of the potential of adult degree programs.

The aspects of adult higher education which appear to be most neglected in the burgeoning body of literature is research on the personality characteristics of adult college students and on the affective impact of college on
adults. Moreover, a comprehensive review of the literature has revealed only two studies which report on the self concepts of adult college students and two research investigations which are addressed to the values of adult college students, but none which concern changes in values of self concepts of adult learners over their college years.

The Importance of Values and Self Concept

An understanding of the values and self concepts of adult college students and the effect which their higher education has on these affective processes is important for many reasons. An individual's existence is given direction by his values. Horrocks and Jackson (1972) theorize that values are relative rather than absolute and are constantly modified, elaborated, or refined as a result of (a) past experiences, (b) cognitive restructuring of information and actions, and (c) environmental influences. The knowledge acquired over the course of a college education is intended to have considerable impact on the refinement, modification, or elaboration of an individual's values. However, the extent of this impact is dependent on the original values structure of the student and on the degree to which he/she has an open mind and incorporates new knowledge into his/her cognitive structure. An individual's environment--point (c) listed above--is sometimes altered as a result of earning a college degree through a job promotion or, perhaps, a
change in occupation. The college experience itself is expected to affect (a), described on the preceding page, which also could create a change in values.

The intimate relationship of values and self concept is explained succinctly by Horrocks and Jackson (1972) in the following sentence:

The value system of each individual sets the criteria for self-evaluation and creates the style of behaviors manifested in the social interchange as satisfying self-needs [p. 105].

An individual's self concept also is relative since it is based on a self-evaluation in terms of successful fulfillment of his/her values. The self concept of an individual whose reference group is comprised of criminals is based on his/her own success in committing crimes, just as the self concept of a teacher is based on success in teaching students.

A change in values can upset the equilibrium between values and self concept in either a positive or a negative direction. For example, if the college experience alters an individual's values and he/she finds that he/she is unable to live up to these new standards, a more negative self concept will result. On the other hand, if the college experience provides insight and knowledge which enables an individual to fulfill commitments to his professed value system more successfully, a more positive self concept will
emerge. A better understanding of the effects of college on the self concept of adult students is seminal because of the importance of a positive self concept to mental health and because knowledge of self concept contributes substantially to the understanding and prediction of human behavior (Fitts, 1972). Furthermore, in our production-oriented society an awareness of the effects of a college education on adult self concept is crucial because of the close relationship between self concept and optimal functioning, as described by Fitts (1972): "Other things being equal, the more optimal the self concept the more effectively the individual will function [p. 1]."

Clearly, knowledge of academic achievement is necessary but not sufficient to evaluate the effect of college on each graduate's life. Knowledge tells us only what the individual knows--It is his/her values which determine how that knowledge will be applied and his/her self concept which influences the effectiveness of that application.

Because of the limited nature of research which bears directly on the topic of this investigation, several peripheral topics which have a close relationship to the current study have been selected for brief review. In addition to serving as reference points, interaction between any of the following which could provide valuable insight in interpretation of results may be perceived in the findings:

1. Changes in values of traditional aged college students over their college years.
2. Developmental patterns of values in the adult years.

3. Sex differences in values and values changes.

4. Changes in self concepts of traditional aged college students over their college years.

5) Developmental patterns of self concepts in the adult years.

6) Sex differences in self concepts of adults.

7) The relationship of self concept and the level of education in the adult years.

Changes in Values of Traditional Aged College Students Over Their College Years

After a review of the existing literature and his own research findings, Jacob (1957) concluded that there is no consistent or significant values changes which occur during the college years. He theorized that the most significant overall effect of higher education on student values is to create a general acceptance of a body of standards and attitudes which are considered characteristic of college-bred people in the United States. He noted that this was indicated by a tendency toward greater homogeneity and greater consistency of values among seniors than among freshmen.

Some researchers (Schubert, 1967; Kirchner and Hogan, 1972) agree with Jacob's conclusions that college has little impact on student values, but others (Feldman and Newcomb, 1973; Plant and Minium, 1967; Arsenian, 1943; Huntley, 1965)
have decided the opposite is true and report significant values changes in at least two values scales of the Study of Values (Allport, Vernon, and Lindzey, 1960). The most consistently reported change between the freshman and senior years in the above-mentioned longitudinal studies is an increase in the Aesthetic value and a decrease in the Religious value. The Economic value was often lower in the senior year, but this result usually was statistically insignificant. The Social value frequently was higher in the senior year than the freshman year, but once again the results usually were not statistically significant. Differences for the Theoretical and Political scales are inconsistent across the studies reviewed and seldom reach a level of statistical significance.

**Developmental Patterns of Values in the Adult Years**

While there have been no publications reporting research on changes in values in adults over their college years, the literature contains a few reports of investigations (Hoge and Bender, 1974; Bender, 1958; Kelly, 1955) which have followed up people who completed the Study of Values in their college years or their early twenties and administered this instrument to them again in middle adulthood. These studies showed values to be fairly stable between the twenties and middle age.
The most significant changes reported in all of the above-mentioned studies is an increase for the Religious value. The second most significant change is a decrease for the Aesthetic value.

When Kelly followed up a group of adults in their late thirties and early forties who had taken the Study of Values eighteen years earlier, he indicated another significant change in addition to the two (Religious and Aesthetic) which were most significant. He found that the Theoretical scale of the men had decreased during the eighteen-year interim between administration of the Study of Values. There was no corresponding decrease of the Theoretical scale of the women in the study, nor were there significant changes in the Economic, Social, or Political scales for either sex.

**Sex Differences in Values and Values Changes**

The Manual for the Study of Values (Allport, Vernon, and Lindzey, 1970) states: "For most purposes, it is wiser to compare a given score with norms for the subject's own sex [p. 41]." The reason for this suggestion is apparent after an examination of Table 4, which illustrates the sex differences between the normative scores (Allport, Vernon and Lindzey, 1970) of college aged males (N=5,894) and females (N=2,475).
TABLE 4

COLLEGIATE NORMS FOR MALES
AND FEMALES FOR THE STUDY OF VALUES

<table>
<thead>
<tr>
<th>Scale</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>43.09</td>
<td>36.50</td>
</tr>
<tr>
<td>Economic</td>
<td>42.05</td>
<td>36.85</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>36.72</td>
<td>43.86</td>
</tr>
<tr>
<td>Social</td>
<td>37.05</td>
<td>41.62</td>
</tr>
<tr>
<td>Political</td>
<td>43.22</td>
<td>38.00</td>
</tr>
<tr>
<td>Religious</td>
<td>37.88</td>
<td>43.13</td>
</tr>
</tbody>
</table>

As noted in the table above, the mean scores of males on the Theoretical, Economic, and Political scales are typically higher than those of females. On the other hand, females usually score higher than males on the Aesthetic, Social, and Religious scales.

In 1935-1938 Kelly administered the Study of Values to 215 males and 231 females who were in their twenties. When he followed up this group again in 1953-1954, he reported (1955) the following changes had taken place in their values over the 18-20 year period:

1. Both males and females scored higher on the Religious scale.
2. Both males and females scored lower on the Aesthetic scale.
3. The Theoretical scale of the males decreased.
4. There were no significant changes on the Economic, Social, or Political scales for either sex.

5. There was no significant change on the Theoretical scale for the females.

When Page (1971) administered the Study of Values to 184 mature college women aged 32 or older, she found that their scores were significantly higher than the female collegiate norms for the Theoretical and Religious scales and significantly lower for the Economic, Aesthetic, Social, and Political scales.

Withycombe-Brocato (1969) also found that the scores of her sample of mature college women were different from the collegiate norms listed in the manual. The mean scores of this sample of 448 mature (aged 25 or over) women graduate students were higher than the collegiate norms for females on the Aesthetic, Political and Theoretical scales and lower on the Economic, Religious, and Social scales.

**Changes in Self Concepts of Traditional Aged College Students Over Their College Years**

The writer has been able to locate two studies in the literature which attempt to measure the effects of college on the self concepts of traditional aged college students. When Smith (1975) utilized the Tennessee Self Concept Scale (Fitts, 1964) to measure the amount of change in self concepts during the first term of attendance at a rural
Appalachian community college, he reported small, but insignificant changes in the positive direction in the self concepts of his sample of 267 students.

Fairchild (1964) used the Bill's Index of Adjustment and Values as the principal measuring instrument to investigate the stability of the self concept of junior college students between the beginning of their first year in college and the end of their second year. He found that small but significant changes took place in the self concepts and that these changes were toward the positive direction. He noted that students with high self concept scores in the original test maintained those high scores and students who had low scores in the original test tended to have increased self concept scores which were increased beyond the amount expected as a result of regression.

Developmental Patterns of Self Concepts in the Adult Years

Ability to form and differentiate a self concept increases with age (Loevinger, 1966). However, it is commonly believed (Thompson, 1972; Horrocks and Jackson, 1972; Sawrey and Telford, 1975) that the self concept is formed in young adulthood and remains relatively stable thereafter.

Recently there has been some evidence that the view of self concept stability throughout adulthood is incorrect. Grant (1966, 1969) administered the Tennessee Self Concept Scale to 500 volunteer subjects who were drawn from church
groups. This sample was composed of 250 men and 250 women who ranged from 20 to 69 years of age. The most general finding of this study was that people tended to report a more positive self concept as age increased. Older subjects also scored higher on the scales of the TSCS which serve as measures of defensiveness, though, which suggests that part of the more positive self concept of the older people is a function of denial rather than an actual increase in self-esteem. The findings of Grant's study imply that self concept development is linear, with self conceptions at the most negative point in youth, followed by a gradual rise which peaks during senescence.

Bloom's study (1961) resulted in findings which contradict both the commonly held theory of stability of self concept throughout adulthood and Grant's conclusions that self concept becomes more and more positive as age increases. When Bloom measured the self concepts of 83 male surgical patients at a Veterans Administration hospital in New York, he found that self acceptance showed a steady increase from age 20 to age 50-59, when it reached a peak. Thereafter, it began a steady decline which continued throughout senescence. He concluded that there is a curvilinear relationship between age and self acceptance, which is supportive of the view of Schaie (1962), Allport (1961), and Cumming and Henry (1961) which presents the theory that life takes place within a framework of developmental stages and is
characterized by expansion in early adulthood and withdrawal or disengagement after middle age is reached.

Sex Differences in Self Concepts of Adults

In her review of the psychological literature on sex differences a few years ago, Bardwick (1971) made the following conclusion:

Women . . . tend to esteem themselves only insofar as they are esteemed by those they love and respect. Unlike the man, who is considered successful when he has achieved within his occupation, the woman who achieves is generally not considered successful unless she also has a husband and children [p. 158]."

The preceding statement implies that less emphasis is placed on internal standards of success for women than for men and greater significance is given to external or interpersonal sources of esteem for women than for men.

When Beauvoir (1953) described the "problem of women from an existential framework, she theorized the role of woman to be that of an object. She analyzed that of a man to be a subject, one who is active, controlling, manipulating, and generally assuming an active stance toward the world of objects--including, of course, women. Beauvoir likened women to objects in that they are looked at, controlled, manipulated, and generally passive. Although this view is partially a stereotype, when the sources of self-esteem for women and for men are examined, it still seems that women far more than men tend to be prized for how they appear to
others (i.e., objects) and men are prized far more than
women for what they accomplish (i.e., subjects).

Kimmel (1974) supports the view expressed by
Bardwick and Beauvoir in his conclusion that women tend to
have lower levels of self-esteem and self-confidence than
men. He also adds a third reason for this situation: Men
are more highly valued in our society.

A number of research investigations in recent years
support the view that women have more negative self concepts
than men. Pheterson, Kiesler, and Goldberg (1971) found
that 120 women rated a series of abstract paintings higher
if they were told that the artist's name was male (e.g.,
David Smith) than when told it was female (e.g., Jane Smith).
This finding implies that women project their own negative
self concepts to other women.

MacBrayer (1960) reported that females perceive males
significantly more favorably than males perceive females,
which indicates that males, as well as females, have a more
negative concept of the female sex.

Grant's findings (1966, 1969) in her study of 250 men
and 250 women from age twenty to the late sixties also sup-
port the view that men view themselves more positively than
do women. She found that across all age levels men main-
tained a more positive self concept than did women and were
more secure than women. Men also were more defensive than
women so the actual differences in self concept were not
clear, since it is not possible to discern how much of the male's more positive self concept can be attributed to denial.

The feminist movement has created more equality for women in obtaining jobs of higher status and earnings and has been instrumental in removing much of the stigma which was formerly associated with the working wife and mother as well as the single career woman. It could be argued that women today have a much more positive image of themselves and of other women than was the case even a decade ago. One of the major objectives of the feminist movement has been to create more favorable perceptions of women toward their role as a woman and toward themselves as a person. The results of this study may give some insight as to whether women tend to view themselves more favorably in comparison to men than they did a few years ago.

The Relationship of Self Concept and the Level of Education in the Adult Years

Fitts (1972) states that there is no definite answer regarding the relationship between self concept and educational level. However, he believes that there is not a very strong correlation because of the number of people with college, graduate and professional degrees who have poor self concepts. This belief is corroborated by Piety's findings (1958). When he correlated the educational level
of a group of people with self concept, he found a correlation of .09, which suggests little, if any, relationship.

The only study which was located during the literature review which supports a positive correlation between educational level and self concept was conducted by Dimaya (1963). She found in her study of leprosy patients that those with higher educational levels also had higher self-esteem.

Mizer's study (1975) also should be noted as it may have important implications to this study. She analyzed the self concepts of a group of persons aged 50 or older and found that those who were educationally active (as defined by enrollment in one or more courses at Arizona State University) had a better self concept than those who were non- educationally active. If the adult college students in the current study have self concepts which are higher than average, it may suggest that educational involvement has a positive effect on self concept.

**Hypotheses**

In light of the preceding review of the literature, the following hypotheses have been formulated:

1. There are differences in values of adult college students and alumni which are attributable to educational level.
2. There are differences in values of adult college students and alumni which are attributable to age.

3. There are differences in values of adult college students and alumni which are attributable to sex.

4. There are differences in self concepts of adult college students and alumni which are attributable to educational level.

5. There are differences in self concepts of adult college students and alumni which are attributable to age.

6. There are differences in self concepts of adult college students and alumni which are attributable to sex.

The next chapter discusses the methods and procedures by which these hypotheses were tested.
CHAPTER THREE
METHODOLOGY

Subjects

This research investigation was announced and explained to all students and alumni who attended the Bachelor of Liberal Studies (BLS) seminars in May, June, and July, 1976, and participation was requested on a voluntary basis. Of the 55 alumni who attended the two-day BLS Alumni Seminar, 30 (55%) volunteered. A total of 110 BLS students were enrolled in the Social Sciences, Natural Sciences, Humanities, and Inter-Area Seminars, 90 (82%) of whom volunteered to participate in this study. Therefore, the total number of subjects is 120.

Instruments

The Tennessee Self Concept Scale (Fitts, 1964) is the standard instrument selected to measure self concepts, and the Study of Values (Allport, Vernon, and Lindzey, 1960) is the standard instrument which was chosen to assess values. In addition, a questionnaire (Appendix A) was constructed in order to obtain additional personal information about each of the subjects. Each subject also was requested to sign a
consent form (Appendix B) which indicated his/her consent to be a subject in the study and granted the investigator permission to gather additional academic data from his/her student file at the College of Liberal Studies.

**The Tennessee Self Concept Scale (TSCS)**

This is a self-report instrument which was designed for ages twelve and over. The scale consists of 100 self-descriptive statements which the subject uses to portray his/her own picture of himself/herself. The test is self-administering and usually requires 10 to 20 minutes (mean time of 13 minutes) to complete. It is applicable to the entire range of psychological adjustment from healthy self-actualizing people to psychotic patients.

The TSCS has 28 scales relating to self concept, mental health, and level of defensiveness in answering the questions in the scale. Fourteen of these scales were felt to be of significant relevance to warrant analysis for this study. A brief description of these scales is contained in Table 5, which follows this page.

**The Study of Values**

This instrument has been widely used for research since it was designed in 1931 to determine the relative prominence of six basic interests or values: the Theoretical, Economic, Aesthetic, Social, Political, and Religious. These classifications are based directly on the six types of men described
TABLE 5

INTERPRETATION OF THE MEANING OF THE
INDIVIDUAL SCALES OF THE TENNESSEE SELF CONCEPT SCALE

1. The Self Criticism Score (SC). This scale consists of ten items which are mildly derogatory statements which most people admit as being true for them. Denial of most of these statements is an indication that the subject is being defensive and making a deliberate effort to present a favorable picture of himself/herself.

2. Net Conflict Score (NC). This score measures the extent to which an individual's responses to positive items differ from (conflict with) his responses to negative items in the same area of self-perception. Large positive scores indicate that the subject is over-affirming his positive traits. Large negative scores mean that the subject is over-denying his negative attributes in relation to the way he has affirmed his positive traits.

3. Total Conflict Score (TC). The preceding score (Net Conflict) was concerned only with directional trends in conflict. Since some people try to accentuate the positive as well as to eliminate the negative, their positive conflict and their negative conflict could cancel each other out. The TC score reflects a total of negative and positive conflict scores which eliminates this possibility.

4. Total Positive Score (TP). This scale reflects the overall level of self-esteem of the subject and is the most important single score on the TSCS.

5. Row 1 - Identity (R1). This scale contains the individual's description of his basic identity.

6. Row 2 - Self-Satisfaction (R2). This score describes how the subject feels about the self he/she perceives and reflects the general level of self-acceptance.

7. Row 3 - Behavior (R3). The individual's perception of his/her own behavior or the way he/she functions is measured by this scale.
8. **Column A - Physical Self (CA).** This scale analyzes the individual's view of his/her body, his/her state of health, skills, sexuality, and physical appearance.

9. **Column B - Moral-Ethical Self (CB).** This scale describes the individual's feelings about the self from a moral-ethical frame of reference—satisfaction with one's religion or lack of it, moral worth, feelings about being a "good" or "bad" person, etc.

10. **Column C - Personal Self (CC).** The individual's sense of personal worth, his feelings of adequacy as a person, and his evaluation of his personality apart from his body or his relationships to others is tapped by this scale.

11. **Column D - Family Self (CD).** The individual's feelings of adequacy, worth and value as a family member are reflected in this scale.

12. **Column E - Social Self (CE).** This scale evaluates the self as perceived in relation to others, but it refers to others in a more general manner. The self in reference to the person's sense of adequacy and worth in social interaction with other people in general is the main consideration of this score.

13. **Defensive Positive Scale (DP).** This scale is a more subtle measure of defensiveness than the SC score. A high DP score indicates a positive self-description stemming from defensive distortion. A significantly low DP score is reflective of a person who is lacking in the usual defenses for maintaining even a minimal level of self-esteem.

14. **General Maladjustment Scale (GM).** This scale consists of 24 items which differentiate psychiatric patients from non-patients but do not differentiate one patient group from another. While it provides no clues as to the nature of pathology, it serves as a general index of adjustment-maladjustment.
by Spranger (1928), who theorized that personalities of men are best known through a study of their values or evaluative attitudes. Each of the six scales of the Study of Values is descriptive of one of the six types of men discussed by Spranger. This instrument is self-administering and usually requires 20 to 25 minutes to complete. A brief explanation of each of the six scales is contained in Table 6, on the following page.

Administration of the Instruments

The research investigation was announced to all BLS seminar attendees, and those who volunteered to participate were given the following material: Consent To Serve as a Subject in Research (Appendix B); BLS Student and Alumni Questionnaire (Appendix A); Tennessee Self Concept Scale; and the Study of Values.

The first evening of the Alumni Seminar, 21 alumni gathered at the apartment of one of the alumni to participate in the study. The investigator administered all of the test material to these people, who completed it and returned it to the investigator before leaving that evening. Due to time constraints, the remainder of the subjects in this study (99) each were given a packet containing the material for the study and requested to complete and return it to the investigator within two days, since she was scheduled to return to The Ohio State University at that time. Those subjects who did not have time to complete
**TABLE 6**

INTERPRETATION OF THE MEANING
OF THE INDIVIDUAL SCALES OF THE STUDY OF VALUES

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Theoretical: The dominant value of the theoretical person is the discovery of truth. He/she characteristically takes a &quot;cognitive&quot; attitude in achieving this goal. His/her chief objective in life is to order and systematize his/her knowledge.</td>
</tr>
<tr>
<td>2</td>
<td>Economic: The major interest of the economic person is that which is useful and practical. The utilitarian orientation of this type conforms well to the stereotype of the typical American businessman.</td>
</tr>
<tr>
<td>3</td>
<td>Aesthetic: The primary interests of the aesthetic person are form and harmony. Each individual experience is judged from the standpoint of grace, symmetry, or fitness. The aesthetic person finds his/her chief interest in the artistic episodes of life.</td>
</tr>
<tr>
<td>4</td>
<td>Social: This value is characterized by an altruistic or philanthropic love for people. The social person prizes other persons as ends rather than means and is kind, sympathetic, and unselfish in his/her relationships with others.</td>
</tr>
<tr>
<td>5</td>
<td>Political: This value involves a primary interest in power, competition, influence, and renown (in any vocation, rather than only in politics). Leaders in any field typically have a high political value.</td>
</tr>
<tr>
<td>6</td>
<td>Religious: The highest value of the religious person could be called unity. Interests center in the mystical aspects of life, and this type of person is most interested in seeking to comprehend the cosmos as a whole and relating himself/herself to its encompassing totality.</td>
</tr>
</tbody>
</table>
their material within the two-day time limit were instructed to mail it to the investigator's residence upon completion.

**Statistical Procedures**

All data for this study were punched on IBM cards, and the statistical analysis was performed by an IBM 370 computer at The Ohio State University Data Center. The *Statistical Package for the Social Sciences* (Nie et al., 1975) was used for all statistical procedures.

Before testing the six hypotheses of this study, consideration was given to the possibility of existence of differences between the values and self concepts of students enrolled in the Basic BLS Degree Program and the BLS/Junior College Option Degree Program. The 22 BLS/Junior College Option subjects in this study completed their first two years of college in another degree program, and it was hypothesized that this difference in educational background might be responsible for a significant difference in values and self concept between these students and the 98 other subjects who were enrolled in either the Basic BLS Degree Program or the BLS Specialty Option Degree Program. Therefore, the following analyses were completed to test for differences:

1. An analysis of variance using the Duncan procedure was completed to determine if significant differences \( (p < .05) \) exist between the values and self concept scores of third
year BLS/Junior College Option students and third year students in the other BLS programs.

2. An analysis of variance using the Duncan procedure was completed to determine if significant differences \( p < .05 \) exist between the values and self concept scores of fourth year BLS/Junior College Option students and fourth year students in the other BLS programs.

Neither of these two analyses revealed significant differences between the values and self concepts of BLS/Junior College Option students and those in other BLS programs, so a decision was made to combine the students from all BLS programs when performing the analyses to test the six hypotheses of the investigation.

The Duncan procedure in the SPSS package (Nie et al., 1975) was used to perform all analyses of variance, and only those differences which reached the .05 level were considered significant.

Hypothesis One

To test for differences in values due to educational level, the 120 subjects were divided into the following groups: first year students; second year students; third year students; fourth year students; and alumni. Then an analysis of variance was completed for each of the six values scores of the Study of Values to determine cross-sectional differences. The alumni were included in this analysis to
learn whether differences—if any—between first and fourth year students remain constant, increase, or diminish after graduation.

**Hypothesis Two**

To test for differences in values due to age, the subjects were divided into the following age groups: 21 to 30; 31 to 40; 41 to 50; 51 to 60; and 61 to 70. Then an analysis of variance was completed for each of the six values scores of the Study of Values to determine cross-sectional differences.

**Hypothesis Three**

To test for differences in values due to sex, the subjects were divided into two groups: males and females. Then an analysis of variance was completed for each of the six values scores of the Study of Values to determine differences between the two sexes.

**Hypothesis Four**

To test for differences in self concepts due to educational level, the subjects were separated into the following groups: first year students; second year students; third year students; fourth year students; and alumni. Then an analysis of variance was completed for each of the 14 scales of the Tennessee Self Concept Scale which was considered in this investigation in order to identify cross-sectional differences between educational levels.
Hypothesis Five

To test for differences in self concepts due to age, the subjects were divided into the following age groups: 21 to 30; 31 to 40; 41 to 50; 51 to 60; and 61 to 70. Then an analysis of variance was completed for each of the 14 scales of the TSCS which was considered in this investigation in order to identify cross-sectional age differences.

Hypothesis Six

To test for differences in self concepts due to sex, the subjects were divided into two groups: males and females. Then an analysis of variance was completed for each of the 14 scales of the TSCS which was considered in this investigation to determine sex differences.

Demographic Data

A frequency distribution of the demographic data obtained through the BLS Student and Alumni Questionnaire was computed. This information is contained in Appendix C.
CHAPTER FOUR

RESULTS AND CONCLUSIONS

The BLS students and alumni who are the subjects in this study are fairly typical of middle class America, as can be observed through examination of the demographic data contained in Appendix C. The majority are married, Caucasian, employed by a government agency, and had a family income of over $20,000 in 1975.

The average age of the entire group (43.8) and the mean ages of each of the educational levels are listed in item 16 of Appendix C. However, it should be noted that the mean age (51.2) of the alumni is significantly higher than that of any of the groups of first through fourth year students, whose mean ages range between 40.9 and 43.5. This age difference between the alumni group and the other four groups may have contributed to differences which exist between the alumni and the students.
Hypothesis One

There are differences in values of adult college students and alumni which are attributable to educational level.

The results of this study do not support this hypothesis, since none of the scales of the Study of Values revealed significant differences between educational levels of BLS students. As shown in Table 7, following this page, the only significant difference in values occurred between the alumni and the four groups of students, with the alumni scoring significantly lower on the Economic scale. It is likely, though, that this difference is a function of the greater average age of the alumni group or of individual differences.

Conclusions

The findings support Jacob's conclusion (1957) that no significant values changes occur over the college years. He believes that the most significant effect of college is a tendency towards greater homogeneity and greater consistency of values among seniors than freshmen. This belief, however, was not supported by this study since the standard deviations of the values scores of seniors are not consistently or significantly smaller than those of the freshmen BLS students. This may be an indication that the values of adult college students are less amenable to change than those of traditional aged college students as a result of education, but further research is necessary to determine whether this is true.
### TABLE 7

ANALYSIS OF VARIANCE

THE EFFECT OF EDUCATIONAL LEVEL ON VALUES AND SELF CONCEPT

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Hypothsis Two

There are differences in values of adult college students and alumni which are attributable to age.

Analysis of the effect of age on values supported this hypothesis, as shown in Table 8, following this page. Significant differences were found in the Economic, Political, and Religious scales of the Study of Values. The Economic scale is highest for the 31-to-40 age group, dips slightly for those in the 41-to-50 and 51-to-60 age group, and then decreases significantly to its lowest point for those between the ages of 61 and 70.

The Political scale is lowest for those between 21 and 30 and between 61 and 70. Those in the 31-to-40 age group received the highest mean scores for this scale. Thereafter, as age increased, scores for this scale also decreased until a level equally low as the 21-to-30 age group occurred for those between 61 and 70.

The Religious scale is highest for those in the 21-to-30 age group and lowest for those between 31 and 40. For the 41-to-50 and the 51-to-60 age groups, this scale increased to nearly the same level as the 21-to-30 age group. However, it drops significantly once again for the age group between 61 and 70.

The Theoretical and Social scales were both lowest for the 21-to-30 age group and then tended to increase through each of the age groups and peak for those between
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TABLE 8
ANALYSIS OF VARIANCE
THE EFFECT OF AGE ON VALUES AND SELF CONCEPT
61 and 70, although these differences never reached a level of statistical significance. The Aesthetic scale was highest for those in the 61-to-70 age group, followed by the 21-to-30 age group, and the age groups from 31 to 60 received approximately equally low scores for this scale, but these differences were not statistically significant either.

Conclusions

Other researchers (Hoge and Bender, 1974; Kelly, 1955; Bender, 1958) have noted that the most significant change in values in adult years is an increase in Religious value and the second most significant a decrease in Aesthetic value. The results of this study do not support this view, but instead seem to indicate a curvilinear relationship of age and Aesthetic value, with interest at the highest points between 21 and 30 and between 61 and 70. Religious interest is highest for the 21-to-30 age group and lowest for those between 31 and 40. The second lowest mean scores are found in the 61-to-70 age group, which contradicts the findings of the research cited above. However, these findings must be interpreted with great caution since the scores were analyzed cross-sectionally and there are so few subjects in the 21-to-30 age group (N=8) and the 61-to-70 age group (N=4). The differences which have been noted in this study may well be a function of an atypical sample rather than actual age-related differences which exist in general society or in populations of other adult college students.
The twenties are typically a period of adjustment when first commitments are made to career, to marriage, and to other adult responsibilities. Once these adjustments have been made, the stage is set for the thirties, which have been characterized (Gould, 1972) as a time for achievement and becoming one's own person. One of the most interesting findings of this study is that the 31-to-40 age group received the highest mean scores on the Political and Economic scales and the lowest on the Religious scale. These findings are strongly supportive of the strong achievement orientation theorized to be a characteristic of those in their thirties because of the high value placed on power and influence (Political scale) and practical considerations (Economic scale) and the low value placed on the spiritual side of life (Religious scale). The decreases in Political and Economic values after the thirties and corresponding increases in other values could be interpreted in terms of goal-directed behavior (Horrocks, 1969) in that once the goal (achievement through establishment of a career and security and/or success in that career) has been attained by those in their forties through late fifties, it often seems less desirable and other goals assume a greater valence. For people who have been unsuccessful in their careers, rationalization could provide an explanation for the changes which occur after the thirties.
Hypothesis Three

There are differences in values of adult college students and alumni which are attributable to sex.

The findings of this study support this hypothesis. As shown in Table 9, there are significant sex differences on three scales of the Study of Values. Males scored significantly higher than females on the Economic scale and the Political scale. However, women scored significantly higher than men on the Aesthetic scale. There were no significant sex differences on the Theoretical, Social, and Religious scales.

Conclusions

As indicated by Figure 4 and Figure 5, in general the mean scores for the men and women in this study are considerably more similar than those of the traditional aged collegiate population which are reported in the Manual for the Study of Values (1970). When the male scores of this study are compared with the scores of the traditional aged male collegiate population, it can be seen that all of these scores are within 1.5 points of each other. The increased similarity between male and female scores in this study can be attributed completely to a tendency of the female BLS students and alumni to score toward the traditional "masculine" direction rather than vice-versa. These women scored substantially higher (6.6 points) than the traditional-aged female college students on the Theoretical scale and
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<td>NS</td>
</tr>
<tr>
<td>TC</td>
<td>30.1 8.1</td>
<td>29.8 9.6</td>
<td>.043</td>
<td>NS</td>
</tr>
<tr>
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<td>360.0 31.8</td>
<td>6.191</td>
<td>.014</td>
</tr>
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<td>129.3 9.6</td>
<td>5.889</td>
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<tr>
<td>R2</td>
<td>106.7 15.7</td>
<td>113.0 13.4</td>
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</tr>
<tr>
<td>R3</td>
<td>113.1 12.7</td>
<td>117.5 11.9</td>
<td>3.710</td>
<td>.053</td>
</tr>
<tr>
<td>CA</td>
<td>68.5 8.9</td>
<td>69.9 8.4</td>
<td>.710</td>
<td>NS</td>
</tr>
<tr>
<td>CB</td>
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<td>74.9 7.7</td>
<td>5.179</td>
<td>.023</td>
</tr>
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<td>68.2 7.5</td>
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<td>72.1 8.7</td>
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<td>55.1 11.7</td>
<td>57.2 10.3</td>
<td>1.033</td>
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<tr>
<td>GM</td>
<td>96.7 10.2</td>
<td>100.0 9.6</td>
<td>3.239</td>
<td>NS</td>
</tr>
</tbody>
</table>
Males 44.0 42.5 37.9 37.0 41.9 36.6
Females 43.1 36.4 44.8 37.7 38.1 39.5

FIGURE 4
MEAN SCORES ON THE STUDY OF VALUES OF MALE AND FEMALE SUBJECTS OF THE CURRENT INVESTIGATION

Males 43.1 42.1 36.7 37.1 43.2 37.9
Females 36.5 36.9 43.9 41.6 38.0 43.1

FIGURE 5
COLLEGE NORMS FOR THE STUDY OF VALUES FOR TRADITIONAL AGED MALES AND FEMALES (ALLPORT, VERNON, AND LINDZEY, 1970)
substantially lower on the Social scale (4.6 points) and the Religious scale (3.6 points). The scores of the adult college women in this study were similar to those of the traditional aged college women for three scales: Economic, Aesthetic, and Political.

The higher Theoretical mean scores and lower Social mean scores support the findings of Withycombe-Brocato (1969) and Page (1971) in their studies of mature college women. This could indicate either a general increase in the Theoretical scale with a corresponding decrease in the Social scale of women during the adult years, or it could be reflective of a greater tendency of women who place a relatively high value on the Theoretical value and a relatively low priority on the Social value to enroll in college as adults. Another explanation could be a general change in feminine values which has occurred since the norms were established in the Manual for the Study of Values (1970). Further research will be necessary in order to provide an explanation for this situation.

Hypothesis Four

There are differences in self concepts of adult college students and alumni which are attributable to educational level.

The analysis of the effects of educational level on self concept (see Table 7) did not reflect any significant differences. The only significant difference in the fourteen
scales of the Tennessee Self Concept Scale considered in this analysis occurred in the Net Conflict Scale (NC), in which second year students showed significantly more conflict than the other groups. This could be indicative of a greater difficulty in self-definition by students in their second year of college study, but it is more likely that this difference is a function of the small number of subjects in the second year group (N=14).

Conclusions

The findings of this study support those of Harrington (1970) and Piety (1958) and the opinion of Fitts (1972) that there is little correlation between educational level and self-concept in adulthood. While the difference did not reach a level of statistical significance, it is interesting to note that the group of first year students received the highest mean score on the Total Positive Scale (TP), the most important scale of the TSCS. It appears that the high value society professes to place on obtaining a college degree has little—if any—relationship to the self-concept of those in route to achieving this objective. Figure 6, which follows this page, illustrates the average scores of the subjects of this study in relationship to the T-scores and percentile scores given in the Manual for the Tennessee Self Concept Scale (Fitts, 1970). The average of this group on the Total Positive Score is slightly above average, but not enough to be significant. It is significant, however,
### FIGURE 6

**MEAN SCORES OF THE SUBJECTS IN THIS STUDY ON THE TENNESSEE SELF CONCEPT SCALE**
that this group of adult college students and alumni received their highest mean scores on the scales which measure Self Acceptance (R2) and Personal Self (CC), which may be suggestive of increased self-satisfaction due to involvement in higher education. As described in Chapter II, Mizer (1975) found involvement in college to be a significant variable in influencing the self concepts of people in their sixties toward the positive direction. Again, here is an issue which can be resolved only through further research.

Hypothesis Five

There are differences in self concepts of adult college students and alumni which are attributable to age.

The results of this study, as shown in Table 8, do not support this hypothesis, since no significant differences were found to exist between age groups on any of the scales of the TSCS which were analyzed.

Conclusions

Although differences never reached a level of statistical significance, it should be noted that the age group between 61 and 70 years of age received the most negative mean self concept scores on the following scales: Total Positive (TP); Identity (R1); Self Satisfaction (R2); Behavior (R3); Physical Self (CA); and Social Self (CE). While the mean score of this age group was approximately the same as the other age groups on
the Self Criticism (SC) Scale, they received the lowest mean score of any of the groups on the Defensive Positive Scale (DP), which is an indication that this group of people in their sixties was somewhat less defensive than the others in responding to the items of the TSCS. Therefore, it is probable that the oldest age group received, in general, the most negative self concept scores because they were least defensive in answering the questions rather than actually possessing more negative self concepts than any of the other groups. It also must be taken into consideration that the age group from 61 to 70 was comprised of a very small sample (N=4).

Hypothesis Six

There are differences in self concepts of adult college students and alumni which are attributable to sex.

As shown in Table 9 and Figure 7, this hypothesis has been substantiated by the results of this study. Significant differences were found between male and female scores on seven scales of the TSCS: Total Positive Score (TP); Identity (R1); Self Acceptance (R2); Behavior (R3); Moral-Ethical Self (CB); Family Self (CD); and Social Self (CE). In each of these areas, the scores of the women were more positive than those of the men. In the other two scales of the TSCS which measure self concept, Physical Self (CA) and Personal Self (CC), women also
### FIGURE 7

Mean scores of the male and female subjects in this study on the Tennessee Self Concept Scale

---

**Profile Limits**

---

51 female subjects

69 male subjects
scored higher than men, but the differences did not reach a level of statistical significance.

Both the male and female subjects of this study received their lowest mean score on the Physical Self (CA) Scale, which indicates the greatest degree of dissatisfaction with the physical rather than the psychological self.

The mean of the Self Criticism Scale (SC) was equivalent for men and women. Women scored somewhat higher than men on the Defensive Positive Scale (DP), but the difference was not statistically significant. This slight difference in defensiveness is not sufficient to offset the generally more positive self concept scores of the women in the study. The scores of the women on the General Maladjustment Scale (GM) indicated a higher degree of general adjustment than men, although the difference did not attain statistical significance.

Conclusions

The findings of this study contradict the conclusions of Kimmel (1974) and the findings of other researchers (Pheterson, Kiesler, and Goldberg, 1971; MacBrayer, 1960; Grant, 1966, 1969) that men have more positive self concepts than women. The sample of men (N=69) and women (N=51) in this study is small, but if further research should indicate that these results are true of the population in general, it seems likely that the feminist movement deserves much of the credit for this reversal. One of the major objectives
of feminists has been an alteration in the perception of the female role and status. While inequality still persists in many areas of employment, great strides have been taken toward equality in the last decade. In addition to tangible benefits (greater access to the higher status jobs formerly reserved for men and more equal remuneration for men and women holding identical jobs) in recent years, significant intangible benefits have been reaped as well (i.e., an increased respect for the occupational achievements of women with more infrequent contingency for success on possession of a husband and children as well and a more dominant view of women as subjects rather than objects).

In general, the male and female mean scores had the same pattern of rise and fall between scales on the TSCS, with females scoring somewhat higher (3 or 4 T-score points) on each individual scale. However, the major exception is the Social Self Scale (CE), where women scored a great deal higher (8 T-score points) than men. This could reflect a greater relative comfort of women in social roles than men, which, in turn, could be an indication of difficulties which men are having in adjusting to the altered role of women rather than a general dissatisfaction with the male role.

Another view of these findings on sex differences in self concepts which could be presented is that adult women who seek a college education have higher self concepts than
average women, or that the differences found in this study are functions of a small and atypical sample. Only further research can provide answers to the questions raised in this area.
CHAPTER FIVE

SUMMARY AND RECOMMENDATIONS

Summary

This study was designed to investigate the relationship of educational level, age, and sex to the values and self concepts of mature adult students and alumni of an external baccalaureate degree program for adults.

The subjects are 90 students and 30 alumni of the Bachelor of Liberal Studies program of the University of Oklahoma. The Study of Values and the Tennessee Self Concept Scale are the standard instruments used to measure values and self concept.

The relationship of educational level to values and self concept was determined cross-sectionally through comparison of first, second, third, and fourth year students, and alumni by analysis of variance. Alumni were included in this investigation to provide information about the stability of any differences identified.

In order to determine the effects of age on self concept and values, the subjects were divided into five age groups (21 to 30; 31 to 40; 41 to 50; 51 to 60) and analysis of variance was performed to analyze values and self concepts cross-sectionally by age group.
Analysis of variance also was utilized to identify sex differences in values and self concepts scores between men and women.

The major findings and conclusions of the study are as follows:

1. There is no indication of a consistent pattern of change from freshman to senior years in values or self concept. Therefore, it was concluded that the college experience has little--if any--effect on the values and self concepts of mature adult students.

2. There are some significant differences in values which are attributed to age. The scores of the age group between 31 and 40 were highest of any of the groups on the Economic and the Political scale and lowest on the Religious scale. These differences reached a level of statistical significance and were hypothesized to be indicative of the achievement orientation which is the major characteristic of this age group according to Gould (1972).

3. No significant differences in self concept were found that are attributable to age.

4. Several sex differences in values were noted. Men scored significantly higher than women on the Economic and Political scale, and women
scored significantly higher than men on the Aesthetic scale.

5. The values of the mature adult males of this study are similar to the values of the traditional aged males who comprise the college norms in the Manual for the Study of Values. (Allport, Vernon, and Lindzey, 1970). However, the mean scores of the women in this study are much higher for the Theoretical scale and much lower for the Social and Religious scale than the traditional aged female college students who comprise the norms for the Manual. These differences are in the masculine direction and make the women of this study more similar to the males than in the normative profile of males and females in the Manual.

6. There are several significant sex differences in self concepts indicated in the findings of this study, with the mean scores of the women significantly more positive than the men in Total Positive self concept as well as six other scales of the Tennessee Self Concept Scale.

Recommendations

Several recommendations are to be made. First, the findings of this study require a much larger population in
order to be more than suggestive, since the data presented may be valid only for the particular group studied. While some generalizations may be possible, this study in no way defines the effect of educational level, age, and sex on the values and self-concepts of all or most adults or adult college students.

The question also is raised as to whether cross-sectional methods in studying adult personality development reflect current cultural and biological conditions or whether they are contaminated heavily by conditions existing during the formative years. Such questions can be answered only by an appropriately designed longitudinal study. Because of the rapidly changing roles of men and women in our society, the values and self-concepts of both sexes must be studied on a longitudinal basis in order to assess the impact of these and other rapid cultural changes on the personality of individuals.

Although the findings of this study indicate that college has no significant effect on the values and self-concepts of adult students, it must be emphasized again that these findings are a result of a cross-sectional study with a relatively small sample (N=120). It may be possible that the values and self-concepts of individual students do, in fact, change over their college years. However, in order to determine whether this occurs, a longitudinal study is necessary.
While subjects from young adulthood to senescence are included in this study, the sample is heavily influenced by people in their mid-thirties to late fifties. More research is indicated to determine whether the results of this study regarding those in their twenties and sixties are, indeed, typical of these age groups.

Most of our current knowledge of the adult personality has been derived from research which has obtained subjects from the following two populations: (a) people with personal or psychological problems who have sought counseling or psychotherapy; or, (b) college students between 18 and 24 years of age, who are still in the adolescent stage of development. Neither of these two groups should be considered representative of the entire adult population of our society, which indicates that much of our "knowledge" of the adult personality rests on very shaky ground.

Considerable cross-sectional as well as longitudinal research using subjects from the general adult population of our country is needed before an adequate understanding of the developmental patterns of the adult personality can be achieved.
BLS STUDENT AND ALUMNI QUESTIONNAIRE

This portion of the study is very important. Your answers will remain strictly confidential, and no one except Mari Jeanne Egan will have access to them. Please answer all of the following questions and be sure to read each item carefully before providing the appropriate response.

It is hoped that the findings of this study will be of significant value to educators in understanding and serving adult college students in the future. Your contributions to this research are sincerely appreciated. Thank you!

NAME: ____________________________ DATE: __________________________

Q1. Which BLS program are (were) you enrolled in?
   1____ Basic BLS program
   2____ BLS/Junior College Option
   3____ Criminal Justice Studies Specialty Option Program
   4____ Education Studies Specialty Option Program
   5____ Management Studies Specialty Option Program
   6____ Paralegal Studies Specialty Option Program

Q2. What is your present status in the BLS program?
   1____ Enrolled in my first area of study.
   2____ Enrolled in my second area of study.
   3____ Enrolled in my third area of study.
   4____ Enrolled in my fourth area of study.
   5____ Graduate of the BLS program.

a. If you are a graduate of the BLS program, what year did you graduate?
   __________________________

Q3. What year did you first enroll in the BLS program?
   __________________________

Q4. What BLS seminar are you currently attending?
   1____ Social Sciences Seminar
   2____ Natural Sciences Seminar
   3____ Humanities Seminar
   4____ Inter-Area Seminar
   5____ Alumni Seminar
   6____ Other (please specify) __________________________
Q5. Please check all of the areas of study which you have completed.

1____ Social Sciences
2____ Natural Sciences
3____ Humanities
4____ Inter-Area

Q6. Have you been awarded a degree (or degrees) from a college or university (other than the BLS degree if you are an alumni)?

1____ Yes
2____ No

a. If yes, what was (were) the degree (degrees), your major area of study, and the year awarded?

1) Degree ____________
2) Major ____________
3) Year _________

Q7. If you are a BLS alumni, are you currently enrolled in a graduate program?

1____ Yes
2____ No
3____ Not applicable

a. If yes, what is your major and the degree you are pursuing?

1) Major _____________________
2) Degree ___________________

Q8. Before you enrolled in the BLS program, had you ever taken courses for credit at a college or university?

1____ Yes
2____ No

a. If yes, how many years of credit did you earn before entering the BLS program?

1____ Less than 1 year
2____ 1 to 1½ years
3____ 2 to 2½ years
4____ 3 to 3½ years
5____ bachelor's degree
6____ Other (please specify) _______________________

b. If yes, when was your last year of enrollment for credit at a college or university before enrolling in the BLS program?
Q9. What is your sex?
1___ Male
2___ Female

Q10. What is your date of birth?

(month) (Day) (Year)

Q11. What is your marital status?
1___ Single
2___ Married
3___ Divorced or separated
4___ Widowed

Q12. Do you have children living at home with you?
1___ Yes
2___ No

a. If yes, what are their ages? __________________________

Q13. What is your racial or ethnic background?
1___ American Indian/Native American/Amerindian
2___ Black/Negro/Afro-American
3___ Chicano/Latin American/Spanish surname
4___ Oriental/Asian American
5___ White/Caucasian
6___ Other (please specify) ______________________________

Q14. Please indicate the number of siblings you have in each of the categories below.

1___ Number of older brothers
2___ Number of younger brothers
3___ Number of older sisters
4___ Number of younger sisters
5___ Number of brothers the same age as you
6___ Number of sisters the same age as you
Q15. What is the highest level of formal education attained by your parents and, if married, by your spouse? (Check one in each column)

<table>
<thead>
<tr>
<th>Father</th>
<th>Mother</th>
<th>Spouse *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
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<td>5.</td>
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<tr>
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</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q16. Occupation of spouse *

Q17. Occupation of father

Q18. Occupation of mother

Q19. Your occupation

Q20. Who is your present (or most recent) employer?

1. Defense Department
2. Other government agency (federal, state or local)
3. Private employer
4. Self-employed
5. Other (please specify)

Q21. What was your total income last year from all sources before taxes? If married, include your spouse's income.

| 0. | None |
| 1. | Under $3,000 |
| 2. | $3,000 to $4,999 |
| 3. | $5,000 to $6,999 |
| 4. | $7,000 to $8,999 |
| 5. | $9,000 to $11,999 |
| 6. | $12,000 to $14,999 |
| 7. | $15,000 to $19,999 |
| 8. | $20,000 to $29,999 |
| 9. | $30,000 or more |

Q22. What is (was) the religious preference (i.e., methodist, catholic, agnostic, baptist, etc.) of each of the following persons?

1. Yourself
2. Your spouse *
3. Your father
4. Your mother
Q23. Which of the following statements is most true?

1_____ I am extremely religious.
2_____ I am moderately religious.
3_____ I am slightly religious.
4_____ I am not at all religious.

Q24. Which of the following statements would you say is most true?

1_____ My spouse* is (was) an extremely religious person.
2_____ My spouse* is (was) a moderately religious person.
3_____ My spouse* is (was) a slightly religious person.
4_____ My spouse* is (was) not at all religious.

Q25. Which of the following statements would you say is most true?

1_____ My father is (was) an extremely religious person.
2_____ My father is (was) a moderately religious person.
3_____ My father is (was) a slightly religious person.
4_____ My father is (was) not at all religious.

Q26. Which of the following statements would you say is most true?

1_____ My mother is (was) an extremely religious person.
2_____ My mother is (was) a moderately religious person.
3_____ My mother is (was) a slightly religious person.
4_____ My mother is (was) not at all religious.

* If you are widowed or divorced, please provide this information for your former spouse.

Q27. Some problems of current interest to some people are listed below. Please indicate the degree of concern you have for each of these problems by circling the appropriate number to the left of each statement as follows:

1. The problem is of great concern to me.
2. The problem is of considerable concern to me.
3. The problem is of some concern to me.
4. The problem is of little or no concern to me.

1 2 3 4 Solving such community problems as crime, housing shortages, traffic congestion, etc.
1 2 3 4 Strengthening scientific research.
1 2 3 4 Reducing the toll of mental illness and maladjustment.
1 2 3 4 Supporting religious goals and activities.
1 2 3 4 Reducing "cold war" tensions.
1 2 3 4 Encouraging musicians, artists, and writers.
1 2 3 4 Securing the rights of all Americans regardless of race or creed.
1 2 3 4 Improving education.
1 2 3 4 (Other)____________________________________________

THE REMAINDER OF THE QUESTIONNAIRE IS TO BE COMPLETED ONLY BY ALUMNI.

Q28. Has completion of a college degree resulted in career advancement for you?
1___ Yes
2___ No

Q29. Did you decide to change occupations as a result of your college experience?
1___ Yes
2___ No

a. If yes, what was your former occupation? _______________________

Q30. What was (were) the specific experience(s) in the BLS program that you found most helpful to you?*

Q31. Life is a matter of having a continuing series of experiences, some enjoyable, but some in effect crisis points in one's life. Usually the crisis period requires the ability to cope. Since graduating from the BLS program, what is the most significant crisis which has occurred in your life? Do you believe that you handled this crisis differently than you would have before you entered the BLS program? Please explain briefly how you coped with this crisis and, if different, how you feel you would have coped with it before your BLS experience.*

* If the space provided is insufficient for your answer, please continue on the following page.
CONSENT TO SERVE AS A SUBJECT IN RESEARCH

I consent to serve as a subject in the research investigation entitled "Impact of the College Experience on the Self Concept and Value System of Adult Students and Alumni of an External Baccalaureate Degree Program." This research is to be performed by Mari Jeanne Egan, who has explained the nature and general purpose of this research to me.

I also hereby grant my consent to the College of Liberal Studies of the University of Oklahoma to permit Mari Jeanne Egan access to my student files for the purpose of obtaining additional information about me for use in the above-mentioned research investigation.

I understand that the confidentiality of my responses will be observed in a manner consistent with the goals of the project and my individual right to privacy. I further understand that my identity will not be revealed in any publication, document, recording, video-tape, photograph, computer data storage, or in any other way which relates to this research.

Signed ________________________________
(Subject)

Date ________________________________

Witness ______________________________

Investigator __________________________

78
THE SUBJECTS OF THIS STUDY
DEMOGRAPHIC DATA

1. Type of BLS program in which the subject is (was) enrolled:

- Basic BLS Program 86
- BLS/Junior College Option 22
- Criminal Justice Studies Specialty Option Program 1
- Management Studies Specialty Option Program 11

2. Present status in the BLS program:

- Enrolled in first area of study 17
- Enrolled in second area of study 14
- Enrolled in third area of study 29
- Enrolled in fourth area of study 30
- Alumni of the BLS program 30

3. The subjects of this study enrolled in the BLS program between 1961 and 1976.

4. The BLS alumni who participated in this study graduated from the program between 1964 and 1976.

5. The following represents the number of BLS alumni who are or have been enrolled in graduate study:

- Currently enrolled 8
- Master's Degree 16
- Ph.D. 2
6. Before enrollment in the BLS program, 88 of the subjects had taken courses for credit at a college or university. The amount of credit earned for these studies ranged from less than a year to over three years.

7. Sixty-nine males and 51 females participated in the study.

8. The ages of the subjects ranged from 22 to 67 years old.

9. Information about the marital status is as follows:

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>5</td>
</tr>
<tr>
<td>Married</td>
<td>103</td>
</tr>
<tr>
<td>Divorced or separated</td>
<td>9</td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
</tr>
</tbody>
</table>

10. The racial or ethnic background of the group is as follows:

<table>
<thead>
<tr>
<th>Ethnic Background</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Native American/Amerindian</td>
<td>4</td>
</tr>
<tr>
<td>Black/Negro/Afro-American</td>
<td>1</td>
</tr>
<tr>
<td>Chicano/Latin American/Spanish surname</td>
<td>2</td>
</tr>
<tr>
<td>Oriental/Asian American</td>
<td>1</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>112</td>
</tr>
</tbody>
</table>

11. The following contains information about the highest level of formal education attained by the subjects' parents and spouse:

<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th>Mother</th>
<th>Spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td></td>
<td></td>
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<td></td>
<td>35</td>
<td>30</td>
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<td>25</td>
<td>10</td>
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<td>34</td>
<td>43</td>
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<td>8</td>
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</tr>
</tbody>
</table>
12. The employers of the subjects are represented by the following groups:

- Defense Department: 50
- Other government agency (federal, state or local): 25
- Private employer: 34
- Self-employed: 3
- Housewife: 6
- Retired: 1

13. The total family income of the subjects in 1975 was as follows:

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>-</td>
</tr>
<tr>
<td>Under $3,000</td>
<td>2</td>
</tr>
<tr>
<td>$3,000 to $4,999</td>
<td>2</td>
</tr>
<tr>
<td>$5,000 to $6,999</td>
<td>3</td>
</tr>
<tr>
<td>$7,000 to $8,999</td>
<td>5</td>
</tr>
<tr>
<td>$9,000 to $11,999</td>
<td>5</td>
</tr>
<tr>
<td>$12,000 to $14,999</td>
<td>4</td>
</tr>
<tr>
<td>$15,000 to $19,999</td>
<td>14</td>
</tr>
<tr>
<td>$20,000 to $29,999</td>
<td>53</td>
</tr>
<tr>
<td>$30,000 or more</td>
<td>30</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
</tr>
</tbody>
</table>

14. Twelve of the alumni stated that completion of a college degree resulted in career advancement, and 18 stated that it did not.

15. Eight of the alumni stated that they decided to change occupations as a result of their college education, and 22 remained in the same occupations after graduation.

16. The average age of the subjects is 43.8 years old. The following is a breakdown by level of education:

- First year students: 43.5 years old
- Second year students: 42.2 years old
- Third year students: 40.3 years old
- Fourth year students: 40.9 years old
- Alumni: 51.2 years old
### LIST OF REFERENCES


Plant, W. T., and Minium, E. W. Differential personality development in young adults of markedly different aptitude levels. *Journal of Educational Psychology*, 58 (3), 141-152.


