

The Woman's College of  
The University of North Carolina  
LIBRARY



CQ  
no. 254

COLLEGE COLLECTION

Gift of  
Edith Beard Corriher

COMPARATIVE RECORDS OF COLLEGE STUDENTS  
BEFORE AND AFTER MARRIAGE

by  
Edith Beard Corriher

A Thesis Submitted to  
the Faculty of  
the Consolidated University of North Carolina  
in Partial Fulfillment  
of the Requirements for the Degree  
Master of Science in Home Economics

Greensboro  
1960

Approved by

  
Doctor Irwin V. Speer, Advisor

ACKNOWLEDGEMENTS

The writer is deeply grateful to Dr. Irwin V. Sperry, chairman of the thesis committee, for his guidance and encouragement throughout this study and for the assistance of other members of that committee who were Mrs. Madeleine Street, Miss Helen Canaday, and Dr. D. W. Russell.

Grateful appreciation is also expressed to the faculty, staff members, and students of Catawba College for their assistance with college records used in securing data for this study.

E. B. C.

## TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM AND DEFINITIONS OF TERMS USED. . . . .	1
The problem. . . . .	3
Statement of the problem . . . . .	3
Importance of the study. . . . .	3
Definitions of terms used. . . . .	6
Pre-marriage . . . . .	6
Post-marriage. . . . .	6
Academic grades. . . . .	6
Extra-curricular activities. . . . .	6
Points assigned to extra-curricular activities . . . . .	6
Semester hours . . . . .	7
Organization of the remainder of the thesis . . . . .	7
II. REVIEW OF THE LITERATURE . . . . .	8
Literature on the research concerning the effect of college marriages on academic grades . . . . .	11
Literature on the research concerning the effect of college marriages on partici- pation in extra-curricular activities. . . . .	15

CHAPTER	PAGE
Literature concerning the number of semester hours taken. . . . .	21
Literature on problems encountered by the married college student . . . . .	23
III. METHODS USED AND GROUP STUDIED . . . . .	29
The situation . . . . .	30
The group . . . . .	31
Techniques. . . . .	32
Academic grades . . . . .	33
Extra-curricular activities . . . . .	35
Semester hours . . . . .	35
IV. ANALYSIS OF THE DATA. . . . .	37
Academic grades . . . . .	39
Extra-curricular activities . . . . .	40
Semester hours . . . . .	41
V. SUMMARY AND CONCLUSIONS . . . . .	43
Summary . . . . .	44
Conclusions . . . . .	45
Academic grades . . . . .	45
Participation in Extra-curricular activities. . . . .	46
Semester hours. . . . .	47

CHAPTER	PAGE
Conclusions as to the limitations of the group and the method. . . . .	48
Conclusions as to recommendations for further research. . . . .	49
BIBLIOGRAPHY. . . . .	51
APPENDIX. . . . .	54

## LIST OF TABLES

TABLE	PAGE
I. The Distribution of Married Students and the Percentages for Each Senior Class. . .	32
II. Mean Academic Grades of Students Before and After Marriage. . . . .	55
III. Mean Extra-Curricular Activities Points of Students Before and After Marriage. . .	58
IV. Mean Semester Hours Taken by Students Before and After Marriage. . . . .	61

## CHAPTER I

### THE PROBLEMS AND DEFINITIONS OF TERMS USED

Married students are attending colleges and universities in continuously increasing numbers. This trend has been in existence for the past two decades, and the conditions which affected it appear to have been the following: First, The GI Bill of Rights, during World War II, made it possible for a veteran to support a wife and attend college at the same time. This government subsidy encouraged the practice of veterans' attending college after marriage, and non-veterans followed their example. Second, there was general population increase which changed the composition of the college population. There were greater numbers of married as well as single students attending colleges. The third condition tending toward an increased number of married college students was the fact that people were marrying at an earlier age than formerly.

Elizabeth Pope made the following statement in regard to the increase in the number of college marriages:

In the past fifteen years the number of married college students has jumped from barely a handful to something over 700,000. This means that roughly one out of every five of the current college student body is either a husband or a wife. Barring an



economic disaster, the outlook is for the collegiate marriage rate to keep on climbing.<sup>1</sup>

In this increasing population of married college students there are three categories represented; first, the group who married after high school, and who entered college immediately; second, the group who married, and whose education was interrupted for a period of time by jobs, families, or military service; third, the group who married while in college. Although all married college students were confronted with problems of adjustment, only the last group have been considered in this study.

The questions for consideration in this investigation were the following: (1) did marriage affect the academic grades of students who marry while in college? (2) did marriage affect participation in extra-curricular activities of students who marry while in college? and (3) was there a difference in the number of semester hours taken by college students before and after marriage?

The answers to these questions may be of concern not only to the married college student, but also to college administrators. Other studies have compared two groups of college students, the married and the unmarried. The present

---

<sup>1</sup> Elizabeth Pope, "Why Do They Marry?" Good Housekeeping, 148:59, May, 1959.

investigation dealt with the pre-marriage and the post-marriage status of the same group of students, and sought to determine the effect of marriage on the academic grades, the participation in extra-curricular activities, and the number of semester hours taken.

### I. THE PROBLEM

Statement of the problem. It was the purpose of this study to determine whether there was a difference between certain achievements of college students before and after marriage, with regard to academic grades, participation in extra-curricular activities, and number of semester hours taken.

Importance of the study. Although married students have attended colleges in large numbers only during the past two decades, the practice has become a definite part of college life.

Administrators and students have various and controversial opinions concerning the desirability of married students on the college campus. John A. Hannah,<sup>2</sup> president of Michigan State University, expressed his belief that the married student is not a liability, but an asset which lends

---

<sup>2</sup>"The Married Student," Newsweek, 49:50, March 4, 1957.

quality, stability, and strength of purpose to the student body. Other administrators have given their reactions both as opinions and as results of studies concerning the subject of college marriages. However, the married college student is an accepted part of the college community, and further study is needed in every area of college life in order to understand better the problems of both married students and college administrators who cope with this situation.

Richard K. Morton,<sup>3</sup> Dean of The Evening College at Jacksonville University in Florida, has offered a list of favorable and unfavorable arguments concerning married college students, which this investigator has summarized as follows:

Favorable arguments:

1. They seem to have greater maturity of thought.
2. Their experiences are wider and more varied.
3. They possess an increased constructiveness of motivation.
4. They have a greater sense of responsibility.
5. They are more diligent.
6. They are more stable.

---

<sup>3</sup> Richard K. Morton, "College Training and the Married Student," Association of American Colleges Bulletin, "44:624-627, December, 1958.

7. They have greater facility in relating what is learned to life.

Unfavorable arguments:

1. They are preoccupied with family responsibility.
2. Often marital affairs interfere with college work.
3. They have a greater concern over money matters.
4. Increased community interests are burdensome.
5. There are frequent absences due to emergencies.
6. They often expect college rules to be changed to suit their needs.
7. Living conditions are of great concern.

The preceding arguments were based on individual opinions, and were not supported by research; hence they offer clues and hypotheses which need to be supported by factual data.

In the present study the investigator has made an effort to secure a pre-marriage and a post-marriage comparison of academic grades, participation in extra-curricular activities, and the number of semester hours taken. The group used for this study included 106 Catawba College students who had married during their college careers. The same group of students was used for the study to show the effect of marriage on the three areas tested, rather than making use of a control group of unmarried students

to be compared with a similar group of married students. The results should indicate whether marriage has had an effect on the three aspects of college life studied. Since it has been predicted that the proportion of married college students will increase markedly within the next decade, it is even more important to conduct more objective research relative to the effect of marriage on college students.

## II. DEFINITIONS OF TERMS USED

In order that certain terms be correctly interpreted, definitions have been offered denoting their usage in this study.

Pre-marriage is used to designate the student's situation prior to marriage.

Post-marriage is used to denote the student's situation after marriage.

Academic grades refers to grades received by students for accredited college courses listed in the Catawba College Catalogue.

Extra-curricular activities refers to all activities on the campus exclusive of classroom work, and approved by the administrative committee of Catawba College and listed in the student hand-book.

Points assigned to extra-curricular activities are points which were assigned to each activity by the

Catawba College Student Government Association, and were listed in the student hand-book.

Semester hours applies to course credits as listed in the college catalogue.

### III. ORGANIZATION OF THE REMAINDER OF THE THESIS

The following chapters deal with the literature, the methods used in collecting the data, analysis of the data, and the summary and conclusions. Chapter II consists of a review of the literature concerning college marriages. A full discussion of methods and procedures used in this study will be given in Chapter III. Chapter IV will provide a description of the findings using a group of 106 Catawba College students who married during the academic years of 1957, 1958, 1959, and 1960. Chapter V will contain the summary and conclusions, and will offer recommendations for further research relative to the problems of the married student.

## CHAPTER II

### REVIEW OF THE LITERATURE

The literature relating to college marriages dealt with the many problems of both students and administrators relative to this phenomenon. The investigator found articles written in periodicals as early as 1942 which indicated an interest in the trend early in its existence. These articles were written by college administrators, sociologists, anthropologists, and the married students themselves; and were the results of research, ideas, and opinions of this group.

Although the greater portion of the literature was found in popular and professional periodicals it is interesting to note references to the general subject of college marriages in several of the current college texts written for courses in Marriage and Family Living.

Jessie Bernard, Helen E. Buchanan, and William M. Smith, Jr.,<sup>1</sup> included a section in their text, Dating, Mating, and Marriage, called "Student Marriages". This chapter's introduction dealt with the early ages at which young people marry, and the percentages of married to single college

---

<sup>1</sup> Jessie Bernard, Helen E. Buchanan, and William M. Smith, Jr., Dating, Mating, and Marriage (Cleveland: Howard Allen, Inc., 1958), p. 217.

students. The chapter continued with a presentation of cases and documents applied to the problems encountered by undergraduate married students.

The text, Marriage for Moderns, written by Henry A. Bowman,<sup>2</sup> of the University of Texas, discussed a series of education-plus-marriage situations in a chapter called, "Young Marriage Today". Included in these situations were age and maturity, status, grades, husbands' mobility, attitude of parents, and finances.

Ruth Shonle Cavan<sup>3</sup> has prepared a book of readings, Marriage and Family in the Modern World, in which she included six current articles from periodicals. Some of these were used in this review. Also in her text, American Marriage,<sup>4</sup> she discussed college marriages and their effect on the college life pattern.

---

<sup>2</sup> Henry A. Bowman, Marriage for Moderns (New York: McGraw-Hill Book Company, Inc., 1960), p. 481.

<sup>3</sup> Ruth Shonle Cavan, Marriage and Family in the Modern World (New York: Thomas Y. Crowell Company, 1960), p. 261.

<sup>4</sup> Ruth Shonle Cavan, American Marriage (New York: Thomas Y. Crowell Company, 1959), p. 221.



In a text, by Landis and Landis,<sup>5</sup> called Building a Successful Marriage, the investigator found references to the advantages and disadvantages of college marriages and some considerations necessary to make marriages more successful.

In addition to the references listed above, the investigator also secured information concerning recent studies in a monograph from a leading university.

Included in the literature concerning college marriages were the following topics of research and discussion: grade comparisons, studies concerning extra-curricular activities, housing for the married student, problems of adjustment, semester hours taken by students before and after marriage, and financial adjustments of the married college student. Although investigations pertaining to married students included the many areas listed above, only the literature directly related to this study will be reviewed here.

Academic grades are the measuring device used by colleges and universities to determine a student's achievement. Any influence on these records is of concern to the college administrator, and it was the purpose of this study to determine whether or not marriage affected these grades in the group studied. As a background for this study the

---

<sup>5</sup> Judson T. Landis and Mary G. Landis, Building a Successful Marriage (Englewood Cliffs: Prentice-Hall, Inc., 1958), p. 179.

investigator found in the literature records of studies and opinions by others interested in this area of college achievement.

Literature on the research concerning the effect of college marriages on academic grades. Research has revealed that student grades improve after marriage. However, there has not been enough research to prove this conclusively, nor has there been time enough in which to establish it factually. Included in the following review are the results of some of the research with some reasons for the findings.

Relative to academic grades and other adjustments of the married college student, Paul H. Landis points out that:

Several researchers have thrown some light on problems of marriage adjustment of college students and success of married couples in their studies. In essence they have shown that marriage while in college is a satisfactory venture, both from the standpoint of scholastic achievement and marriage adjustment as such.<sup>6</sup>

In the same text, Landis<sup>7</sup> quotes from a study made in 1947 at Michigan State College which indicated that not only do married students have better grades than the unmarried students, but they have a greater sense of emotional security and feel more settled.

---

<sup>6</sup> Paul H. Landis, Making the Most of Marriage (New York: Appleton-Century Crofts, Inc., 1955), p. 200.

<sup>7</sup> Ibid., p. 201.

Throughout the literature the investigator found references to academic grade comparisons, and in some cases the reasons were indicated. This was summarized by James Bossard and Eleanor Boll in an article on campus marriages:

Until the late 1940's the elders of higher education held firmly to the belief that marriage and education could never mix. How do marriages affect scholastic performance? Reports from several large universities agree that both men's and women's grades improve with engagement and after marriage. Several explanations are given for this. One sees it as the result of a "settling down" after the preoccupation with dating and other activities of the chase. The need of men students to get that degree in order to support families is sobering.<sup>8</sup>

Some of the studies recorded in the literature pertained to the married veteran student and his problems. One of these studies was made at the University of Wisconsin, and the results were summarized as follows:

Paul L. Trump,<sup>9</sup> advisor of men at the University of Wisconsin, carried out an investigation on grade point averages, and in his brief report indicated that measured by grade point averages, the married veteran student was academically more successful than the single veteran student.

<sup>8</sup> James H. S. Bossard and Eleanor Stoker Boll, "Campus Marriages--For Better or For Worse," The New York Times Magazine, April 5, 1959, p. 59.

<sup>9</sup> Suend Reimer, "Married Veterans Are Good Students," Marriage and Family Living, 9:11-12, February, 1947.

He further stated that the married veteran with children is academically more successful than the married veteran without children. His report also stated that veterans exceeded non-veterans in scholastic average in each of the four years of work with a total grade point average of 1.66 as against 1.57 for non-veterans. His research was carried on in answer to the question raised by educators who feared the burden of family responsibilities might lower the academic efficiency of this particular student group. The educators were concerned because of the married students' oftentimes triple burden of work; for it was necessary for most of them to pursue their studies, make a living, and take care of chores in their households.

Not only have studies been made concerning the married veteran college student, but interest in the advisability of all campus marriages has increased markedly in the past few years. Lester Kirkendall made the following statement.

Some fear that campus marriages will interfere with scholastic success. Studies suggest that this concern is groundless. Campus courtship probably interferes more with scholastic success than campus marriages. Marriage seems to stimulate scholastic achievement.<sup>10</sup>

---

<sup>10</sup> Lester A. Kirkendall, "Campus Marriages--Are They Practicable?" Junior College Journal, 28:160, November, 1957

In the same trend of thought, Richard K. Morton<sup>11</sup> has concluded that after written and oral surveys, investigations, and questionings, he found no significant correlation between effectiveness in college work and the marital status.

Although there have been a great number of postulations made with regard to married and single students, the literature had very little to offer in the way of actual research. The purpose of a study made by Vern H. Jensen and Monroe Clark<sup>12</sup> was to compare students who had been married all four years of college with single students in the area of achievement, academic ability, and personality. One of these conclusions was that married and single students were approximately of equal academic ability. He rejected the hypothesis that married students achieved a higher level in academic grades than did single students.

On the graduate level as well as the undergraduate level references were made concerning the married college students' academic grades. This was true of a statement

---

<sup>11</sup> Richard K. Morton, "College Training and the Married Student," Association of American Colleges Bulletin, 44:624-627, December, 1958.

<sup>12</sup> Vern H. Jensen and Monroe Clark, "Married and Unmarried College Students, Achievement, Ability, and Personality," Personnel and Guidance Journal. 37:123-5, October, 1958.

made by Patricia Carbine in an article found in Look magazine.

Among Cornell's 1200 graduate students, the 900 who were married consistently earn better grades, despite many built in strains.<sup>13</sup>

This statement is indicative of the prevailing opinion regarding the achievement of the married and unmarried college students.

Literature concerning the effect of college marriages on participation in extra-curricular activities. There was an indication in the literature pertaining to participation in extra-curricular activities that often married students spent less time in non-academic pursuits. Studies show that there were various reasons for this change in the college pattern of the student, and some of the reasons are presented and explained in the following article.

In answer to the question, "How do college marriages affect participation in campus activities", one opinion was set forth by Bossard and Boll<sup>14</sup> as written for the New York Times Magazine when they stated that marriage seems to lessen participation in campus activities. They suggest

---

<sup>13</sup> Patricia Carbine, "More Married Students," Look, 23:125, October 27, 1959.

<sup>14</sup> James H.S. Bossard and Eleanor Stoker Boll, "Campus Marriages--For Better or for Worse," The New York Times Magazine, p. 59, April 5, 1959.

that most students find running a home, nurturing a marriage, and studying combine to make a sufficiently full schedule to preclude campus participation. They further stated that many married students seemed to feel that marriage had given them a maturity beyond that of their single friends who were still interested in dating and "being in on things". However, Bossard and Boll also made the following statement.

This withdrawal seems to be less true of married male students. Here often, the student activity may be related to future plans and aspirations, as in the case of the athlete who plans to commercialize on his ability after graduation, or the star debator who is planning to go to law school. However, administrators report that even among the men, promising campus leaders tend to become less active after marriage; if they become fathers too, they are little more than commuters to classes.<sup>15</sup>

In other studies the married students were questioned as to their participation in extra-curricular activities, and the results were reported in the studies below.

From a study made at Kansas State College by Jean Marchand and Louise Langford,<sup>16</sup> it was found that some of

---

<sup>15</sup> Ibid., p. 60.

<sup>16</sup> Jean Marchand and Louise Langford, "Adjustments of Married Students," Journal of Home Economics, 44:113-114, February, 1952.

the men and nearly all of the women in the study indicated that they participated in fewer extra-curricular activities after marriage because of their home responsibilities.

The investigators stated:

This would seem to suggest the question: has the married individual less need for such activities or do the usual college extra-curricular activities fail to meet the needs of the married man and woman?<sup>17</sup>

As a result of investigations concerning the types of extra-curricular activities, it was concluded that a change should be made in the kind of activity rather than in the number of activities. Havemann<sup>18</sup> noted that at the University of Wisconsin there was a sharp decline in the number of dances but was compensated for by a corresponding increase in attendance at more sedate diversions as lectures, plays, and concerts. He further added that educators are beginning to wonder about the fate of the fraternities and sororities that depend upon the availability of single students to live in the houses.

<sup>17</sup> Ibid., p. 114.

<sup>18</sup> Ernest Havemann, "To Love, Honor, Obey...and Study," Life, 38:152-156, May 23, 1955.



One of the most extensive studies which has been made concerning this area of college life was conducted by Everett M. Rogers<sup>19</sup> at Iowa State College. His findings were recorded in an article as written in College and University, Winter, 1958, and are reviewed.

Rogers stated that college and university administrators generally feel that they owe it to their students to provide adequate opportunities for a full social life as well as an adequate educational program. He further added that married students at the present time did not seem to be utilizing college sponsored social activity programs to the same extent as did single students. It was indicated as a result of the study that college administrators seeking to increase participation in college social activities by married students must consider the different social characteristics of married students. The purpose of the study by Rogers was to determine why married students had a lower degree of participation and if true why marriage led to a lower degree of participation. The study was completed in 1956 at Iowa State College, and consisted of a randomly selected sample of the 8200 students enrolled during the

---

<sup>19</sup> Everett M. Rogers, "The Effect of Campus Marriage on Participation in College Life," College and University, Vol. 33 No. 2:193-199, Winter, 1958.

winter term. Members of the sample were contacted by mail questionnaires, and usable responses from 88.3 per cent of the sample were received. There were 725 respondents who were generalized to the total population. Pertinent findings of this study were: married students were more likely to be male and 60 per cent of them were veterans in the last two years of college. They were in most cases working, owned their own cars, and were less likely to receive financial aid from their families than were single students.

The three areas of participation in extra-curricular activities used in Rogers' study were participation in campus activities, attendance at college athletic activities, and attendance at college sponsored social events. It was found that more than 30 per cent of the married students did not participate in any activity on the campus.

The points for the Rogers<sup>20</sup> study were set up by the investigator, and ranged in value from zero to fifteen points. In the first area, that of participation in campus activities, the average for the married student was 3.72 points, and the average for the single student was 7.96 points. In the second area, attendance at athletic events, which was free

---

<sup>20</sup> Ibid., p. 195.

to the students, single students scored 7.02 points, married students without children scored 6.33 points, and married students with children scored 4.06 points. In the area of attendance at social events, single students scored 7.60 points, married students without children scored 5.46 points, and married students with children scored 3.19 points.

Reasons given in this study for lower participation in extra-curricular activities were that the married students sampled may have lacked human relations skills, and that marriage might have appealed to those who were already low participators in activities. Other reasons given were that the married students may have undergone changes in interest, amount of time available, and motivation. More than half of the students in the study responded that marriage caused a decrease in their participation in extra-curricular activities. None of the students in the study said that marriage caused an increase in their participation in extra-curricular activities.

Similar to the findings in the preceding study were the results of one by Martinson,<sup>21</sup> of Gustavus Adolphus College which confirmed Rogers' conclusions. In this study it was stated that the hypothesis was supported and that

---

<sup>21</sup> Suend Reimer, "Marriage on the Campus of University of Washington," American Sociological Review, 7:810-815, December, 1942.

other things being equal, (sex, age, intelligence, position in the family, nationality, father's occupation, community, and amount of education) persons who married young demonstrated greater feelings of ego deficiency than did persons who remained single.

The range of these studies was found to cover the period from 1942 to the present time, which gave evidence to the fact that fairly extensive interest and study was being given the problem of participation in extra-curricular activities on the college campuses.

Literature concerning the number of semester hours taken. This investigator found no definite references to research conducted on the comparison of the number of semester hours taken by college students before and after marriage. However, included in the literature pertaining to other areas of college marriages, reference was made to this problem and the studies were included in this review.

Jean Marchand's<sup>22</sup> study at Kansas State College had the following objectives; (1) to determine the effect of children on the mother's participation in college activities, (2) to find the modification of curriculum resulting from women and men students who have children, and, (3) to find

---

<sup>22</sup> Jean Marchand and Louise Langford, "Adjustments of Married Students," Journal of Home Economics, 44:113-114, February, 1952.

out how home responsibilities were performed by these men and women students. The following conclusions were drawn from this study: (1) most women (especially mothers) did not carry the full load of college activities. (2) the difference in the number of semester hours taken was pronounced between the women who had children and those who did not. (3) several women reported a change in curricula because of a change in interest after marriage. (4) some of the men from each group enrolled in courses offered at a particular time of day so that time would be freed for home responsibilities.

Marchand made the following statement concerning her findings:

When the data were analyzed, the impressions developed that these young people were fashioning a satisfactory way of living for themselves, and for their families. These couples seemed pleased with the co-operative approach to adjustments which they found necessary in combining school and family.<sup>23</sup>

Because of the responsibilities related to marriage, it was often necessary for the married college student to attend classes and work at the same time. The jobs held by the married students were usually on a part-time basis

---

<sup>23</sup> Ibid., p114.

which reduced the academic work load proportionately.

In 1957 the United States Census Bureau<sup>24</sup> reported that 29 per cent of the male and 10 per cent of the female college students were married on the undergraduate level. On the professional school level 41 per cent of the male and 18 per cent of the female students were married. Since it seemed necessary that the greater number of married students work, there was an indication that a greater percentage of these students were part-time students.

Literature on Problems encountered by the married college student. The investigator found many contrary ideas set forth concerning college marriages. These were held by both administrators and students. Since the problems encountered by the married student have a direct relationship with the areas of this study, reference to them will be included in this review. However, no particular order will be followed in their presentation thus eliminating any formal debate on the reasons for or against college marriages.

Rogers<sup>25</sup> stated that the trend toward more college

---

<sup>24</sup> James H.S. Bossard and Eleanor Stoker Boll, "Campus Marriages--For Better or For Worse," The New York Times Magazine, April 5, 1959, p.59.

<sup>25</sup> Everett M. Rogers, "The Effect of Campus Marriage on Participation in College Life." College and University, Vol. 33 No. 2:193-199, Winter, 1958.

marriages, coupled with the swelling total enrollment in the United States, has produced a greatly increased number of married college students. He further stated that this tendency may be traced to the decrease in the average age at marriage. In 1960 the average age for the first marriage for women was approximately twenty years and for men approximately twenty-two years. These ages were compared with the averages of seventy-five years ago which were approximately twenty-four years for women and approximately twenty-six and one half years for men. Another reason for increased campus marriages has been the general acceptance of married college students. A last and probably the more effective reason, according to Rogers, for campus marriages was the advent of government sponsored educational programs for veterans which encouraged the matriculation of older students and those more likely to be married.

Administrators in many leading universities have expressed concern regarding the problems of married college students and the underlying causes for these difficulties. The following statement was made by Richard K. Morton in an article as written for the Association of American Colleges Bulletin.

Students are partly the products of an era in which early marriages have become the general fashion. It is simply understood that one marries, and then works out any embarrassing economic or social complications later. This is in part due to delayed reactions from war deprivations and delays. It is likely, however, that it is due more to the sex preoccupation of our times, stimulated so much by current TV and movie productions, periodicals, and the like.<sup>26</sup>

In the same article he stated that our students are the social products of an age which expects more outright help from the government and from a variety of social, educational, and religious agencies. He also suggests that students on the whole can still give more time and thought to their work (including graduate work) if they are not encumbered with family responsibilities. Morton went on to make the following statement.

While I do not have any clear-cut statistics to prove the allegation, I think the introduction of so many married students into both day and night classes has injected an element of superpracticality that can be harmful. There is little proper evaluation on the part of many of purely cultural and scholastic value. They look on everything largely with the eyes of those affecting its relevance to their own local and temporary situation. There is also a discordant element sometimes between

---

<sup>26</sup> Richard K. Morton, "College Training and the Married Student," Association of American Colleges Bulletin, 44:624-627, December, 1958.



them and the single student because of their different evaluation of much material and their different social reference.<sup>27</sup>

An article by Ernest Havemann<sup>28</sup> written for the Life magazine lists further reasons why students marry while in college. He suggested that non-veteran married students observe that veteran students manage though married, and they say, "Why not us?" He further attributed their early marriages to the fact that the parents often encouraged and supported early marriages of their children.

In the same article, the author stated the hazards to campus marriages as being lack of time, burdens of housework, isolation from classmates, bleakness of vacations, and inability to get around.

He indicated four major objections to campus marriages as follows: (1) a student may lose a great deal of his "get-up-and-go" and settle for a salaried job instead of going "out-on-his-own"; (2) a wife's support may cause the male student to become pathologically lazy, and he will want the support to continue; (3) a student may desire to continue academic jobs so as not to lose caste; (4) a student may lose the urge to travel and broaden his

---

<sup>27</sup> Ibid., p. 626.

<sup>28</sup> Ernest Havemann, "To Love, Honor, Obey...and Study," Life, 38:152-156, May 23, 1955.

horizons.

In contrast to the above list of objections to campus marriages, Ralph H. Ojemann of the University of Iowa as quoted by Dunbar, made the following statement:

Young marriage is a fine thing. When a girl works along with a boy to get a marriage started, it becomes a genuine cooperative enterprise. I think we made a mistake when we emphasized waiting until a man is financially established.<sup>29</sup>

Bossard has given the following answer to the familiar question "Are campus marriages good or bad?"

On the basis of our studies as family sociologists, we consider such marriages not only undesirable but highly risky. There are the harmful early effects on children who are usually unlooked for and unwanted. There is the financial insecurity for most with all the strain and stress it brings. And there are the dangerous consequences to the persons themselves, whether they be the working wife who drops below her husband's educational level or the husband unable to adjust emotionally to being supported by his wife.<sup>30</sup>

In addition to the problems which the married student and the administrators have in coping with college

---

<sup>29</sup> Ruth Dunbar, "Experts Like Trend to Early Marriages," Science Digest, 40:22, October, 1956.

<sup>30</sup> James H. S. Bossard and Eleanor Stoker Boll, "Campus Marriages--For Better or For Worse," The New York Times Magazine, April 5, 1959, p.59.

marriages, society as a whole is affected by the great increase in married students. A reference to this issue was found in an article by Kate Hevner Mueller written in 1960.

Many potential leaders in the sciences, arts, and education are being lost to society because these young married students do not pursue their education... Campus marriage is the most critical hazard for those able young women who have been named the best untapped source of the highly skilled manpower needed in our country today.<sup>31</sup>

It is evident, therefore, that there is a definite divergence of opinion among authorities relative to the desirability of college marriages. It is also evident that there is a dearth of objective data to support or refute either opinion.

---

<sup>31</sup> Kate Hevner Mueller, "The Married Student of the Campus," College and University, Vol. 35, No. 2, Winter, 1960.

### CHAPTER III

#### METHODS USED AND GROUP STUDIED

Each student in the graduating classes of 1957, 1958, 1959, and 1960 at Catawba College, who married during the four year period of attendance at college was used in the group for this study. It was necessary to have a selected group of students who were in college at least one semester before marriage and one semester after marriage in order to compare the pre-marriage and post-marriage records. The date of marriage was secured to determine the placement of each semester used in the comparison as to its pre-marriage or post-marriage position. A statistical comparison was then made of academic grades, of participation in extra-curricular activities, and of the number of semester hours taken. Factual data for academic grades for all persons in the group were secured from the official college records. Participation in extra-curricular activities data were secured from information in personnel records provided by the students. The data concerning the number of semester hours taken by each student before and after marriage were taken from the official college records secured from the registrar's office.

## I. THE SITUATION

Catawba College is a church related liberal arts college located in Salisbury, a city of twenty thousand population, in the Piedmont Section of North Carolina. This one hundred and eight year old institution has always been a coeducational college. Its total enrollment of 780 students was made up of both boarding and day students. For the purpose of this study, only students who married after entering college were used. However, transfer students who qualified were included in the group. Some of the students in the study had been out of college for a period of time, but they were used if they met the criteria for inclusion. This latter group included both transfer students and regular Catawba College students.

It was during World War II that married students were admitted to Catawba College in increasing numbers, but it was in the early nineteen thirties that the first married student was permitted to attend the college.

At the time this study was made the married student was an accepted member of the college group. The Administration did not provide any housing accommodations for the married student, but apartments in various price ranges, near the campus, were available. Because of its location

Catawba College is within easy commuting distance of a thickly populated area of North Carolina. The administration has included in its catalogue a section entitled "Education for Veterans" with information regarding expenses, admission requirements, and curriculum. This seemed to be an indication of its interest in that portion of its student body.

The student was not required to notify the registrar's office of his marriage, but a record of marriage was filed for personnel information in the offices of the dean of men and the dean of women. These records were used in securing necessary information for the study.

## II. THE GROUP

Names of students who married while at Catawba College were originally secured for the investigator from the year books by one of its editors. The students in the graduating classes of the years 1957, 1958, 1959, and 1960 were used to make up the group for this study. In addition to this original list of fifty-three students, records in the registrar's office, (changes in the names of women who married were recorded) and in the deans' offices increased the number of the group to a total of 106 men and women. The group contained forty-three women and sixty-three men.

Students were selected by classes, and for the purpose of this study, it was necessary for them to have at least one semester of college work before and one semester of college work after marriage for purposes of comparison.

Table I shows the distribution of students who qualified for this study in each year's graduating class.

TABLE I

THE DISTRIBUTION OF MARRIED STUDENTS  
AND THE PERCENTAGES FOR EACH SENIOR CLASS

Year	No. in Class	No. Married	Percentage
1957	149	18	12%
1958	151	23	15%
1959	165	34	20%
1960	<u>137</u>	<u>31</u>	22%
Totals	602	106	

## III. TECHNIQUES

The names of the married students used in the group were listed. A file card was prepared for each student with the following information: (1) name; (2) sex; (3) marriage date; and/or (4) number of pre-marriage semester hours and number of post-marriage semester hours; (5)

a tabulation of academic grades for two semesters before marriage and for two semesters after marriage with the mean grades for each condition; ( In a few cases one pre-marriage semester was compared with one post-marriage semester if the time of marriage made this necessary); (6) a tabulated list of points for pre-marriage and post-marriage participation in extra-curricular activities mean scores for each situation; (7) pre-marriage and post-marriage semester hours taken by each student secured from his record in the official college files, and mean number of hours per semester computed.

All data used were thus derived from the permanent college records. The group of 106 students was compared for at least one pre-marriage semester and at least one post-marriage semester in the following areas: academic grades, participation in extra-curricular activities, and the number of semester hours taken. In only a few cases was it necessary to use the freshman grades of the students in the group. This minimized use of first year grades gave a truer pre-marriage and post-marriage comparison of achievements, since records were generally lower in the freshman year. This tended to reduce the effects of lower freshman grades but did not entirely eliminate them.

Academic grades were secured from the registrar's office where they were on file as a permanent record for



each student. The investigator was allowed to use this source of information by permission of the administration and with the assistance of the registrar's secretary.

The letter grade was changed to its equivalent in numerical points for tabulation as follows:

Letter grade	Points
A.....	4
B.....	3
C.....	2
D.....	1
F.....	0

Whenever possible two semester's grades prior to marriage and two after marriage were tabulated and a mean grade was computed and recorded. The pre-marriage mean grades were placed in one column directly beside the post-marriage mean grades for each student in the group. The data for academic grades are included in Table II. The data sheet used in the statistical analysis was prepared in five columns. The first contained the code number of the students in the group, the second the mean pre-marriage grade, the third the mean post-marriage grade, the fourth the difference between the first and second columns as well as the direction of the differences, and the fifth the differences squared for use in the computations.

Extra-curricular activities scores. A list of extra-curricular activities was tabulated for each student on his file card. Two columns were made, one with the activities participated in before marriage, and the other column with the activities participated in after marriage. The activities were secured from information in personnel records provided by the students.

Points were used to give a numerical value to each of the activities; these points were based on the point system used by the student government and were found in the student hand-book. The investigator found that some of the students did not participate in any extra-curricular activity either before or after marriage. In preparing the data sheet for the statistical analysis, the procedure used for the academic grades was repeated. These data are found in Table III.

Semester hours. The number of semester hours taken by each student before and after marriage was tabulated on the file card. This information was secured at the same time that the academic grades were recorded from the records in the registrar's office. The same two semesters were used to secure the number of hours taken before and after marriage as was used for the academic grades. The number of pre-marriage semester hours taken was placed in

the first column of the student's file card, and the number of post-marriage semester hours taken by the student was placed in the second column of the student's file card. The two totals from these two columns were transferred to the data sheet which was prepared for the statistical analysis. The third column on the data sheet was the difference between the two first columns, and the direction of the differences was also indicated in this column. The summation of these differences was computed and this total was used in the statistical formula. In the last column the differences were squared and listed, and the sum of these differences squared was also used in the statistical formula. The data for pre-marriage and post-marriage semester hours taken by the students are included in Table IV.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to compare the records of the college students before and after marriage in the following areas: (1) academic grades, (2) participation in extra-curricular activities, and (3) the number of semester hours taken.

The question to be answered concerning each of the three areas of comparison was whether there was a difference between the academic grades, the participation in extra-curricular activities, and the number of semester hours taken before and after marriage of the same group of students.

Because the investigator was dealing with relative assumptions pertaining to differences that existed between conditions before and after marriage of the same group of students, it was necessary to use the more exacting null hypothesis<sup>1</sup> which asserts that no true difference exists between the two conditions of the same group; thus, this definite hypothesis was treated statistically in order to arrive at a conclusive answer. In this study the general

---

<sup>1</sup> Solomon Diamond, Information and Error (New York: Basic Books, Inc., 1959), p. 101.

hypothesis was, therefore, that there was no significant difference between the academic grades, the participation in extra-curricular activities, and the number of semester hours taken by college students before and after marriage. The degree of confidence with which to reject or accept this hypothesis would depend upon the relative frequency with which results deviating as much from the hypothetical as those found in this group would occur by chance if the hypothesis were true.

Since there were paired scores, the efficacy of the experimental conditions in terms of the ratio of the mean difference to the standard error of the mean difference could be tested. First the scores were listed by pairs, academic grades before and after marriage. Then a column of "D" scores was computed which revealed the difference between the two conditions for each subject. It was also necessary to indicate the direction of the difference. When the second score was larger than the first it was shown as a negative difference. Since this was investigating the consistency of a trend, the direction of each difference was important as well as its magnitude. In the last column, the differences were squared, and the summation was computed for use in the formula. The computation was shown for the mean difference and for the variance of the mean difference, and also for  $\bar{t}$ , which

In this case is the ratio of the mean difference to the standard error of the mean difference.

These were included in a single formula which combined all of the steps which were involved in testing the significance of a difference between paired scores. Thus the following formula was used:<sup>2</sup>

$$t^2 = \frac{(n-1) (\sum D)^2}{n \sum D^2 - (\sum D)^2}$$

In this formula, n is the total number of students in the group and D is the difference between the pre-marriage and the post-marriage scores. It was necessary to find the square root of  $t^2$  to obtain the value of t.

Academic grades. The academic grades were listed by pairs with pre-marriage grades in the first column, and post-marriage grades in the second column. The third column contained the differences between the two conditions for each student. When the second listed score exceeded the first listed score, a negative difference was shown. In the last column, the differences were squared. The summation of each of the columns was computed for use in the formula shown above.

One hypothesis of this study was that there was no true difference in the academic grades of students before

---

<sup>2</sup> Ibid., p. 105.

and after marriage. Using the raw data of academic grades in Table II, the total difference between the two samples was - 28.5; hence the value of  $\bar{t}$  for the distribution of the difference was the following:

$$t^2 = \frac{(n-1) (\sum D)^2}{n \sum D^2 - (\sum D)^2} = \frac{85286.25}{3448.75} = 24.72; t = 4.97$$

If the hypothesis were true, an absolute value of  $\bar{t}$  this large would be found less than one per cent of the time; thus there was a high degree of confidence that the hypothesis was false. Stated differently, there was a significant difference between the means of the two conditions beyond the one per cent level of confidence.

The academic grades of students before marriage were lower than the academic grades of the students after marriage. Therefore, the null hypothesis was rejected in favor of the post-marriage grades of the students tested; thus, it could be stated with confidence that the academic grades for the students after marriage were significantly higher than the academic grades of the same students before marriage in this group.

Extra-curricular activities. Using the raw data concerning the participation in extra-curricular activities found in the Table III, the same procedure was followed in

this analysis as was used for securing t for the study of the academic grades. The formula for both was the same, and the value of t was computed and found to be 4.775 which was significant well beyond the one per cent level of confidence.

One hypothesis of this study was that there was no true difference in the participation in extra-curricular activities of students before and after marriage. This distribution of differences yields a value for t of 4.775 which was significant well beyond the one per cent level of confidence. Since the empirical value of t is higher than the critical value shown, it is concluded that there is less than one chance in one hundred that what has been reported is merely a chance result. There was a significant difference between the two conditions compared. Since the sum of the differences yields a positive figure, the null hypothesis was rejected in favor of the pre-marriage condition; thus, it could be stated with confidence that the participation in extra-curricular activities of the group before marriage was significantly greater than the participation in extra-curricular activities of the same students after marriage in this group.

Semester hours. Again in this area, the raw data for semester hours taken by the students as found in Table IV



was used. The same procedure was followed in the analysis as was used for securing  $\bar{t}$  for academic grades and for participation in extra-curricular activities. The same formula was used, and value of  $\bar{t}$  was computed in the same manner. The value of  $\bar{t}$  was found to be 2.739 which was significant well beyond the one per cent level of confidence.

One hypothesis of this study was that there was no true difference in the number of semester hours taken before and after marriage of the same group of students. This distribution of differences yielded a value for  $\bar{t}$  of 2.739 which was significant well beyond the one per cent level of confidence. Since the empirical value of  $\bar{t}$  is higher than the critical value shown for  $p = .01$ , the null hypothesis was rejected, concluding that there was less than one chance in one hundred that what has been reported was merely a chance result. Thus, it could be stated with confidence that the pre-marriage semester hours taken were significantly greater in number than the post-marriage semester hours taken by this group of students.

CHAPTER V

SUMMARY AND CONCLUSIONS

As a result of The GI Bill of Rights, increased prosperity, and the tendency for young people to marry at an earlier age, there is a continuing trend toward students' marrying while still in college. Surveys have shown that between twenty and twenty-five per cent of the three and one half million college students are married. This involved husbands who were students, with the wife working to support the family, wives who were students and married to older more established husbands, and husbands and wives who were both students doing part-time work or receiving subsidies from their families. The problem of campus marriages is not new, but the effect of these marriages on the institution and on the student has not been sufficiently determined.

There have been many studies made and much research done in almost every area of college marriages, but the trend is still too new to make long term observations. This study was undertaken in an effort to obtain on one college campus, a typical one it is believed, a more accurate comparison of academic grades, participation in extra-curricular activities, and semester hours taken by students before and after marriage.

## I. SUMMARY

The investigator found no previous research or any reference to studies made on or about married students at Catawba College. However, the literature located indicated that there has been considerable research conducted on college marriages throughout the United States.

In this study, the 106 students who married while at Catawba College were compared before and after marriage in three areas: academic grades, participation in extra-curricular activities, and the number of semester hours taken. All data for the comparisons were secured from permanent college records. Two pre-marriage semesters and two post-marriage semesters were compared generally in the three areas studied for a group of the same students.

Academic grades were converted for the study from the alphabetical letter to the equivalent points. Participation in extra-curricular activities was scored by the point system as found in the student hand-book, and the semester hours taken were totaled and averaged for the two semesters before and two semesters after marriage.

In each of the three areas compared in this study, the hypothesis was that no true or significant difference existed between the two conditions of the same group being compared. In order to compare the results statistically,

the single formula which combined all of the steps which are involved in testing the significance of a difference between paired scores was used.

## II. CONCLUSIONS

1. Academic grades. A difference between the conditions of the same students in regard to academic grades was significant well beyond the one per cent level of confidence. The value for  $t$  was computed and found to be 4.97. The value for  $t$  at the .01 level of confidence for a sample the size of this group is 2.625; therefore, it could be stated with confidence that the difference was significant well beyond the one per cent level of confidence. The null hypothesis, which declares that no true difference exists, was rejected in favor of the post-marriage condition of the students in which academic grades were significantly higher than the pre-marriage academic grades of the same group of students.

An increase in academic grades might have been due to the fact that there was added pressure on the part of the married male college student to qualify himself by finishing college more quickly in order to support a family. Another factor which might contribute to an increase in post-marriage academic grades is shown in the decrease in

participation in extra-curricular activities. This indicates that students of both sexes may be spending more hours on the academic phase of college life. Added to the above suggestions is the fact that married students take fewer semester hours of work. This could have a direct bearing on the increased academic grades.

2. Participation in extra-curricular activities. The difference between the extent to which students participated in extra-curricular activities before and after marriage was significant well beyond the one per cent level of confidence. The value for  $t$  was computed and found to be 4.775. The value for  $t$  at the .01 level of confidence for a sample the size of this group is 2.625; therefore, the null hypothesis, which declares that no true difference existed was not accepted. The findings thus indicated that before marriage students participated in the extra-curricular activities studied to a greater extent than did these same students after they were married.

Participation in extra-curricular activities might be decreased after marriage for the reasons as set forth in a preceding paragraph. However, other factors also may influence this situation. First, the added home responsibilities of the married student might have a bearing on the situation. Second, the necessity for the married

student to work at an off-campus job, either full or part-time, would probably decrease his time for these activities. Third, his change of maturity and interest would markedly affect the type of activity in which he would be interested, and upon finding none to his liking he might tend toward lack of participation in any activity.

3. Semester hours. There was a significant difference in the two conditions beyond the one per cent level of confidence. The value for  $t$  was computed and found to be 2.739. The value for  $t$  at the .01 level of confidence for a sample the size of this group is 2.625; therefore, the null hypothesis, which declares no true difference existed, was rejected in favor of the pre-marriage condition. The number of semester hours taken by the students before marriage was significantly greater than the number of semester hours taken by the same group of students after marriage.

In addition to the reasons for a decrease in semester hours taken as set forth in the preceding conclusions, was the fact that, in a great many cases, marriage occurred during the last two years of college; and the requirements in hours for graduation had been previously fulfilled.

Conclusions as to the limitations of the group and the method. The investigator recognized the following limitations of this study:

1. All of the students who were married and were attending Catawba College during the years 1957, 1958, 1959, and 1960 were not included in this study--only those were selected whose records showed a pre-marriage semester and a post-marriage semester for the comparisons. This precluded those who were already married when entering college as well as those who were married in the last semester of their college work.

2. No reference was made in the study as to the length of time each student was married; this factor might have influenced the findings in all three areas.

3. There was no way to determine the off-campus work load of the students. The extent to which students did outside work for compensation might have had a bearing on grades, participation in extra-curricular activities, and the number of semester hours of college work taken.

4. There was no way to determine the extent of household responsibilities of married students in the group. These responsibilities could have influenced the results.

5. Summer school attendance was not used because of the inconsistency with which the students in the group attended.

However, attendance in the summer session might have affected the number of semester hours taken by the student in the academic year.

In attempting to draw any general conclusions, the investigator recognized certain limitations. Although Catawba College is thought to be a typical institution of its kind, the following facts might have had an influence on the findings, first, its coeducational status, and second, its location in a thickly populated area of North Carolina. The data collection was made for a particular four year period and might have influenced the findings. Therefore, the conclusions cannot be applied to students in general who marry while in college nor to any other specific situation.

Conclusions as to recommendations for further research. The limitations of this study suggest that further research is needed to provide a better understanding of the needs of the married college student, and of the problems encountered by college administrators. Suggestions are made as follows:

1. The same type of study should be made in different types of colleges, for example in a woman's college, in a man's college, and in a large state operated university.

2. A study should be undertaken which would compare matched pairs of students at the same level of ability, who



were married and unmarried.

3. A more intensive study which could include more of the individual case histories of the students before and after marriage would reveal factors which were not evident in a statistical treatment.

4. In the present study no reference was made to intelligence ratings. It might be fruitful if an investigation were undertaken which would utilize intelligence as a factor or hold this factor constant.

5. A more intensive study of the content and changes in participation in extra-curricular activities before and after marriage could offer guidance to college administrators in planning such programs.

9 Jan '61

BIBLIOGRAPHY

## BIBLIOGRAPHY

## A. BOOKS

Bernard, Jessie, Helen E. Buchanan and William M. Smith, Jr., Dating, Mating, and Marriage. Cleveland: Howard Allen, Inc., 1958. 217 pp.

Bowman, Henry A., Marriage for Moderns. New York: McGraw-Hill Book Company, Inc., 1960. 481 pp.

Cavan, Ruth Shonle, Marriage and Family in the Modern World. New York: Thomas Y. Crowell Company, 1960. 261 pp.

Cavan, Ruth Shonle, American Marriage. New York: Thomas Y. Crowell Company, 1959. 221 pp.

Diamond, Solomon, Information and Error. New York: Basic Books, Inc., 1959.

Landis, Judson T., and Mary G. Landis, Building a Successful Marriage. Englewood Cliffs: Prentice Hall, Inc., 1958. 179 pp.

Landis, Paul H., Making the Most of Marriage. New York: Appleton-Century Crofts, Inc., 1955. 200-2 pp.

## B. PERIODICALS

Bossard, James H. S. and Eleanor Stoker Boll, "Campus Marriages--For Better or for Worse," The New York Times Magazine, April 5, 1959, p.59.

Carbine, Patricia, "More Married Students," Look, 23:125, October 27, 1959.

Dunbar, Ruth, "Experts Like Trend to Early Marriages," Science Digest, 40:22, October, 1956.

Havemann, Ernest, "To Love, Honor, Obey...And Study," Life, 38:152-56, May 23, 1955.

Jensen, V. H. and M. H. Clark, "Married and Unmarried Students: Achievement, Ability, and Personality," Personnel and Guidance Journal. 37:123-25, October, 1958.

- Kirkendall, Lester A., "School Bells and Wedding Chimes," National Parent Teacher, 49:8-10, March, 1955.
- Marchand, Jean, and Louise Langford, "Adjustments of Married Students," Journal of Home Economics, 44:113-14, February, 1952.
- Morton, Richard K., "College Training and the Married Student," Association of American Colleges Bulletin, 44:624-27, December, 1958.
- Mueller, Kate Hevner, "The Married Student on the Campus," College and University, Vol. 35, No. 2, Winter, 1960.
- Pope, Elizabeth, "Why Do They Marry?" Good Housekeeping, 148:59, May, 1959.
- Reimer, Suend, "Marriage on the Campus of the University of Washington," American Sociological Review, 7:810-15, December, 1942.
- Rogers, Everett M., "The Effect of Campus Marriage on Participation in College Life," College and University, Vol. 33, No. 2:193-99, Winter, 1958.
- "The Married Student," Newsweek, 49:50, March 4, 1957.

29 Jan '61

APPENDIX

TABLE II

MEAN ACADEMIC GRADES OF STUDENTS  
BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
1.	3.35	3.92	-.57	.3249
2.	2.90	3.00	-.10	.0100
3.	3.10	3.40	-.30	.0900
4.	2.00	2.35	-.35	.1225
5.	2.97	3.20	-.23	.0529
6.	2.70	2.55	.15	.0225
7.	3.30	3.75	-.45	.2025
8.	3.70	3.48	.22	.0484
9.	2.70	2.10	.60	.3600
10.	1.47	3.70	-2.23	4.9729
11.	2.68	3.00	-.32	.1024
12.	3.76	3.61	.15	.0225
13.	3.08	3.00	.08	.0064
14.	3.50	3.90	-.40	.1600
15.	1.85	2.73	-.88	.7744
16.	3.58	3.60	-.02	.0004
17.	3.08	3.33	-.25	.0625
18.	3.33	3.67	-.34	.1156
19.	3.73	3.40	.33	.1089
20.	3.00	3.33	-.33	.1089
21.	3.10	3.10	0	0
22.	2.66	2.93	-.27	.0729
23.	2.64	2.21	.43	.1849
24.	1.50	3.00	-1.50	2.2500
25.	3.85	4.00	-.15	.0225
26.	2.42	2.75	-.33	.1089
27.	3.01	3.82	-.81	.6561
28.	3.21	3.04	.17	.0289
29.	2.28	3.08	-.80	.6400
30.	2.67	2.98	-.31	.0961
31.	2.42	2.50	-.08	.0064
32.	2.41	2.80	-.39	.1521
33.	3.80	3.25	.55	.3025
34.	3.37	3.20	.17	.0289
35.	.60	2.30	-1.70	2.8900
36.	1.66	2.68	-1.02	1.0404
37.	2.80	2.71	.09	.0081

TABLE II (continued)

MEAN ACADEMIC GRADES OF STUDENTS  
BEFORE AND AFTER MARRIAGE

student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
38.	3.58	3.78	- .20	.0400
39.	3.16	3.30	- .14	.0196
40.	2.24	3.10	- .86	.7396
41.	3.14	2.88	.26	.0676
42.	2.72	3.24	- .52	.2704
43.	3.72	2.98	.74	.5476
44.	2.14	2.67	- .53	.2809
45.	2.47	2.70	- .23	.0529
46.	3.17	3.55	- .38	.1444
47.	2.49	2.90	- .41	.1681
48.	1.99	2.78	- .79	.6241
49.	2.46	2.80	- .34	.1156
50.	3.55	3.50	.05	.0025
51.	2.07	2.80	- .73	.5329
52.	2.55	2.45	.10	.0100
53.	2.11	2.80	- .69	.4761
54.	3.13	3.67	- .54	.2916
55.	3.83	3.80	.03	.0009
56.	2.72	3.30	- .58	.3364
57.	2.62	3.50	- .88	.7744
58.	3.50	3.50	.00	0
59.	2.40	3.00	- .60	.3600
60.	2.68	2.70	- .02	.0004
61.	2.58	2.42	.16	.0256
62.	2.40	2.80	- .40	.1600
63.	2.01	2.99	- .98	.9604
64.	2.25	3.20	- .95	.9025
65.	3.81	3.60	.21	.0441
66.	2.39	2.90	- .51	.2601
67.	2.42	3.23	- .81	.6561
68.	2.93	3.18	- .25	.0625
69.	2.68	3.10	- .42	.1764
70.	3.25	3.50	- .25	.0625

TABLE II (continued)

MEAN ACADEMIC GRADES OF STUDENTS  
BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
71.	2.42	4.00	-1.58	2.4964
72.	2.16	3.33	-1.17	1.3689
73.	1.44	3.10	-1.66	2.7556
74.	3.23	3.40	.17	.289
75.	3.80	4.00	-.20	.0400
76.	3.25	3.77	-.52	.2704
77.	3.33	3.31	.02	.0004
78.	2.23	2.45	-.12	.0144
79.	2.75	2.40	.35	.1225
80.	1.83	2.91	-1.08	1.1664
81.	2.49	2.00	.49	.2401
82.	3.20	2.83	.37	.1369
83.	2.45	2.28	.17	.0289
84.	2.47	1.66	.81	.6561
85.	2.33	3.00	-.67	.4489
86.	2.41	2.80	-.39	.1521
87.	3.50	3.24	.26	.0676
88.	1.60	3.07	-1.47	2.1609
89.	2.44	2.30	.14	.0196
90.	3.10	3.50	.40	.0600
91.	1.73	2.69	-.96	.9216
92.	3.40	2.61	.79	.6241
93.	2.08	2.12	-.04	.0016
94.	1.99	1.78	.21	.0441
95.	3.11	3.92	-.81	.6561
96.	2.58	2.60	-.02	.0004
97.	3.33	3.70	-.37	.1369
98.	3.17	3.10	.07	.0049
99.	3.43	3.02	.41	.1681
100.	3.24	2.99	.25	.0625
101.	2.49	2.53	-.04	.0016
102.	3.16	2.80	.36	.1296
103.	1.92	1.41	.51	.2601
104.	2.50	2.50	.00	0
105.	2.99	3.00	-.01	.0001
106.	2.58	2.60	-.02	.0004



TABLE II (continued)

MEAN ACADEMIC GRADES OF STUDENTS  
BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
71.	2.42	4.00	-1.58	2.4964
72.	2.16	3.33	-1.17	1.3689
73.	1.44	3.10	-1.66	2.7556
74.	3.83	3.40	.43	.1849
75.	3.80	4.00	-.20	.0400
76.	3.25	3.77	-.52	.2704
77.	3.33	3.31	.02	.0004
78.	2.23	2.45	-.12	.0144
79.	2.75	2.40	.35	.1225
80.	1.83	2.91	-1.08	1.1664
81.	2.49	2.00	.49	.2401
82.	3.20	2.83	.37	.1369
83.	2.45	2.28	.17	.0289
84.	2.47	1.66	.81	.6561
85.	2.33	3.00	-.67	.4489
86.	2.41	2.80	-.39	.1521
87.	3.50	3.24	.26	.0676
88.	1.60	3.07	-1.47	2.1609
89.	2.44	2.30	.14	.0196
90.	3.10	3.50	.40	.0600
91.	1.73	2.69	-.96	.9216
92.	3.40	2.61	.79	.6241
93.	2.08	2.12	-.04	.0016
94.	1.99	1.78	.21	.0441
95.	3.11	3.92	-.81	.6561
96.	2.58	2.60	-.02	.0004
97.	3.33	3.70	-.37	.1369
98.	3.17	3.10	.07	.0049
99.	3.43	3.02	.41	.1681
100.	3.24	2.99	.25	.0625
101.	2.49	2.53	-.04	.0016
102.	3.16	2.80	.36	.1296
103.	1.92	1.41	.51	.2601
104.	2.50	2.50	.00	0
105.	2.99	3.00	-.01	.0001
106.	2.58	2.60	-.02	.0004

TABLE III

MEAN EXTRA-CURRICULAR ACTIVITIES POINTS  
FOR STUDENTS BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
1.	3	5	- 2	4
2.	13	2	11	121
3.	12	4	8	64
4.	1	1	0	0
5.	5	3	2	4
6.	10	5	5	25
7.	2	2	0	0
8.	10	2	8	64
9.	26	1	25	625
10.	16	1	15	225
11.	13	0	13	169
12.	27	33	- 6	36
13.	30	8	22	484
14.	35	1	35	1225
15.	8	3	5	25
16.	30	0	30	900
17.	1	1	0	0
18.	0	0	0	0
19.	16	16	0	0
20.	3	3	0	0
21.	9	4	5	25
22.	4	1	3	9
23.	4	0	4	16
24.	17	0	17	289
25.	2	3	- 1	1
26.	6	5	1	1
27.	6	2	4	16
28.	21	0	21	441
29.	0	2	- 2	4
30.	41	14	27	729
31.	12	2	10	100
32.	33	5	28	784
33.	21	21	0	0
34.	11	5	6	36
35.	0	0	0	0
36.	14	8	6	36

TABLE III (continued)

MEAN EXTRA-CURRICULAR ACTIVITIES POINTS  
FOR STUDENTS BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
37.	0	0	0	0
38.	4	0	4	16
39.	40	20	20	400
40.	12	3	9	81
41.	7	10	-3	9
42.	0	0	0	0
43.	21	13	8	64
44.	0	2	-2	4
45.	23	28	-5	25
46.	0	2	-2	4
47.	3	3	0	0
48.	0	48	-48	2304
49.	0	2	-2	4
50.	54	8	46	2116
51.	0	0	0	0
52.	0	0	0	0
53.	1	2	-1	1
54.	1	7	-6	36
55.	9	2	7	49
56.	1	1	0	0
57.	5	1	4	16
58.	10	12	-2	4
59.	15	4	11	121
60.	13	5	8	64
61.	0	0	0	0
62.	3	1	2	4
63.	0	0	0	0
64.	36	12	24	576
65.	36	5	31	961
66.	6	0	6	36
67.	3	4	-1	1
68.	0	1	-1	1
69.	7	7	0	0
70.	13	4	9	81

TABLE III (continued)

MEAN EXTRA-CURRICULAR ACTIVITIES POINTS  
FOR STUDENTS BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
71.	11	4	7	49
72.	0	2	- 2	4
73.	1	0	1	1
74.	4	4	0	0
75.	31	30	1	1
76.	7	8	- 1	1
77.	4	12	- 8	64
78.	20	3	17	289
79.	0	0	0	0
80.	10	5	5	25
81.	26	2	24	576
82.	0	0	0	0
83.	1	0	1	1
84.	18	4	14	196
85.	30	13	17	289
86.	37	5	32	1024
87.	6	3	3	9
88.	0	0	0	0
89.	16	14	2	4
90.	10	3	7	49
91.	8	8	0	0
92.	0	0	0	0
93.	0	2	- 2	4
94.	26	26	0	0
95.	0	0	0	0
96.	23	21	2	2
97.	4	15	-11	121
98.	3	4	- 1	1
99.	13	5	8	64
100.	10	6	4	16
101.	3	13	-10	100
102.	21	7	14	196
103.	22	22	0	0
104.	13	11	2	4
105.	35	13	22	484
106.	29	13	16	256

TABLE IV

MEAN SEMESTER HOURS OF STUDENTS  
BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
1.	20.5	18.0	2.5	6.25
2.	15.0	15.0	0	0
3.	15.5	15.0	.5	.25
4.	19.0	17.5	1.5	2.25
5.	17.0	18.5	-1.5	2.25
6.	16.0	16.0	0	0
7.	16.0	18.0	-2.0	4.00
8.	15.0	16.5	-1.5	2.25
9.	16.0	16.0	0	0
10.	14.0	18.5	-4.5	20.25
11.	21.0	18.0	3.0	9.00
12.	19.0	19.0	0	0
13.	18.5	17.5	1.0	1.00
14.	18.5	16.0	2.5	6.25
15.	16.5	16.5	0	0
16.	17.0	15.0	2.0	4.00
17.	16.5	16.5	0	0
18.	17.0	18.0	-1.0	1.00
19.	16.5	15.0	1.5	2.25
20.	15.5	19.5	-4.0	16.00
21.	15.0	15.0	0	0
22.	18.5	17.0	1.5	2.25
23.	17.5	19.0	-1.5	2.25
24.	15.0	15.5	-.5	.25
25.	18.5	15.0	3.5	12.25
26.	22.5	17.5	5.0	25.00
27.	15.5	16.5	-1.0	1.00
28.	20.0	21.0	-1.0	1.00
29.	13.5	18.0	-4.5	20.25
30.	16.5	16.0	.5	.25
31.	18.0	16.0	2.0	4.00
32.	15.5	17.0	-1.5	2.25
33.	15.0	15.0	0	0
34.	16.5	18.0	-1.5	2.25
35.	15.0	15.0	0	0
36.	16.5	15.0	1.5	2.25

TABLE IV (continued)

MEAN SEMESTER HOURS OF STUDENTS  
BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
37.	16.5	12.0	4.5	20.25
38.	18.5	20.5	-2.0	4.00
39.	17.5	15.0	2.5	6.25
40.	16.5	15.0	1.5	2.25
41.	20.5	16.5	4.0	16.00
42.	18.5	18.5	0	0
43.	17.5	16.5	1.0	1.00
44.	11.5	17.5	-6.0	36.00
45.	18.0	15.0	3.0	9.00
46.	17.0	19.0	-2.0	4.00
47.	16.5	15.0	1.5	2.25
48.	18.0	15.5	2.5	6.25
49.	17.0	15.0	2.0	4.00
50.	17.5	15.5	2.0	4.00
51.	18.5	16.0	2.5	6.25
52.	14.0	15.0	-1.0	1.00
53.	18.0	15.0	3.0	9.00
54.	18.5	19.0	-.5	.25
55.	18.0	16.0	2.0	4.00
56.	16.0	16.0	0	0
57.	18.0	16.0	2.0	4.00
58.	18.0	16.5	1.5	2.25
59.	15.0	15.0	0	0
60.	19.0	16.0	3.0	9.00
61.	16.5	16.5	0	0
62.	15.0	16.0	-1.0	1.00
63.	17.0	19.0	-2.0	4.00
64.	16.5	16.0	.5	.25
65.	16.0	18.0	-2.0	4.00
66.	18.5	15.0	3.5	12.25
67.	16.5	15.0	1.5	2.25
68.	16.0	16.5	-1.5	.25
69.	17.5	15.5	2.0	4.00
70.	16.5	16.0	.5	.25

TABLE IV (continued)

MEAN SEMESTER HOURS OF STUDENTS  
BEFORE AND AFTER MARRIAGE

Student	Pre-marriage	Post-marriage	Difference	D <sup>2</sup>
71.	18.5	17.0	1.5	2.25
72.	15.5	18.0	-2.5	6.25
73.	20.0	15.5	4.5	20.25
74.	16.5	16.5	0	0
75.	15.0	15.0	0	0
76.	18.5	18.0	.5	.25
77.	16.5	18.5	-3.0	9.00
78.	18.5	15.0	3.5	12.25
79.	16.5	15.0	1.5	2.25
80.	14.0	17.5	-3.5	12.25
81.	18.5	16.0	2.5	6.25
82.	17.0	19.0	-2.0	4.00
83.	17.5	18.0	-.5	.25
84.	17.5	18.0	-.5	.25
85.	18.5	15.0	3.5	12.25
86.	16.5	15.0	1.5	2.25
87.	16.5	17.5	-1.0	1.00
88.	19.0	16.5	2.5	6.25
89.	19.5	17.0	2.5	6.25
90.	16.0	18.0	-2.0	4.00
91.	18.5	18.5	0	0
92.	16.5	19.0	-2.5	6.25
93.	17.5	16.5	1.0	1.00
94.	17.5	18.0	-.5	.25
95.	19.5	17.5	2.0	4.00
96.	17.5	16.0	1.5	2.25
97.	18.5	16.0	2.5	6.25
98.	16.5	15.0	1.5	2.25
99.	18.0	17.5	.5	.25
100.	18.5	17.0	1.5	2.25
101.	16.5	16.0	.5	.25
102.	17.0	15.0	2.0	4.00
103.	17.5	16.0	1.0	1.00
104.	16.5	15.0	1.5	2.25
105.	17.5	15.0	2.5	6.25
106.	17.5	16.0	1.5	2.25