

CHARACTERISTICS OF HIGH SCHOOL GIRLS WHICH
MAY LEAD TO EARLY MARRIAGE

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CHARACTERISTICS OF HIGH SCHOOL GIRLS WHICH
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CHAPTER I

INTRODUCTION

The increasing frequency of high school marriages is of major concern to high school teachers, counselors, and administrators. The marriage of high school students has long been the concern of parents, sociologists, and educators, as these marriages have increased in number with every decade since the beginning of American census-taking (13). Good reasons exist for this concern over these early marriages. A series of studies of age at first marriage show without exception a higher divorce rate and a lower happiness rate among people who married in their teens than those who married in later years (13). The fact that 93 per cent of the high school marriages end in divorce within five years supports the opinion of many social workers and educators that teen-age marriages are undesirable (8).

For several years the concern over these early marriages was directed toward the teen-age spouse's lack of preparation for the adult role; however, school personnel

now feel an added concern for those students who choose to remain in school after marriage.

The increase in the number of high school marriages has given rise to a considerable apprehension by educators, as to the influence of these marriages on the student body, the program of work, and the school policy towards the married students who remain in school. The concern is evidenced by the growing body of popular and technical literature on the subjects. The greater part of this literature is concerned with the rate of increase in high school marriages, the sociological significance of these early marriages, the policies for dealing with those married students who remain in high school, and the school's responsibility to the married students.

Sociologists have long recognized that many early marriages are motivated by an urge to escape from problems at home or at school (12). The dearth of empirical studies, particularly those concerned with the causes of high school marriages, and the lack of agreement between those studies which have been made on the subject, suggest a need for studies which would help in the early identification of the student who might become a teen-age spouse and which

would enable the counselor and the other school personnel to guide those students into other interests and away from an early marriage.

Statement of the Problem

The problem of this study was to isolate some of the characteristics of tenth-grade girls which may lead to early marriage. The characteristics studied were: sibling rank, influence of a broken home, parents' education and occupations, mental ability, aptitude, scholastic achievement, study habits and attitudes, and personal problems identified by the subjects. A further problem of the study was the effectiveness of each of the characteristics in predicting the marriage of high school girls. The problem was divided into the following subproblems:

1. To determine the difference between the means of single and married girls on sibling position, number of broken homes, mental ability score, study habits and attitude scores, achievement test scores, aptitude scores, and grade-point average;
2. To determine the difference between the single and married girls on number of years their parents attended school, occupational scores of the subjects' parents, and

the number of problems indicated on the Mooney Problem Check List.

Hypotheses

It was proposed that this study test the following hypotheses:

1. The sibling rank will be significantly less for the girls who married early when compared to that of the girls who remained single through school;

2. The number of broken homes will be less for the girls who remained single through high school when compared to that of the girls who married early;

3. The mean mental ability score as measured by the Otis Quick-Scoring Mental Ability Test will be less for the girls who married early when compared to that of the girls who were unmarried through high school;

4. The mean score of the study habits and attitudes as measured by Brown and Holtzman's Survey of Study Habits and Attitudes will be less for the girls who married early when compared to that of the girls who remained single through high school;

5. The mean achievement scores as measured by the Iowa Test of Educational Development will be less for the

students who married early when compared to that of the students who remained single through high school;

6. The mean aptitude scores as measured by the Differential Aptitude Tests will be less for the girls who married early when compared to that of the girls who were unmarried through high school;

7. The number of years in school will be less for the parents of the girls who married early when compared to that of the girls who remained single through high school;

8. The occupational score of the fathers of the single students will be less than that of the fathers of the married students;

9. For the girls who remained single through high school, there were fewer employed mothers than for the girls who married early;

10. The mean of the junior high school grade-point averages will be less for the married students than for the single students.

Basic Assumptions

This study was based on the following assumptions:

1. High school students recognize and will identify their problems of adjustment;
2. General information concerning age, sex, classification, and other items on the questionnaires were given and recorded correctly;
3. The subjects marked all tests honestly;
4. The subjects selected for the study were a representative sample of students in the public schools of Northwest Texas.

Significance of the Study

Since the number of high school marriages has increased rapidly since 1940, many new problems have resulted and now confront an increasing number of school systems and educators (13).

In recent years, a number of surveys have been made to determine the status of high school marriages. Many of these surveys support the finding that the rate of marriage in high school is increasing. For example, Kirkendall reported that a national survey made in 1955 found that 3 per cent of all students in grades ten through twelve were married (12).

In 1961, the Bureau of Census reported that 5.1 per cent of all high school girls in the United States were married (6).

Other studies concerned with marriage in the high school found a growing tendency for the young married students to remain in high school after marriage. In 1953, Ivins found that student marriages occurred in New Mexico high schools in sufficient numbers to constitute a problem and that 118 of the 378 married subjects remained in school (10). In a follow-up study made five years later, he reported that "a slightly higher proportion of the married girls were staying in school at that time" (11). In 1956, Landis made a study of marriage in the high schools of California and reported that 90 per cent of the state's high schools had married students on their rolls (13). Speery found 81.6 per cent of North Carolina's 631 high schools had one or more married students attending school in 1957 and 1958 (17). Turner made a similar survey of Missouri's secondary schools from September, 1958, through June, 1961, and found 48.8 per cent of the 512 schools of the state had problems with married students (19).

The married student who remains in high school has helped to create a number of problems. Landis reported

that the married students were irregular in attendance, had a high drop-out rate, and seemed to encourage other students to marry (13). Taulbee reported that the married students, as considered by the reporting principals, were detrimental to school and student body (18).

The selection of this problem was the result of a concern for the possible lessening of potential civic usefulness, economic security, happiness, and personal success of high school students who marry without preparation for the adult role.

Another factor prompting this study was the lack of concern about the increased number of high school marriages on the part of high school personnel workers as indicated by the dearth of statistical study on the subject. This lack of concern is evidenced by the fact that most of the studies which have been made on the subject of early marriage were made by homemaking teachers and sociologists. Many of these studies point to the need for a more active concern on the part of the guidance staff. Hanson suggested that more counseling and guidance might help to lower the rate of high school marriages (8).

Kirkendall stated a "good guidance program becomes increasingly important in meeting these problems" (12).

Ivins also pointed to the need for "enlightening counseling and group guidance" and concludes that "as long as schools continue to deplore, wring their hands, encourage the earliest possible departure of the students who marry, may we expect the marriage of students to be seen as a persistently annoying problem" (11).

The study was of value in that it: (1) revealed the problems of sophomore girls upon their entering high school in each of the eleven areas of the Mooney Problem Check List; (2) made possible conclusions which would enable the counselor, faculty, and administration to work more intelligently with the problems of high school students; (3) provided a basis for improving the guidance program so that it would better meet the needs of the student; (4) should promote more research on the causes of early marriages; and (5) should increase interest in and understanding of problems of tenth-grade girls.

Limitations of the Study

This study was limited to 150 girls, 75 of whom were married before they were graduated from high school, who were enrolled in grade 10, 11, or 12 of a Northwest Texas high school between September, 1956, and June, 1964.

This study was further limited to the factors selected as characteristics and to the degree to which the instruments for measuring each factor were valid.

Characteristics of the Subjects

Because only seventeen boys from the population were married during the period covered by this study, no boys were used as subjects. The subjects were taken from girls who were enrolled in a rural high school in grades 10, 11, and 12 between September, 1956, and June, 1964.

The subjects ranged from fifteen to nineteen years of age; therefore, none of them were greatly retarded or accelerated as to their scholastic classification. The range of their IQ's was from 92 to 127 with a median IQ of 111. The ethnic background of the subjects was divided between Anglo-Americans, about 97 per cent, and Latin-Americans, about 3 per cent. The subjects were taken from a rural population, most of whom were economically dependent upon agriculture, oil, or ranching, but living within easy driving distance of two large urban communities which offered a wide range of educational, cultural, and occupational opportunities.

Of the 150 subjects used in the present study, 75 were married before graduation from high school; these were used as the married group. The other group consisted of 75 girls who were drawn by a stratified random sampling from the single girls of the population. In order for both groups to come as nearly as possible from the same school and community influences, each single subject drawn was a classmate of a married subject. No single subjects were used or needed from the 1964 eleventh grade or from the 1964 or 1963 tenth grades. Single students in these classes would not have been used as subjects in any case as there was no way of knowing that they would have remained single until after their graduation.

The school supplying the subjects had a record of slow but continuous increase in the number of high-school marriages and the number of married students who wanted to remain in school until they were graduated from high school. The increase in the number of early marriages and the number of enrolled married students is presented in Table I, shown on the following page.

TABLE I

INCREASE IN NUMBER OF EARLY MARRIAGES, NUMBER OF MARRIED SUBJECTS ENROLLED, AND NUMBER OF MARRIED GRADUATES DURING TWO 9-YEAR PERIODS

Period	School Enrollment		Married Girl Students		Married Girl Graduates	
	Total	Girls	No.	Per Cent	No.	Per Cent
1948-1955	1,304	738	39	05.2	13	33.3
1956-1964	1,466	755	85	11.3	22	25.8

It can be seen in Table I that the number of students who married during the nine-year period from 1956 to 1964 was more than double the number who married during the nine-year period from 1948 to 1955. Although the number of married students who graduated increased also, this gain was not as large as that of the number of marriages. The gain in either or both cases may have been influenced somewhat by the fact that seventeen more girls were enrolled in the second period than in the first period. The number of married graduates may have been reduced during the last of the 1956-1964 period because of a policy made effective in September, 1961, by the Board of Education, which stipulated that married students who remained in school would do so without participation in extra-curricular activities.

On the other hand, there was an increase in the number of secret marriages, which were announced at or about graduation without the pressures of premarital pregnancy. The delayed announcements allowed the married students to enjoy all activities and privileges denied married students by the restrictions of the Board of Education.

The distribution of the married girls over the years covered by the study is shown in Table II.

TABLE II
NUMBER OF EARLY MARRIAGES DURING EACH YEAR OF THE
NINE-YEAR PERIOD, 1956-1964

Year	No. of Marriages	Year	No. of Marriages
1956	10	1961*	7
1957	8	1962	8
1958	9	1963	6
1959	9	1964	9
1960	9	..	.
Totals	45		30

Total No. of Marriages 85**

*Year restrictive policy became effective.

**There was a total of 85 high school girls who married from 1956 to 1964; 10 of them, however, lacked complete records and could not be used as subjects.

That forty-five of the early marriages occurred from September, 1956, through June, 1961, and that forty occurred from September, 1961, through June, 1964, are shown in Table II. The distribution does not agree with Burchinal (5), who concluded that restrictive policies are not successful in preventing or even curtailing high school marriages.

The high school girls who married in grades 10, 11, and 12 ranged in number from twenty-six to thirty-one, but the married girls who remained in school in grades 10, 11, and 12 ranged in number from four to thirteen. These distributions are shown in Table III.

TABLE III

SUBJECTS WHO MARRIED IN GRADES 10, 11, 12; MARRIED
SUBJECTS ENROLLED IN GRADES 10, 11, 12;
AND MARRIED SUBJECTS DROPPED

Number	Grades			Total
	10	11	12	
Married	26	28	31	85
In School	4	7	13	24
Later Dropped	2	0	0	2

As shown in Table III, the married students were fairly evenly distributed in the grades 10, 11, and 12. Although eighty-five high-school girls married from 1956 to 1964, ten of them lacked complete records and, therefore, could not be used as subjects. Only two of the subjects who remained in attendance after marriage later dropped out as compared to forty-one who withdrew before or immediately after marriage. The forty-one drop-outs include several girls who married during summer vacation and moved to the place of their husbands' out-of-town employment or college enrollment. Some of these subsequently graduated from high school, but were not included in the analysis because they did not graduate with their respective classes.

Sources of Data

The sources of information from which the data of this study were taken were the subjects' permanent record cards and the school's guidance files. Junior high school grade-point averages, age, grade, sex, and dates of enrollment, drop-out, or graduation were taken from the permanent record cards. The sibling rank, status of the home, parents' education and occupation, test scores, and other

personal data came from the guidance files. The testing program records used included the subject's Mooney Problem Check List (14) and the scores from Otis Quick-Scoring Mental Ability Test (16), the Differential Aptitude Tests (2), the Iowa Tests of Educational Development (9), and the Survey of Study Habits and Attitudes (4). Other information from the guidance files came from the subjects' personal data sheets (see Appendix). These instruments were administered to all entering tenth-grade students, under normal testing conditions in class-sized groups.

Description of the Instruments

The instruments used in this investigation are the Otis Quick-Scoring Mental Ability Test, Gamma Form; the Iowa Tests of Educational Development; the Differential Aptitude Tests; the Mooney Problem Check List, Form H; and the Survey of Study Habits and Attitudes.

The Otis Quick-Scoring Mental Ability Test is a group test which measures mental ability in terms of IQ. This test requires little time for administration and scoring. The test combines verbal with non-verbal reasoning items to obtain a quick measure of general ability. The IQ on the Otis tests tends to be lower than that of other tests

which measure intelligence; however, the predictive validities against school achievement compares favorably with other intelligence tests (7).

The Iowa Tests of Educational Development is a general achievement test with eight subtests in the battery. The battery of eight tests is designed to measure general educational development in skills and thinking abilities, regardless of particular courses or content studies. Scores include background in social studies, background in natural science, correct writing, quantitative thinking, reading natural science, social studies, and literature, and use of the library. The battery predicts college grades with validity near .60. "Secure" versions of ITED are used in scholarship competitions, and in the American College Testing Program, which obtains information on high school seniors for use by college admission officers (7).

The Differential Aptitude Tests were developed principally for use in educational and vocational counseling of high school students. The tenth-grade DAT scores may be used in a formula to make a rough prediction of the subject's Scholastic Aptitude Test scores. The DAT yields the following scores: verbal reasoning, mechanical reasoning,

abstract reasoning, numerical ability, space relations, language usage, and clerical speed and accuracy (7).

The Mooney Problem Check List, Form H, is of considerable value to counselors because it draws attention to specific concerns the client is ready to talk about and wants help with. It is, in effect, a preliminary interview rather than a test because it was designed to enable the subject to state his problems by underlining or circling relevant items, both for his clarification and as an aid to the counselor. The check list has 330 items divided into eleven problem areas: morals and religion, finances and living conditions, adjustment to school work, social relations, and similar problems. High scores on this check list identify those who should receive counseling, and the items checked provide a basis for individual or group discussion (7).

The Survey of Study Habits and Attitudes consists of seventy-five items of study behavior and attitudes. About half of the seventy-five items are keyed. The marks which show through the holes in the counseling key are those item responses which differ from those given by students of high scholastic achievement (3). Both the total score and the

item responses are useful in counseling and in how-to-study courses (3).

These standardized instruments indicate what the subject can do, where she can do best, what she has done, and some of her attitudes, habits, and problems. When these instruments were used with the junior high school grade-point average, the socio-psychological and the socio-economic backgrounds, and personal data about the subjects, it was hoped that some of the identifying characteristics of the potential high-school bride would be isolated.

Definition of Terms

For the purpose of the study, the following definitions of terms were used.

Early marriage was used for any marriage occurring before the bride was graduated from high school.

Sibling rank was used for the subject's birth order among his brothers and sisters. Four sibling positions were used in this investigation. They were identified by number as first-born, 1; interior-born, any child who was between the oldest and the youngest, 2; last-born, 3; and only-child, 4.

Broken home was used to refer to any home where either parent was permanently absent whether from death, separation, or divorce.

Study habits and attitudes were defined as a measure of study methods, motivation for studying, and certain attitudes toward scholastic activities important in the classroom according to the Brown-Holtzman Survey of Study Habits and Attitudes.

Scholastic achievement was used to mean the subject's command of school subjects as measured by the Iowa Tests of Educational Development.

Aptitude was defined as the student's potentialities for success as measured by the Differential Aptitude Tests.

Problem was the term used for those items on the Mooney Problem Check List, Form H, 1950 Revision, which were identified by the subjects as problems with which they were aware or concerned.

The following abbreviations were used to designate the problem areas of the Mooney Problem Check Lists:

HPD Health and Physical Development

FLE Finance, Living Conditions, and Employment

SRA Social-Recreational Activities

SPR Social-Psychological Relations

PPR Personal-Psychological Relations
CSM Courtship, Sex, and Marriage
HF Home and Family
MR Morals and Religion
ASW Adjustment to Social Work
FVE The Future: Vocational and Educational
CTP Curriculum and Teaching Procedures

Baer and Roeber's occupational scale (1) divided occupations as to training, income, and prestige in the society into the following classes:

1. Professional
2. Managerial
3. Sales, Clerical, and Government Workers
4. Skilled Laborers
5. Semi-skilled Laborers
6. Unskilled Laborers

The number of each class was used to identify the parents' occupations.

The subtests of the Iowa Tests of Educational Development (ITED) will be identified by the following abbreviations:

BSS Background in Social Studies

BNS Background in Natural Science

CW Correct Writing

QT Quantitative Thinking

RSS Reading Social Studies

RNS Reading Natural Science

RL Reading Literature

GV General Vocabulary

COM Composite Score

US Use of Sources

The following abbreviations will be used to identify the subtests of the Differential Aptitude Tests (DAT):

VR Verbal Reasoning

NA Numerical Ability

AR Abstract Reasoning

SR Space Relations

MR Mechanical Reasoning

CSA Clerical Speed and Accuracy

SF Spelling

SEN Sentences

Methods and Procedures

The purpose of this study was to isolate some of the characteristics of high-school girls which may lead to early

marriage, and to investigate the effectiveness of these characteristics in predicting early marriage. The isolation of these characteristics was accomplished by comparing a group of single high-school girls with a group of married high-school girls on the basis of fifteen variables. Tabulation of the results of computation for the statistical significance of each variable indicated the effectiveness of the variables as a predictor of early marriage.

As all of the fifteen variables were not adapted to the use of a single statistical method, the analysis was divided into four steps. An International Business Machine (IBM) computer was used for all computations.

The first step in the analysis of the data involved comparisons between the two groups on the basis of certain socio-psychological and socio-economic factors: sibling rank, status of home, parents' occupation, and parents' education. The statistical method used in this phase of the analysis was the chi-square test for significance of difference.

The method used for the second step in the analysis of the data was Fisher's t test for significance of difference between means. In this part of the analysis, the two

groups were compared as to grade-point average, mental ability, aptitude, scholastic achievement, study habits and attitudes, and the number of personal problems identified by the subjects.

The third phase of the analysis involved comparing the two groups as (1) to changes between the number of problems identified on the first marking, made in grade 10, and later markings made in grades 11 or 12, of the Mooney Problem Check List and (2) the particular items and areas of difficulty marked on the Survey of Study Habits and Attitudes in grade 10.

The last part of the analysis of the data was to compare the married group and the single group as to other related information from the subjects' Personal Data Sheets.

From the collected data, IBM tabulating procedures were utilized for the necessary statistical computations. The data were treated as follows:

1. Total enrollment, number of girls enrolled, number of married girls, and number of married girls graduating were tabulated for the period 1956 to 1964 and 1948 to 1955.

2. The per cent of girls who married and the per cent of married girls who graduated from high school were computed.

Only those girls who graduated with their respective classes were included in the comparison.

3. Total number of married students were tabulated according to grade, drop-outs, and number staying in school.

4. A chi-square test for the significance of difference was used to analyze these socio-economic variables: sibling rank, status of home, and parents' occupation and education.

5. The t test of significance of difference between means was used to show the difference between the married group and the single group in the following areas: junior high school grade-point averages, number of problems checked on Mooney Problem Check List, and the scores on the Otis Mental Ability Test, Differential Aptitude Tests, Iowa Tests of Educational Development, and Survey of Study Habits and Attitudes.

6. Total number of problems in each of the eleven areas of the Mooney Problem Check List marked as being of concern to both groups on the first and second administrations of the Mooney Problem Check List were tabulated.

7. Total number of items checked for counseling on the Survey of the Study Habits and Attitudes for the two groups were tabulated.

8. Total number of hobbies, extra-curricular activities, elective offices, and honors of both groups were tabulated. The number of books, magazines, and newspapers coming into the homes were also tabulated. Total number of students planning to go to college and enrolling in college in both groups were tabulated.

Summary

Parents, high school teachers, counselors, and administrators have felt a growing concern over the increasing number of early marriages. Literary research indicated that the problem of high-school marriages has many sub-problems and that there are many areas of the subject on which more research is needed. There was an expressed need for an evaluation of certain characteristics of tenth-grade girls which may help to identify the potential high-school bride. The evaluation made included efforts to determine the relationship between early marriage and certain abilities, socio-economic characteristics, and personal problems identified by the students.

The subjects for the study were taken from a rural population economically dependent upon agriculture, oil, or ranching, but living within easy driving distance of two

large urban communities which offer a wide range of educational, cultural, and occupational opportunities. It is, therefore, assumed that the subjects are a representative sample of students in the public schools.

It was expected that, when the proposed hypotheses were statistically tested, the conclusions reached would lead to a better understanding of the problems faced by high school students and that an improved guidance program capable of relieving some of the tensions of high school students would result.

CHAPTER BIBLIOGRAPHY

1. Baer, Max F., and Edward C. Roeber, Occupational Information, Chicago, Science Research Associates, Inc., 1951.
2. Bennett, George K., Harold G. Seashore, and Alexander G. Wesson, The Differential Aptitude Tests, New York, The Psychological Corporation, 1959.
3. Brown, William F., and Wayne H. Holtzmann, Manual to Accompany the Survey of Study Habits and Attitudes, New York, The Psychological Corporation, 1956.
4. _____, Survey of Study Habits and Attitudes, New York, The Psychological Corporation, 1956.
5. Burchinal, L. G., "Do Restrictive Policies Curb Teen Marriages?" Overview, I (March, 1960), 72-73.
6. Bureau of Census, "Current Population Reports, Population Characteristics, Marital Status, and Family Status," Census Reports, LVII (April, 1961), 8.
7. Cronback, Lee J., Essentials of Psychological Testing, New York, Harper and Brothers, Publishers, 1960.
8. Hanson, E. H., "Teen-Age Marriages," National Education Association Journal, L (September, 1961), 26-38.
9. Iowa Tests of Educational Development, Chicago, Science Research Associates, Inc., 1960.
10. Ivins, Wilson H., Student Marriages in New Mexico Secondary Schools, Albuquerque, The University of New Mexico Press, 1954.

11. Ivins, Wilson H., "Student Marriages in New Mexico Secondary Schools," Marriage and Family Living, XX (February, 1960), 71-94.
12. Kirkendall, Lester A., "Now It's Marriage in the High School," Oregon Education Journal, XXVI (September, 1951), 8-30.
13. Landis, Judson T., "Attitudes and Policies Concerning Marriage Among High School Students," Marriage and Family Living, XVII (May, 1956), 128-131.
14. Mooney, Ross L., The Mooney Problem Check List, Form H, New York, The Psychological Corporation, 1950.
15. Moss, J. Joel, and Ruby Gingles, "The Relationship of Personality to the Incidence of Early Marriage," Marriage and Family Living, XX (November, 1959), 373-377.
16. Otis, Arthur S., Otis Quick-Scoring Mental Ability Test, Gamma Form, Yonkers-on-Hudson, New York, World Book Company, 1957.
17. Speery, I. V., and Ruth Thompson, "Marriage Among High School Students," National Association of Secondary School Principals Bulletin, XLV (November, 1961), 100-106.
18. Taulbee, Calloway, "Dealing with the Student Marriage Problem," National Association of Secondary School Principals Bulletin, XLI (April, 1957), 146-147.
19. Turner, James W., "A Survey of Student Marriage in Missouri Public Schools," unpublished doctoral dissertation, School of Education, University of Missouri, Columbia, Missouri, 1961.

CHAPTER II

REVIEW OF RELATED RESEARCH

Although much has been written in recent years on the subject of early marriage, few studies have been reported which investigated the causes of early marriage or which attempted to identify adolescent characteristics that might help school personnel to identify the potential high-school spouse. This chapter reviews selected research on the causes of early marriage and selected studies concerned with the characteristics most commonly associated with married high school students--socio-economic background, intelligence, scholastic aptitude, scholastic achievement, attitudes toward school, methods of study, and problems of adjustment met by tenth-grade girls.

Research Related to Causes of Early Marriage

Perhaps the most comprehensive investigation of early marriage and the problem associated with the married high school student was made by Turner (30). His survey, which covered a period from September, 1958, through June, 1961, was based on information from the administrators of 552 of

the 565 public schools listed in the 1960 directory of Missouri schools concerning 93,638 students and 2,527 married high school students. One of the three purposes of Turner's study was to determine the attitudes and opinions of Missouri high school administrators concerning the major causes of these early marriages. The study revealed that a majority of the administrators described the married student as: (1) a problem when he chose to remain in school, (2) medium or low in scholastic ability and achievement, (3) poor or average in over-all citizenship and conduct, and (4) medium or low in socio-economic background. The administrators also stated that premarital pregnancy was the strongest factor influencing early marriage in Missouri, as evidenced by the fact that 46.5 per cent or 1,176 of the 2,527 student marriages reported were pregnancy provoked. Principals of schools enrolling fewer than 500 students indicated the larger proportions of married students.

In 1952-1953, Ivins (16) made a study of seventy-five New Mexico high schools to ascertain the status of student marriages in the state and to determine how often pregnancy had been an influencing factor. The study represented

24,928 students in grades seven through twelve and about half of the schools in the state. One of the limiting factors of the study was that none of the secondary schools in Albuquerque, which enrolled a sizeable portion of New Mexico secondary students, participated. Among the 24,938 students Ivins found 378 marriages. His study made no systematic effort to determine the real reasons for the marriages except to investigate pregnancy as a factor; however, the questionnaire gave principals an opportunity to report other influences on the rate of student marriages. Ivins reported that twenty-nine or 7.6 per cent of the 378 marriages were attributed directly to pregnancies. Besides pregnancy, the principals reported "other influences" on the student marriage rate as follows: (1) installations such as air bases that bring large numbers of marriageable males into a community, (2) today's students being less mature and less effectively prepared for marriage than those of previous generations, (3) military draft, (4) good citizenship and conduct, (5) broken home, (6) school attendance slightly more irregular than that of single peers, (7) poor economic background, and (8) father's work being unskilled labor.

Five years after the 1952-1953 study, Ivins (17) made a follow-up study to: (1) determine whether student

marriages had continued at the rate observed in the earlier study, (2) determine whether changes in school-board policies since the 1952-1953 study might have influenced the situation, and (3) find what other factors might have been operating. The follow-up study presented information representing 34,290 students in sixty-five schools.

As in his earlier study, Ivins sent questionnaires to the high school principals of the state who indicated that seventy-one marriages were supposed to have been caused by pregnancy and that ninety marriages were entered into for conventional reasons. Other causes shown by the questionnaires returned by high-school principals were: (1) fads; (2) escapades, inspired by dates, drinking, braggadocio, and similar circumstances; (3) a combination of fad and escapade; (4) extreme dissatisfaction of the girls with their home situation; (5) parent-child difficulties; and (6) boredom and dissatisfaction of the girls with the situation in which they lived, especially in rural areas. Ivins pointed out that in the 1957-1958 study, there was a smaller proportional representation of the senior-high schools and rural high schools and a greater proportion of the larger urban high schools, in which marriages are less common, than was used in the earlier study. He concluded that the

problem of early marriage was as serious and the policies and programs as inadequate for the state's needs as were found in the earlier study.

Landis (20) made a survey similar to that of Ivin's of the high schools of California. Of 469 questionnaires sent to all senior high schools in the state, 286 were returned. The best response came from rural high schools and from cities up to 50,000 in population. The study reported data on 108,198 students, or 35.8 per cent of all students enrolled in the public senior high schools in California. Landis undertook the study (1) to obtain a better understanding of the nature of the concern of school administrators about high school marriages and (2) to determine the extent of positive programs in family life education. The principals from the 286 schools listed the factors which they thought influenced the state's high school marriage rate; these included: poor home conditions, military draft, glorification of marriage, insecurity of the times, fads, prosperity, parent and community acceptance of early marriage, desire for adult status, emphasis on sex by mass media, imagined man shortage, early social and psychological maturity of modern youth, early dating, school's permissive attitude toward student marriages, lack of success in school,

premarital pregnancy, extension of compulsory school age, and ease of dissolving unsatisfactory marriages. The preceding factors were placed in descending order as to the number of times they were reported. The first factor, poor home conditions, was reported by fifty principals; the last five factors were reported by fewer than five principals.

In a study based on information from twenty-seven Oregon high schools, Kirkendall (18) found the following reasons for early marriage: emotional immaturity; emotional disturbances; pregnancy; escape from an unhappy home; failure, unhappiness, and frustration at school; curiosity about sex; and uncertainty and insecurity based on the prospects of military service. From the data used for the study, Kirkendall described the early-marrying student as being from all kinds of homes, rich and poor; having parents from all occupational groups; frequently belonging to established religious faiths; and having scholastic achievement and citizenship records ranging from excellent to poor.

A state-wide study of the extent of early marriages and the methods by which schools may provide educational services to the married students of Texas high schools was conducted in 1962. Fallon and Tunnell (9) described the

investigation which was made by The West Texas School Study Council, a research group including twenty-two public school systems and Texas Technological College. Authorities from 238 responding schools found a number of factors contributing to Texas high school marriages as follows: (1) going steady, (2) parental pushing for the adolescent to grow up too soon, (3) unstable and unhappy home, (4) lack of strictness in the home, (5) pregnancy, (6) emphasis placed on sex in aspects of daily life, (7) ease of obtaining a divorce, (8) projected image that marriage is glamorous and attractive.

Burchinal (5) from a series of studies undertaken at Iowa State University, found eight present-day conditions that favor early marriages: (1) city living, which gives urban youth of today more freedom and less supervision than did rural life a few years ago; (2) prosperity as a result of both husband and wife getting jobs to finance their marriage; (3) early involvements since teen-agers today date, go steady, and fall in love at younger ages than did the generation before them; (4) popular idealization of marriage through advertising, television, and movies, which glamorize love, sex, and marriage; (5) military economy of war-type conditions encouraging less-considered, younger marriages;

(6) desire to escape from unhappy homes, unsatisfactory school experiences, and unpleasant community situations; (7) desire for adult status, which marriage confers on "uncertain adolescents"; and (8) chain reactions or fads of "marriage is the thing to do" when so many peers are getting married. One of the Iowa series of studies investigated the relationship of early dating to early marriages. This study revealed that when compared to the unmarried peers, the married high school girls (1) had started dating at an earlier age, (2) had been in love a greater number of times, (3) more often had mothers who married young, (4) had begun going steady earlier, (5) had dated more frequently, (6) had known a larger number of close friends who married while in high school, (7) had gone steady more often, (8) more frequently had dated men older than themselves, and (9) had begun more serious dating younger and more often. According to Burchinal, the studies indicated that the job held by the student's father and his educational background were influential socio-economic factors in the occurrence of early marriages.

Inselberg (15) in an attempt to gain some understanding of circumstances conducive to high school marriages and

the marital patterns characterizing them, used an experimental group consisting of couples where at least one spouse was under nineteen years of age and in high school attendance at the time of the marriage was compared to a control group made up of husbands and wives who were married between twenty-one and twenty-six years of age. The experimental group consisted of forty couples and eighteen wives; the control group included forty couples and eleven wives. All of the respondents were white, native-born Americans, and residents of metropolitan Columbus, Ohio. All had been married between three and thirty-six months. The husbands were mainly unskilled laborers, semiskilled, or unskilled craftsmen. The research indicated the following differences between the experimental and the control group in some background characteristics: (1) husbands in the experimental group were less likely to come from intact families, (2) younger wives reported greater disagreement with their parents before marriage, (3) a lesser degree of attachment to the father was indicated by the experimental group, (4) young age at the time of first date and steady dating experience were more characteristic of the experimental group, and (5) couples of the

control group had longer periods of premarital acquaintances and engagements. Inselberg gave four characteristics in which no differences were found between the groups: degree of happiness experienced in childhood, perceived marital happiness of parents at the time of the respondent's marriage, length of steady dating, and anticipated departure of a serviceman for overseas duty.

The objectives of a research project developed in 1955 at the Nebraska Agricultural Experiment Station (24) were: (1) to study and compare the characteristics of females who marry early with those who marry later, (2) to obtain insight into factors involved in early marriages, and (3) to follow as many as possible of these marriages in a longitudinal study in order to compare the success and dynamics of early marriages with those occurring later. The sample was composed of 3,456 girls from grades nine through twelve enrolled in vocational homemaking in seventy-two high schools in Nebraska. Since no data were obtained from schools in the two largest urban centers, the sample is representative of small-town Nebraska. Instruments used in the study were the Mooney Problem Check List, Minnesota Personality Scale, a short questionnaire, an opinionnaire,

and hour-length interviews. Moss and Gingles listed the following findings from the project: (1) girls who marry early tend to be less well adjusted than their unmarried schoolmates, (2) girls who marry early tend to have less satisfying relationships with their families than do their single classmates, (3) the early-married girls began dating earlier than did the single girls, (4) twice as many single girls had planned to go to college as had the unmarried subjects; and (5) socio-economic level was not a factor in the early marriage of the sample.

Research Related to Socio-psychological Background

According to Bossard and Boll (3), the home serves as a very important factor in the process of a child's social identification and the ascription of his status. Although this factor operates in the social development and at all social levels, it is particularly important for girls because they must operate, socially speaking, more in terms of the home basis than must boys. Especially is this true during adolescence when the drive for social recognition is strongest.

Many studies have dealt with the various factors of the socio-economic background of a child. Some of these

studies are reviewed on each of the following areas of background: sibling rank, parents' education, parents' occupation, and status of the home.

In recent years an extensive scientific literature has developed on the significance of sibling position with some considerable differences of opinion. Through the literature, however, there is continuing recognition of the child in a given sibling position, as "only, eldest, in-between, or last" (3).

Scientific studies agree that the only child "differs in various respects from other children" and that "one may expect a priori that all only children will be problems of one kind or another" (9).

Bohannon (2), in his study of the characteristics of the only child, used 481 children of whom 381 were only children. He concluded that only children were below average in health and vitality; suffered more frequently from physical and mental disorders; entered school later, were more irregular in attendance, and did below-average work; joined less in group work; and were noticeable for peculiarities, precocities, selfishness, and affectations.

From experiences in the Los Angeles Child Guidance Clinic, Neal (26) concluded that the only child was usually

a problem child and was jealous, selfish, egotistical, dependent, aggressive, domineering, or quarrelsome.

Fenton (10) based his study on 193 unselected elementary school children of whom thirty-four were only children and 512 university students of whom seventy-three were only children. His data were derived from teachers' ratings on twelve traits of the subjects. He concluded that only children were only a little more selfish and unsocial; more unpopular with their classmates; slightly less obedient; and somewhat more inclined to be leaders, to be self-confident, and aggressive.

Bellerose (1) studied twenty-five only, oldest, middle, and youngest children who had been referred to a habit clinic and concluded that only children were not unique, but that they showed a larger occurrence of food fads and temper spells.

Ward (31) made an investigation of the only child based on her analysis of 100 case records of only children living with their parents and referred to child guidance clinics in large cities. She found that only children were notably younger than clinic children as a whole; ranked higher in intelligence; were less subject to stealing,

lying, and truancy; were more restless and overactive; and had more school difficulties.

In a longitudinal study of 498 only children, Cutts and Moseley (8) used case histories extending over long periods of time. They concluded that (1) the problems of only children often were complicated by family circumstances such as marriage, which were responsible for their being only children; (2) most of the subjects grew up to be well-adjusted adults; and (3) there is evidence that they did not achieve their success without a struggle.

Weill (33) stated that the importance of the individual's position in the family on the basis of order of birth has long been recognized by students of behavior; that this importance grows, in part, out of the differences in the parents' attitude toward children on this basis; and much of it grows out of its effect upon relationships between the children themselves.

In a clinical survey of the population of Chicago, Levy (22), after allowing for the fact that there are more first-born children in the community than in any other ordinal position, in a large city school found that the first-born is a problem child relatively more frequently than children in any other ordinal position.

Koch (19), in her study of some emotional attitudes of the young child, found first-borns recovered less readily from upsets than did second-borns, were more concerned about superegos, were more self-confident, and that first-born girls were more nervous than were second-born.

A study to investigate the influence of sibling position on arithmetic performance was made by Rose (27). The findings indicated that the oldest child is likely to be over-protected.

According to Levy's study the second child "deviates relatively more frequently than children in any other ordinal position" (22).

Cruze (7) stated that the interior child may develop feelings of insecurity, inferiority, and open rebellion.

Bossard and Boll (3) summarized the research on the significance of sibling position and listed these conclusions: the only child tends to be characterized by certain attitudes and traits which handicap his adjustment to his fellows and result in behavior that naturally follows such handicaps as (1) not being schooled in the lessons of living with his kind, (2) faces hazards in emotional development because of emotional demands of parents, and his security

of position is never challenged; his parents are over-solicitous, and the shift to adult association comes early. The oldest child is egocentric, sensitive, and emotionally isolated. He also assumes leadership and responsibility more quickly than his sibs (3). The in-between child who gets hand-me-downs and enters a more complex situation than did his older sibling is often measured by the older sibling. He must struggle just to be somebody; therefore, he can drive harder and catch the older sibling, criticize his older sibling, or drop back and join the baby. The last sibling has a prolonged babyhood, enters a more complex situation than did older children, enjoys more security from his parents' maturity, has more advantages, and has two choices of adjustment--he may accept long babyhood or try to catch up with an older child.

Another factor of the socio-psychological background is the status of the home. In a study of 4,400 high school seniors in 1953, Landis (21) found that 20 per cent were from broken homes.

Torrance (29), studied the characteristics of children from broken homes and concluded that they had appreciably more problems than their classmates from complete homes,

were under more tensions, made poorer adjustment, did poorer school work, and rated lower on personality scales than did their classmates.

Research Related to Socio-economic Background

Another status-achieving factor for the high school student is the occupations of his parents, particularly that of the father (4). Opinion News (25) described a nation-wide, cross-section survey of America to explore some of the basic public attitudes regarding occupations. The most important findings were: (1) the best occupations were those of public importance and for high incomes such as Supreme Court Justice, mayor, physician, or college professor; and (2) the least desirable occupations were unskilled, low-paid, and "dirty" jobs involving little public responsibility such as street sweeper, junk man, or garbage collector.

A study by Simmons (28) was designed to gather information on the development of awareness of occupational status among children. His subjects were from a small western community and included twenty-eight boys and eighteen girls in grade four; twenty-eight boys and nineteen girls in grade eight; and twenty-nine boys and nineteen girls in

grade twelve. The mean IQ for the subjects was 113, which was above national average because of the large number of college personnel. The subjects were also matched in socioeconomic background. On a test-retest procedure he found that the agreement was significant at the .05 level and that the subgroup agreement was significant at the .001 level. He also found that fourth-grade boys were high in agreement with adults ($r_{ho} = + 0.868$); that eighth-grade girls were equally as high; that over a two-month period, group prestige hierarchies remained stable; and that occupations which ranked high in prestige tended to rank high also in pupil interest.

Bossard (3) found that definite attitudes toward the parents' occupations resulted in feelings of pride, respect, acceptance, tolerance, or shame.

According to Hartley and Hartley (12), education is used by American parents and children as a status symbol. They pointed out that education is considered the means of acquiring wealth, which must be translated into socially-approved possession and behavior.

Research Related to Intelligence, Achievement,
and Aptitude

A review of the scientific literature on the relationship of early marriage to intelligence, scholastic achievement, and aptitude does not yield any definite conclusions. A few examples illustrate this lack of agreement.

Turner (30) stated that the reporting administrators ranked the majority of the married students either medium or low as to scholastic ability and scholastic achievement.

Kirkendall (18), from a survey of twenty-seven Oregon schools and a national survey, found that early marrying boys and girls range from excellent to poor in achievement.

Garner and Speery (11) reported that no literature was found which provided statistical comparisons of the scholastic achievements of married and unmarried students. In a study conducted in North Carolina they attempted to make a more accurate comparison of the scholastic achievements of married students with the scholastic achievements of unmarried students. Their findings were based on data from the permanent high school records; from these data subject grades were converted from letters to numerical values, using the evaluations employed at the school from which the sample came. Achievement scores were measured

by the Iowa Tests of Educational Development. The two groups were matched on intelligence quotients. The authors reported that the single students had maintained a three point higher mean on subject grades than the married students, a difference significant at the 5 per cent level of confidence. On the achievement test scores the difference was in favor of the unmarried group at between the 5 and the 10 per cent level of confidence.

The next study (13) used the Brown-Holtzman Survey of Study Habits and Attitudes as the instrument of measurement by which the subjects could identify their problems. Holtzman and Brown found a high correlation between the SSHA scores and the ACE scores and concluded that the SSHA could be used to predict academic success. Its predictive value is high; however, the test is fakeable.

Holtzman, Brown and Farquhar (14) found a higher correlation between SSHA and first-semester grades when the student felt a need for scholastic help.

Summary

The range and scope of the investigations made of the causes of early marriage and the identifying characteristics of high school brides are still limited. A review of the

literature indicates that although the research which had been done was more often the work of sociologist than of psychologist, there was a considerable lack of agreement in the conclusions drawn from the studies. Furthermore, many of the studies, although state-wide, did not use a representative sample. For instance, Ivins (16) and Moss and Gingles (24) used no subjects from large urban communities and Cavan and Beling (6) used no samples from communities of less than 10,000. Since research agrees that there were proportionally fewer marriages in schools in the large urban communities than in the small rural communities, these limitations would influence the degree of agreement in the conclusions drawn.

A review of related literature indicated some lack of agreement as to the significance of the variables used by the present study. This was particularly true of the socio-psychological factors. For example, most of the studies of sibling rank have used abnormal subjects more frequently than they have normal (2).

There was a concensus among the researchers that school boards and school personnel need carefully to evaluate their present attitudes toward married students and the offerings

made to the students by curriculum and guidance workers and to consider the early marriage as a challenge which must be met as the situation demands rather than to be thwarted in helplessness and with disapproval.

CHAPTER BIBLIOGRAPHY

1. Bellerose, Dorothy, "Behavior Problems of Children," unpublished master's thesis, Department of Social Work, Smith College, Northampton, Massachusetts, 1927.
2. Bohannon, E. W., "The Only Child in a Family," Pedagogical Seminary, V (April, 1898), 306-310.
3. Bossard, James H. S., and Eleanor S. Boll, "Personality Roles in the Large Family," Child Development, XXVI (March, 1955), 71-78.
4. _____, The Sociology of Child Development, New York, Harper and Brothers, Publishers, 1960.
5. Burchinal, Lee G., "What About School-Age Marriage?" Iowa Farm Science, XI (June, 1958), 12-14.
6. Cavan, Ruth S., and Grace Geling, "A Study of High School Marriages," Marriage and Family Living, XX (August, 1958), 293-295.
7. Cruze, Wendell W., Adolescent Psychology and Development, New York, Ronald Press Company, 1953.
8. Cutts, Norma E., and Nicholas Moseley, The Only Child, New York, G. P. Putman's Sons, 1954.
9. Fallon, Berlie J., and James W. Tunnell, "High School Marriage, Fad or Fact?" The Texas Outlook, XLVII (November, 1963), 15-20.
10. Fenton, Norman, "The Only Child," Pedagogical Seminary, XXXV (December, 1928), 546ff.
11. Garner, Kate B., and Irwin W. Speery, "Scholastic Achievements of Married and Unmarried High School Students," National Association of Secondary School Principals, XLV (May, 1961), 79-84.

12. Hartley, Eugene L., and Ruth E. Hartley, Fundamentals of Social Psychology, New York, Alfred A. Knopf, 1955.
13. Holtzman, W. A., and W. F. Brown, "Study Habits and Attitudes in the Prediction of Academic Success," unpublished research paper, Department of Education, University of Texas, Austin, Texas, 1953.
14. Holtzman, W. A., W. F. Brown, and W. G. Farquhar, "Survey of Study Habits and Attitudes, a New Instrument for the Prediction of Academic Success," Educational and Psychological Measurement, XIV (March, 1954), 726-732.
15. Inselberg, R. M., "Social and Psychological Factors Associated with High School Marriage," unpublished research paper, Department of Sociology, Ohio State University, Columbus, Ohio, 1960.
16. Ivins, Wilson H., Student Marriages in New Mexico, Albuquerque, University of New Mexico Press, 1953.
17. _____, "Student Marriages in New Mexico Secondary Schools," Marriage and Family Living, XX (February, 1960), 71-94.
18. Kirkendall, Lester A., "School Bells and Wedding Chimes," National Parent Teacher, XLIX (March, 1955), 8-10.
19. Koch Helen L., "Some Personality Correlates of Sex, Sibling Position, and Sex of Sibling Among Five and Six Year Old Children," Genetic Psychological Monograph, LII (September, 1955), 3-50.
20. Landis, Judson T., "Marriage of Students in the Public Schools of California," Marriage and Family Living, XVIII (June, 1956), 128-131.
21. Landis, Paul H., Adolescence and Youth, New York, McGraw-Hill Book Company, Inc., 1945.

22. Levy, David M., "A Quantitative Study of Behavior Problems in Relation to Family Constellation," American Journal of Psychiatry, LXXXVII (January, 1931), 637-654.
23. Mooney, R. L., "Surveying High School Student's Problems by Means of the Mooney Problem Check List," Educational Research Bulletin, XXXI (March, 1942), 57-69.
24. Moss, J. Joel, and Ruby Gingles, "The Relationship of Personality to the Incidence of Early Marriage," Marriage and Family Living, XIX (November, 1959), 373-377.
25. National Opinion Research Center, "Jobs and Occupations," Opinion News, IX (September, 1947), 3-13.
26. Neal, Eva, "The Only Child," Mental Hygiene Bulletin, XII (November, 1927), 71-73.
27. Rose, Alvin W., and Helen Cureton Rose, "Intelligence, Sibling Position, and Sociocultural Background as Factors in Arithmetic Performance," Arithmetic Teacher, VII (February, 1961), 50-56.
28. Simmons, Dale D., "Children's Ranking of Occupational Prestige," Personnel and Guidance Journal, XLI (December, 1962), 332-364.
29. Torrance, Paul, "The Influence of the Broken Home on Adolescent Adjustment," Journal of Educational Sociology, XVIII (April, 1945), 359-364.
30. Turner, James W., "A Survey of Student Marriage in Missouri Public Schools," unpublished doctoral dissertation, School of Education, University of Missouri, Columbia, Missouri, 1961.
31. Ward, Anne, "The Only Child," Smith College Studies in Social Work, XIX (September, 1930), 4.

32. Warner, Lloyd W., Marchia Meeker, and Kenneth Ellis, Social Class in America, Chicago, Science Research Associates, 1949.
33. Weill, Blanche C., The Behavior of Young Children of the Same Family, Cambridge, Harvard University Press, 1928.

CHAPTER III

INTERPRETATION OF DATA

The problem of this study was to isolate some of the characteristics of tenth-grade girls which may lead to early marriage. The isolation of these characteristics was accomplished by comparing a group of single high school girls on the basis of fifteen variables. All tests used in this study were given when the students were sophomores, and it was possible to isolate those who subsequently were married before graduation. Tabulation of the results of a computation for the statistical significance of each of the fifteen variables indicated the effectiveness of each variable as a predictor of early marriage. As all of the fifteen variables were not adapted to the use of a single statistical method, the analysis was divided into four steps.

The first step in the analysis of the data involved comparisons between the two groups on the basis of certain socio-psychological and socio-economic factors: sibling rank, status of home, parents' occupation, and parents'

education. The statistical method used in this phase of the analysis was the chi-square test for significance of difference.

Statistical Analysis

The sibling ranks of the subjects of the two groups were divided into the following four categories which were identified by the accompanying number: first-born, 1; interior-born, 2; last-born, 3; and only child, 4. The distribution of the subjects of the two groups in these categories is presented in Table IV.

TABLE IV

CHI-SQUARE TEST FOR SIGNIFICANCE OF DIFFERENCE BETWEEN THE DISTRIBUTIONS OF SINGLE AND MARRIED SUBJECTS IN THE FOUR CATEGORIES OF SIBLING RANK

Group	1	2	3	4	Total	Chi-Square	Level of Confidence		
Single									
Observed	24	19	24	8	75	2.28	N.S.		
Theoretical	24	22.5	20.5	7.9					
Married									
Observed	24	26	17	8	75				
Theoretical	24	22.5	20.5	7.9					
Total	48	45	41	16					

A chi-square test of significance was computed for the data presented in this table, but the obtained value of chi-square, with three degrees of freedom, was 2.28, which fell short of statistical significance. The first hypothesis stated that the sibling rank is significantly less for the girls who married early when compared to that of the girls who remained single through high school. Evidence in this study did not support this hypothesis.

Although the difference between the two groups as to sibling ranks was not statistically significant, the "interior" and "last" categories seem to have socio-psychological significance. Both groups had twenty-four first-borns and eight only children, but there were seven more interior married subjects than there were single subjects, and there were seven fewer last-borns in the married group than in the single group. As Cruze (3) suggested, these interior children may have developed feelings of insecurity, inferiority, and open rebellion against their home situations and turned to early marriage as an escape. Bossard and Boll (1) suggested that the last-born enjoyed more security and more advantages than the other siblings. The last-born's unwillingness to give up this security may explain the smaller number of married last-borns.

The status of the homes of the subjects in the single and married groups is presented in Table V. It will be noted that there were 50 per cent more married girls from broken homes than there were single girls.

TABLE V

CHI-SQUARE TEST FOR SIGNIFICANCE OF DIFFERENCE BETWEEN THE DISTRIBUTIONS OF SUBJECTS OF THE SINGLE AND MARRIED GROUPS IN BROKEN AND INTACT HOMES

Group	Intact	Broken	Total	Chi-Square	Level of Confidence
Single					
Observed	65	10	75		
Theoretical	62.1	11.9		1.69	.10
Married					
Observed	60	15	75		
Theoretical	62.9	12.1			
Total	125	25	150		

A chi-square test of significance was computed for the data contained in Table V. The results of the computation, with one degree of freedom, was a chi-square of 1.69, which was significant at the 10 per cent level of confidence. This level of confidence does not agree with Landis' (5) study which found that 20 per cent of his subjects were from broken homes as compared to 16.6 per cent found in

the present study. The second hypothesis stated that the number of broken homes would be less for the girls who remain single through high school when compared to that of the girls who married early. The findings of this statistical analysis indicated that the hypothesis should be accepted.

The distribution of the subjects in the two groups as to education of the subjects' fathers is presented in Table VI. For this analysis, the fathers' education was divided as to grade school, high school, and college.

TABLE VI

CHI-SQUARE TEST FOR THE SIGNIFICANCE OF DIFFERENCE BETWEEN THE DISTRIBUTIONS OF SUBJECTS IN THE SINGLE AND MARRIED GROUPS AS TO FATHERS' EDUCATION

Group	Grade School	High School	College	Total	Chi-Square	Level of Confidence
Single						
Observed	27	35	11	73		
Theoretical	20.4	42.7	9.93		7.29	.02
Married						
Observed	14	51	9	74		
Theoretical	20.6	43.3	10.1			
Total	41	86	20	147		

That 86 of the 147 fathers had only high school educations and only 20 of the 147 fathers attended college is shown in Table VI. The single group had 13 more fathers with grade school education than did the married subjects. However, 51 of the 74 fathers of married subjects had high school educations. This was the area of greatest difference between the two groups as to the educational backgrounds of the fathers. At the college level the single subjects had two more fathers than the married group.

The computation for a chi-square test, with two degrees of freedom, gave an obtained value of 7.29, which was a significant difference between the groups in that the fathers of married subjects had more years in school than the fathers of the single subjects.

The distribution of the subjects in the two groups as to education of the subjects' mothers is presented in Table VII. For this analysis, the mothers' educational backgrounds were divided into three categories: grade school, high school, and college.

As shown in Table VII, most of the mothers, 81 out of 150, had high school educations and 46 of the 150 mothers had attended college. As was the case with the subjects'

TABLE VII

CHI-SQUARE TEST FOR THE SIGNIFICANCE OF DIFFERENCE BETWEEN THE DISTRIBUTIONS OF SUBJECTS IN THE SINGLE AND MARRIED GROUPS AS TO MOTHERS' EDUCATION

Group	Grade School	High School	College	Total	Chi-Square	Level of Confidence
Single						
Observed	15	35	25	75		
Theoretical	11.5	40.5	23			
Married					3.97	.10
Observed	8	46	21	75		
Theoretical	11.5	40.5	23			
Total	23	81	46	150		

fathers, the married subjects had more mothers in the high school group than did the single subjects.

The single subjects had seven more mothers with a grade school education and four more with college backgrounds than did the married subjects. In general there is less difference between the educational levels of the mothers of the two groups than between the educational levels of the fathers of the groups.

The computation of the chi-square test for significance of difference, with two degrees of freedom, yielded a chi-square of 3.97, which was statistically significant

at the 10 per cent level. This finding indicated that the mothers of the married subjects had better educational backgrounds than the mothers of the single subjects.

The seventh hypothesis stated that the number of years in school will be less for the parents of the girls who married early when compared to that of the girls who remained single through high school. From the evidence of this part of the analysis this hypothesis was rejected.

The occupational distribution of the fathers of the subjects in the two groups in terms of the numerical values arbitrarily assigned to six occupational groups is shown in Table VIII. Professional occupations were assigned a numerical value of 1; managerial, 2; salesmen, government employees, and clerical workers, 3; skilled laborers, 4; semiskilled laborers, 5; and unskilled laborers, 6.

Since agriculture and related industry concerns far more than half of all of the population of the community, over half of the 148 fathers were in the managerial group which included owners and operators of farms and ranches.

The professional group had the fewest fathers, only seven of the 148. Few of the local high schools' graduates who enter the professional fields return to the home town

TABLE VIII

CHI-SQUARE TEST FOR THE SIGNIFICANCE OF DIFFERENCE BETWEEN
THE DISTRIBUTIONS OF SUBJECTS IN THE MARRIED AND
SINGLE GROUPS BY FATHERS' OCCUPATION

Group	1	2	3	4	5	6	To- tal	Chi- Square	Level of Confidence
Single									
Observed	6	38	4	15	4	7	74		
Theoretical	3.5	32.5	8	14	5.5	10.5		9.00	.10
Married									
Observed	1	27	12	14	7	14	74		
Theoretical	3.5	32.5	8	14	5.5	10.5			
Total	7	65	16	28	11	21	148		

to practice. Therefore, most professional people of the community are women or older men whose children were well beyond high school age at the time of this study.

As shown in Table VIII above, the second largest group of fathers was skilled laborers. Most of these men were engaged in some part of the construction business.

The unskilled category was small partly because of the common use of migratory Latin-Americans during busy seasons and because large cities attract many unskilled workers resulting in an almost constant shortage of year-around farm workers.

The four fathers in the single group in the salesmen category were government employees, while the twelve fathers in the married group were car, insurance, or tractor salesmen, parts clerks (auto, tractor, appliance), or filling station assistants. Most other sales people in the community were women.

The single group had five more in the professional group than did the married subjects. The single group had eleven more in the managerial category than did the married group. In the skilled labor group the single subjects had only two more than the married group. In all other areas the married group had the larger numbers. The married subjects had eight more fathers who were salesmen, three more who were semiskilled, and seven more who were unskilled workers than did the single subjects.

The result of the computation, with five degrees of freedom, was a chi-square of 9.00 with Yates' correction applied to adjust for an expected frequency less than five. This chi-square was more than 7.29 needed for the 10 per cent level of confidence. This level of confidence supported the eighth hypothesis which stated that the occupational scores of the fathers of the single students would

be less than those of the fathers of the married subjects; therefore, the hypothesis was accepted.

The mothers of the single subjects were more often homemakers, while the mothers of the married subjects more often worked outside the home. These data are presented in Table IX.

TABLE IX

CHI-SQUARE TEST FOR THE SIGNIFICANCE OF DIFFERENCE BETWEEN THE DISTRIBUTIONS OF THE SUBJECTS IN THE SINGLE AND MARRIED GROUPS BY MOTHERS' OCCUPATION

Group	Homemaker	Employed	Total	Chi-Square	Level of Confidence
Single Observed	53	22	75	2.36	.10
Theoretical	48.5	26.5			
Married Observed	44	31	75		
Theoretical	48.5	26.5			
Total	97	53	150		

Although ninety-seven of the 150 mothers were homemakers and only fifty-three were employed, the between-group differences were significant. In the single group there were nine more homemakers than in the married group.

A chi-square test of significance was computed for the data in Table IX. The result of the computation, with one degree of freedom, was a chi-square of 2.36, which was better than the 10 per cent level of significance. Hypothesis 9 stated that for the girls who remained single through high school there were fewer employed mothers than for the girls who married early. Evidence from this study supported the hypothesis.

The method used for the second step in the analysis of the data was Fishers' t test for significance of difference between means. In this part of the analysis, the two groups were compared as to grade-point average, mental ability, aptitude, scholastic achievement, study habits and attitudes, and the number of personal problems identified by the subjects. The variables used were the junior high school grade-point averages, the scores of the Otis Quick-Scoring Mental Ability Test, the Differential Aptitude Tests, the Iowa Tests of Educational Development, and the Survey of Study Habits and Attitudes, and the number of problems indicated on each of the eleven areas of the Mooney Problem Check List.

The junior high school grade-point average was based on all the formal courses in grades seven, eight, and nine.

No subjects were used who did not have complete records from grade seven through graduation or until they married. The t test for difference in mean grade-point average between the single and married groups resulted in the figures presented in Table X.

TABLE X

MEAN, STANDARD DEVIATION, AND t OF GRADE-POINT AVERAGE OBTAINED IN JUNIOR HIGH SCHOOL

Group	Mean	S.D.	t	Level of Confidence
Single (N=75)	2.29	.62	3.29	.01
Married (N=75)	1.97	.56		

The results of the analysis indicated that the single subjects had higher grade-point averages for work done in grades seven, eight, and nine than did the married subjects. This difference was significant, as a t of 3.29 was beyond the 2.58 needed for the .01 level of significance. The tenth hypothesis which stated that the mean of the junior high school grade-point averages would be less for the married students than for the single students was accepted on evidence from this analysis of the data.

The means, standard deviations, and the results of a t test for difference between the mean mental ability scores for subjects in the married and single groups are depicted in Table XI.

TABLE XI
MEAN, STANDARD DEVIATION, AND t OF MEAN OTIS
MENTAL ABILITY TEST SCORES

Group	Mean	S.D.	t	Level of Confidence
Single (N=75)	50.64	7.74	2.90	.001
Married (N=75)	47.11	7.08		

Since the t of 2.90, as shown in Table XI, was more than the 2.58 of the .001 level of significance, the analysis of these data indicated that the single group had significantly higher mean score in mental ability than the married group. Therefore, the the third hypothesis which stated that the mean mental ability score as measured by the Otis Quick-Scoring Mental Ability Test would be less for the girls who married early when compared to that of the girls who were unmarried through high school was accepted.

On the Otis the national norm for subjects seventeen years of age to adults is a score of forty-two. That the mean Otis score for the married subjects was five points above this is shown in Table XI.

The high mean mental ability scores helped to explain the high junior high school grade-point averages. It also may indicate that both groups were working up to ability.

Table XII, page 71, presents the results of a t test of difference between the mean subtest scores of the Differential Aptitude Test of the subjects of the two groups.

As shown in this table, the mean score on every subtest of the Differential Aptitude Test was higher for the single subjects than for the married subjects. The t test indicated that this differences was statistically significant on every subtest. Since the DAT is designed to measure the students' potentialities for scholastic success, these data in Table XII are useful in many ways.

The most significant differences on this test were on Verbal Reasoning and Spelling, which were significant at the .001 level of confidence. These tests indicate the subjects' aptitude for using words which is the basis for successful school work at all levels.

TABLE XII

MEAN, STANDARD DEVIATION, AND t OF DIFFERENTIAL
APTITUDE TEST SCORES

Group	Test	Mean	S.D.	t	Level of Confidence
Single*	VR	24.81	7.44	3.49	.001
Married**	VR	20.87	6.25		
Single	NA	21.44	6.75	2.20	.02
Married	NA	19.25	5.26		
Single	AR	30.33	8.59	2.21	.02
Married	AR	27.24	3.40		
Single	SR	43.55	19.16	2.04	.02
Married	SR	37.05	19.50		
Single	MR	31.68	10.35	2.13	.02
Married	MR	27.99	10.71		
Single	CSA	66.21	13.59	2.39	.01
Married	CSA	61.13	12.29		
Single	SP	63.75	21.41	3.14	.001
Married	SP	53.21	19.28		
Single	SEN	45.56	13.39	1.98	.02
Married	SEN	41.04	14.42		

*N=75.

**N=75.

As shown in the preceding table, the next greatest difference between the groups was in Clerical Speed and Accuracy which was significant at the .01 level. On all other tests the differences were significant at the 2 per cent level. It may be significant that the mean subtest scores for both groups are above the mean national scores in all areas except Numerical Ability and Abstract Reasoning. In these two areas the mean scores for the married subjects were slightly below the respective national mean scores. The sixth hypothesis stated that the mean aptitude scores as measured by the Differential Aptitude Tests would be less for the girls who married early when compared to those of the girls who were unmarried through high school. Evidence of the study supported this hypothesis.

The t test was used to compute the significance of difference between the means of the two groups on the composite score and the subtest scores on the Iowa Test of Educational Development. The results of these computations are presented in Table XIII, shown on the following page.

Data in Table XIII indicated that there were significant difference between the subjects in the single and

TABLE XIII

MEAN, STANDARD DEVIATION, AND t OF IOWA TEST OF
EDUCATIONAL DEVELOPMENT SCORES

Group	Test	Mean	S.D.	t	Level of Confidence
Single*	BSS	17.71	5.14	4.50	.001
Married**	BSS	14.53	3.21		
Single	BNS	18.33	4.67	4.91	.001
Married	BNS	15.04	3.35		
Single	CW	19.23	3.83	2.99	.001
Married	CW	17.48	3.27		
Single	QT	16.91	5.18	4.37	.001
Married	QT	13.48	4.33		
Single	RSS	18.33	5.74	3.52	.001
Married	RSS	15.36	4.45		
Single	RNS	18.59	5.65	2.52	.01
Married	RNS	16.27	5.56		
Single	RL	18.71	5.66	3.01	.001
Married	RL	16.21	4.34		
Single	GV	19.12	4.61	5.74	.001
Married	GV	15.11	3.87		
Single	COM	19.48	5.14	4.76	.001
Married	COM	16.09	3.31		
Single	US	18.61	4.76	4.37	.001
Married	US	15.41	4.09		

*N=75.

**N=75.

married groups as to the composite and subtest scores on the Iowa Test of Educational Development. On the composite score and all the subtest scores, the single subjects had higher mean scores, and these differences were significant at the .001 level of confidence except on Reading Natural Science, which was significant at the .01 level. The fifth hypothesis stated that the mean achievement scores as measured by the Iowa Test of Educational Development would be less for the students who remained single through high school. Evidence of this study supported this hypothesis.

The means, standard deviations, and the results of a t test of difference in the mean Survey of Study Habits and Attitudes scores between the two groups are presented in Table XIV.

TABLE XIV
MEAN, STANDARD DEVIATION, AND t OF SURVEY OF STUDY HABITS AND ATTITUDES SCORES

Group	Mean	S.D.	<u>t</u>	Level of Confidence
Single (N=75)	36.26	6.76	1.24	N.S.
Married (N=75)	34.67	8.81		

The results of this analysis indicated that, while the mean Survey of Study Habits and Attitudes score of the single group was slightly higher than that of the married group, this difference was not statistically significant as the result was t of 1.24. According to the Manual to Accompany the Survey of Study Habits and Attitudes (2), the mean score for Texas girls in grades ten, eleven, and twelve was 32.9. The mean score for the married subjects was 34.67 which placed them at the 55th percentile and for the single subjects was 36.26 which placed them at the 60th percentile according to the national norms for SSHA. This would indicate that as a group, both married and single girls had typical study habits and attitudes. On the findings of this part of the analysis, the fourth hypothesis which stated that the mean score of the study habits and attitudes as measured by the Survey of Study Habits and Attitudes would be less for the girls who married early when compared to that of the girls who remained single through high school was rejected.

The number of personal problems identified in each area of the Mooney Problem Check List of the subjects by groups are presented in Table XV.

TABLE XV

NUMBER OF PERSONAL PROBLEMS ON EACH AREA OF THE MOONEY
PROBLEM CHECK LIST BY THE SUBJECTS OF SINGLE
 AND MARRIED GROUPS

Group	Area	Number of Problems
Single	HPD	134
Married	HPD	149
Single	FLE	259
Married	FLE	110
Single	SRA	160
Married	SRA	92
Single	CSM	222
Married	CSM	153
Single	SPR	268
Married	SPR	158
Single	PPR	289
Married	PPR	133
Single	MR	238
Married	MR	156
Single	HF	203
Married	HF	219
Single	FVE	202
Married	FVE	114
Single	ASW	213
Married	ASW	132
Single	CTP	124
Married	CTP	63
Single	Total	2,435
Married	Total	1,574

The area of most concern for the single group was SPR; for the married group, HF. The area of Home and Family was the only area on which the married subjects marked more items than did the single subjects.

The total number of items marked by the single subjects ranged from 124 to 289, while the total number of items marked by the married subjects ranged from 63 to 219. The total number of items checked by the single subjects was 861 larger than the number marked by the married group. This may not mean that the single student had more problems than the married subjects, but that the single student may have more freely admitted having the problems. According to the author of the Mooney Problem Check List, both groups failed to identify as many problems as expected, since the mean number of problems identified is twenty-five and the median is twenty (7).

These findings are significant to counselors as they permit them to make a survey by checking all items marked and finding areas of greatest concern for a group of students. This pre-conference check also allows the counselors a picture of a group and of an individual in that group as to possible areas of tension.

The means, standard deviations, and t test results of a comparison of the two groups on each of the eleven areas of the Mooney Problem Check List are shown in Table XVI on the following page.

The computations indicated that all subjects were concerned about employment and finance and about home and family, and that the single subjects expressed more concern in the other nine areas than did the married subjects. Perhaps some of the early marriages were caused by a desire to escape overwhelming home and family problems. The married subjects may have neglected to identify all of their problems in all areas. On the other hand, the married subjects may not have recognized their problems among those covered by the Mooney Problem Check List.

The analysis indicated that a t test of the differences in areas HPD, SRA, SPR, PPR, FVE, and the total number of items were significant at the .001 level. The difference between the groups in the area of CTP was significant at the .01 level and MR at the .02 level of confidence. In the areas of ASW and CSM the levels of confidence were .05. The differences in the mean number of items marked in the areas

TABLE XVI

MEAN, STANDARD DEVIATION AND t OF THE MOONEY PROBLEM CHECK
LIST SCORES FOR SINGLE AND MARRIED GROUPS

Group	Test	Mean	S.D.	t	Level of Confidence
Single*	HPD	2.99	2.30	2.67	.001
Married**	HPD	1.99	2.35		
Single	FLE	3.19	2.95	0.32	N.S.
Married	FLE	2.99	4.44		
Single	SRA	3.55	4.02	4.11	.001
Married	SRA	1.23	2.73		
Single	SPR	2.96	2.90	1.77	.001
Married	SPR	2.04	3.39		
Single	PPR	3.59	3.72	2.82	.001
Married	PPR	2.12	2.49		
Single	CSM	3.85	3.45	3.94	.05
Married	CSM	1.77	2.95		
Single	HF	3.24	3.48	2.06	N.S.
Married	HF	2.08	3.38		
Single	MR	2.67	3.06	0.02	.02
Married	MR	2.68	4.35		
Single	ASW	2.69	3.14	2.59	.05
Married	ASW	1.92	2.29		
Single	FVE	2.84	3.52	1.74	.001
Married	FVE	1.76	4.00		
Single	CTP	1.65	2.14	2.41	.01
Married	CTP	0.84	1.97		
Single	Total	32.47	24.38	2.99	.001
Married	Total	20.99	22.31		

*N=75.

**N=75.

of FLE and HF were not large enough to be statistically significant.

The third phase of the analysis involved comparing the two groups as to (1) changes between the number of problems identified on the first marking, made in grade ten, and later markings made in grades eleven or twelve, of the Mooney Problem Check List, and (2) the particular items and areas of difficulty marked on the Survey of Study Habits and Attitudes in grade ten. As the instruments were administered more than once when the student requested a second test or when some situation suggested a need for a retest, none of the single subjects and only a part of the married subjects had a second Mooney Problem Check List test. For that reason, no statistical computation was used in the comparison. Only thirty-nine subjects had marked the Mooney Problem Check List after their marriage. A comparison of these two markings is shown in Table XVII on the following page.

The total number of problems marked on the first administration was 969 with a range of 5 to 188 problems. On the second administration the total number of problems dropped to 658 with a range of 6 to 52 problems. Although the areas FLE and MR held the first and second places on

TABLE XVII

TOTAL NUMBER OF PROBLEMS CHECKED IN EACH AREA OF THE
MOONEY PROBLEM CHECK LIST BY MARRIED SUBJECTS
 ON THE FIRST AND SECOND ADMINISTRATIONS

Area	Test	First Administration N=39	Second Administration N=39
I	HPD	79	78
II	FLE	149	87
III	SRA	49	18
IV	SPR	87	24
V	PFR	98	80
VI	CSM	68	74
VII	HF	91	81
VIII	MR	139	44
IX	ACW	75	66
X	FVE	92	66
XI	CTP	42	40
Total		969	658
Range		5-188	6 - 52

both administrations, there was a considerable loss in the number marked the second time in the areas of FLE and MR. The area having the fewest problems checked on the first

administration was CTP the first time seems to indicate that the biggest problems for most of the thirty-nine students lay somewhere outside of school activities. The fact that most of the students found more trouble in the area of FLE indicated that this area is the most common source of worry and concern. Some of these changes in the second administration indicated a change of interest and point of view after marriage, which would be logical for the areas of FVE, HF (which had the largest change), SRA, and CSM.

In their Manual to Accompany the Survey of the Study Habits and Attitudes (2), Brown and Holtzman recommended that counselors use the survey as an instrument to identify students whose study habits and attitudes were different from those of subjects who earn high grades. The authors also suggested that not only the student's score and percentile rank but his responses to the statements making up the scale--those which are not scored as well as those which are--should be considered in the evaluation of his study habits and attitudes. Although the two groups did not differ significantly on their Survey of Study Habits and Attitude scores, some significant differences are found

in the number of items checked using the counseling key. The number of times items for counseling were marked by each group is presented in Table XVIII.

TABLE XVIII

FREQUENCY OF MARKING ITEMS CHECKED FOR COUNSELING ON THE SURVEY OF THE STUDY HABITS AND ATTITUDES BY SINGLE AND MARRIED STUDENTS

Item	Number of Times Checked	
	Single	Married
9	0	1
4	0	3
5	1	4
6	0	4
7	2	4
8	0	2
15	0	7
16	0	1
17	1	6
18	1	4
21	0	7
22	3	11
25	3	1
30	4	10
32	0	5
43	8	12

The significant difference between the two groups as to need for counseling on the Survey of Study Habits and Attitudes items is revealed in Table XVIII. In the area of teacher-pupil attitudes, the married students marked items 9 and 43 a total of thirteen times as compared to

eight marks by the single students. This difference may indicate that the married subjects felt shame for something beyond their control, resentment toward the teacher, teacher-rejection, or desire for revenge. The four items dealing with the students' interest in subjects were marked by the counselor eighteen times for the married students and none for the single. This difference suggests that the married students saw no practical use for a course, had lost interest in school, or had more pressing problems or interests which commanded their attention. Items concerned with the students' limitations were checked thirty-eight times for the married students and seven times for the single students. This indicated the subjects' lack of self-confidence, their need for encouragement, or their imagined weaknesses. Items concerning poor study habits were checked eighty-two times for the married students compared to thirty times for the single students. The failure to learn correct or at least desirable study habits seems to be a weakness in many students, often very capable students. The significant difference of fifty-two markings indicates the need for how-to-study help for students with these weaknesses.

The last part of the analysis of the data is concerned with comparing the two groups as to information from the

Personal Data Sheet. Items used for comparison are hobbies; extra-curricular activities; elective offices and honors; number of books, magazines, and newspapers coming to the homes; the number planning to go to college; and the number enrolled in college. A comparison of the single and married subjects in these areas is presented in Table XIX.

TABLE XIX

COMPARISON OF SINGLE AND MARRIED GROUPS BY NUMBER OF HOBBIES, BOOKS, MAGAZINES, NEWSPAPERS, ELECTED OFFICES AND HONORS, EXTRA-CURRICULAR ACTIVITIES AND COLLEGE PLANS AND ENROLLMENT

Area	Single N=75	Married N=75
Hobbies	103	17
Books	3871	397
Newspapers	126	61
Magazines	319	101
Activities	454	76*
Offices and Honors	434	181*
College Plans	68	27
College Enroll	38	0

*None since 1961 regulation by Board of Education.

The difference in the number of hobbies indicated that the single subjects came from better economic backgrounds since almost any hobby involves some expense.

The difference in the groups as to number of books, newspapers, and magazines indicated that the single students

had more cultural advantages as evidenced by greater amount of literature entering their homes. The greater amount of reading material enjoyed by the single students may have enriched their backgrounds and influenced their achievement scores since a taste for reading, practice in reading, and knowledge and experience from reading are skills which aid in scholastic achievement.

The groups also differed as to the number of extra-curricular activities participated in and the number of honors and elective offices held. However, the 434 elective offices and honors found in the 75 single students over a nine-year period as compared to the 181 of the married students over a five-year period were not as great as the figures suggested as no married students could participate in the last three years.

The counselors' follow-up records indicated that an average of 47.3 per cent of the schools' graduates between 1956 and 1964 actually enrolled in some college and that 36.7 per cent of those enrolled received degrees. Therefore, the thirty-eight single students who enrolled out of the sixty-eight who planned to go to college compared well with the schools' nine-year average. One of the most common criticisms of an early marriage is that it reduces the

young married person's potential usefulness to himself and his society. The fact that twenty-seven married students who had planned to attend college never enrolled supports this criticism.

From Table XIX it was concluded that the single students had more cultural advantages, such as hobbies, facilities for home reading, and participation with his peers, than had the married subjects.

Summary of Statistical Analysis

From the tables and computation used in the analysis, it was determined that the single group and married group differed significantly in backgrounds, test scores, problem areas, interests, and experiences.

Five of the six socio-psychological and socio-economic variables were significant. Only sibling rank was found to be statistically insignificant.

As shown by a t test of difference between means, there were significant differences between the groups on all tests and subtests except the Survey of Study Habits and Attitudes and areas FLE and HF on the Mooney Problem Check List.

From a comparison of the number of items marked in each area of the Mooney Problem Check List for the married

subjects with two markings, it was concluded that a greater number of problems were felt before marriage and fewer but quite different problems were felt after marriage.

The two groups were different also as to the type and number of items marked by the counseling key in areas of attitudes toward others, attitudes toward courses, students' limitations and study habits.

A comparison of the two groups on eight items from the Personal Data Sheets indicated that the single subjects had far more opportunities to participate with their peers, more cultural advantages, and better chances for going to college than had the married subjects. As evidenced by the great difference in the number of (1) hobbies, single, 103, married, 17; (2) books, single, 3871, married, 393; (3) newspapers, single, 126, married, 61; and (4) magazines, single, 319, married, 101, the cultural advantages were greater for the single subjects than for the married.

CHAPTER BIBLIOGRAPHY

1. Bossard, James, and Eleanor S. Boll, The Sociology of Child Development, New York, Harper and Brothers, Publishers, 1960.
2. Brown, William F., and Wayne H. Holtzman, Manual to Accompany the Survey of Study Habits and Attitudes, New York, The Psychological Corporation, 1956.
3. Cruze, Wendell W., Adolescent Psychology and Development, New York, Ronald Press Company, 1953.
4. Ivins, Wilson H., Student Marriages in New Mexico Secondary Schools, Albuquerque, The University of New Mexico Press, 1954.
5. Landis, Judson T., "Attitudes and Policies Concerning Marriage Among High School Students," Marriage and Family Living, XVIII (May, 1956), 128-131.
6. Levy, John, "A Quantitative Study of Behavior Problems in Relation to Family Constellation," American Journal of Psychiatry, LXXXVII (January, 1931), 637-654.
7. Mooney, R. L., "Surveying High School Students' Problems by Means of Mooney," Educational Research Bulletin, XXXI (March, 1942), 57-69.
8. Rose, Alvin W., and Helen C. Rose, "Intelligence, Sibling Position, and Socio-cultural Background as Factors in Arithmetic Performance," Arithmetic Teacher, VII (February, 1961), 50-56.
9. Turner, James W., "A Survey of Student Marriage in Missouri Public Schools," unpublished doctoral dissertation, School of Education, University of Missouri, Columbia, Missouri, 1961.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The problem of this study was to identify some of the characteristics of tenth-grade girls which may lead to early marriage. The isolation of these characteristics was accomplished by comparing a group of single high school girls with a group of married high school girls on the basis of fifteen variables.

The population used was from a rural high school which began its guidance program in September, 1956. The 150 subjects were taken from the high school girls enrolled between 1956 and 1964. From the 102 students who married while attending high school during this period, 75 girls were selected as the subjects for the married group. The single group consisted of 75 girls randomly selected from the unmarried population. No boys were used as subjects because only seventeen boys married during the period studied. Beginning in September, 1956, all first-semester high school students were administered a number of tests. Among these

were the Otis Mental Ability Test, Iowa Tests of Educational Development, Differential Aptitude Test, Survey of Study Habits and Attitudes, and the Mooney Problem Check List.

In addition to the formal testing program, all tenth-grade students filled in a Personal Data Sheet. Data from the permanent records cards and the instruments listed above served as a basis of comparison between the two groups.

As all of the fifteen variables were not adapted to the use of a single statistical method, the analysis was divided into four steps. The first step in the analysis of the data involved comparing the two groups on the basis of certain socio-psychological and socio-economic factors: sibling rank, status of home, parents' occupation, and parents' education. The statistical procedure used was chi-square. In the next step in the analysis of the data, Fisher's t test for significance of difference between means was used to compare the two groups as to junior high school grade-point average, mental ability, aptitude, scholastic achievement, and study habits and attitudes. The third phase of the analysis involved comparing the two groups as to the problems identified on the Mooney Problem Check List and the areas of difficulty revealed by the Survey of Study Habits and Attitudes. No statistical computation was used

in this comparison. The last phase compared the two groups as to information from the subject's Personal Data Sheet. Ten hypotheses were tested in the study.

The first hypothesis stated that the sibling rank would be significantly less for the girls who married early when compared to that of the girls who remained single through school. Findings of this investigation did not support this hypothesis in the four relationship areas.

The second hypothesis stated that the number of broken homes would be less for the girls who remained single through high school when compared to that of the girls who married early. Evidence from this study supported this hypothesis. Direction of relationship indicated that broken homes were found more often in the married subjects than in the single subjects.

The third hypothesis stated that the mean mental ability score as measured by the Otis Quick-Scoring Mental Ability Test would be less for the girls who married early when compared to that of the girls who were unmarried through high school. Evidence from this study supported this hypothesis. Direction of relationship indicated that the mean mental ability score was less for the married group than for the single group.

The fourth hypothesis stated that the mean scores of the study habits and attitudes would be less for the girls who married early when compared to that of the girls who remained single through high school. Findings in this study did not support this hypothesis. The mean study habits and attitudes score was less for the married subjects than for the single subjects; however, the difference was not great enough for statistical significance.

The fifth hypothesis stated that the mean achievement scores would be less for the students who married early when compared to those of the students who remained single through high school. Evidence in this investigation supported this hypothesis. Direction of relationship indicated that the mean achievement scores were less on each subtest and on the composite score for the students who married early than for the single subjects. The mean achievement test scores were less on every subtest and on the composite score for the students who married early than for the single subjects. The differences between the groups on all of the mean subtest scores and the mean composite scores were significant at the .001 level of confidence except the subtest Reading Natural Science, which was significant at the .01 level.

The sixth hypothesis stated that the mean aptitude scores would be less for the married subjects than for the single girls. Evidence obtained in this study supported the hypothesis. Direction of relationship indicated that more early marriages were found among students with lower aptitude, and fewer early marriages were found among students with higher aptitude.

The seventh hypothesis stated that the number of years in school will be less for the parents of the girls who married early when compared to that of the parents of the girls who remained single through high school. Findings in this study did not support this hypothesis in the two relationship findings. Both the fathers and mothers of the married subjects had more years in school than the parents of the single group.

The eighth hypothesis stated that occupational scores of the fathers of the single students would be less than those of the fathers of the married students. Evidence obtained in this investigation supported this hypothesis. Direction of the relationship indicated that the single subjects' fathers had higher occupational-level positions than the fathers of the married subjects.

The ninth hypothesis stated that for the girls who remained single through high school, there were fewer employed mothers than for the girls who married early. Findings in this study supported this hypothesis. Direction of relationship indicated that for the single subjects who remained single through high school there were fewer employed mothers than for the girls who married early.

The tenth hypothesis stated that the mean junior high school grade-point average would be less for the married students than for the single students. Evidence of this study supported this hypothesis.

The number of problems on the Mooney Problem Check List identified by the married subjects was 861 less than that marked by the single subjects. The difference was greater for the single subjects at the .001 level in five of the eleven areas, at the .01 level in one area and .02 level in one area, .05 in two areas, and was not significantly different in two areas.

Only four (5 per cent) of the seventy-five marriages were known to have been pregnancy provoked. This disagreed with the findings of Turner (2), who found 46.5 per cent of the marriages were caused by premarital pregnancy and with the studies made by Ivins (1).

Conclusions

A research plan was developed which allowed for comparison of girls who marry early with a matching group of girls who did not marry early. The findings reported from comparative analyses suggest the following conclusions:

1. Sibling rank was not a factor in differentiating single and married girls;
2. There is a greater probability that girls from broken homes will marry early than those from intact homes;
3. The mental ability scores of both groups were above national norms; however, the mental ability scores were higher for the single girls than for the married subjects;
4. The Survey of Study Habits and Attitudes score was not a factor in differentiating single and married subjects; however, the items on the counseling key were effective in differentiating the subjects of the two groups;
5. The single subjects had achieved more in academic subject matter areas than the married subjects;
6. The single subjects indicated a higher potential or aptitude than the married subjects.
7. Facts concerning the educational backgrounds of the parents of the subjects produced substantial evidence

that the parents of the married subjects had better educational backgrounds than the parents of the single subjects;

8. The fathers of single subjects had higher occupational level positions than the fathers of married subjects;

9. There is a greater probability that the daughters of the employed mothers will marry early than those from non-working mothers;

10. Girls who marry early have lower junior high school grade-point averages than those who marry later;

11. Facts concerning the characteristics of the girls who married early gave evidence that the following is a composite picture of the potential high school bride: the chances are that she is from a broken home; has a working mother and a father in lower occupational level; her scores in mental ability, aptitude, and achievement, although above national norms, will be significantly below the single girls in the class; she will have no hobbies, few books, newspapers, and magazines; and she will have fewer activities and plans for college than her classmates.

Recommendations

As a result of this study, it is recommended that:

1. The high schools set up classes in study skills and remedial reading;
2. The schools offer more opportunities for reading material to be taken home;
3. Small activity groups be set up to provide at least one extra-curricular activity per day for each student;
4. A regression equation be formulated whereby the most significant factors can be used in predicting early marriages in high schools;
5. More research be done in the socio-psychological significance of "interior" and "last" sibling positions;
6. More research be done on causes of early marriage.

CHAPTER BIBLIOGRAPHY

1. Ivins, Wilson H., Student Marriages in New Mexico Secondary Schools, Albuquerque, The University of New Mexico Press, 1953.
2. Turner, James W., "A Survey of Student Marriage in Missouri Public Schools," unpublished doctoral dissertation, School of Education, University of Missouri, Columbia, Missouri, 1961.

APPENDIX

PERSONAL DATA SHEET

School _____ Date _____

Student's Name _____ Sex _____
Last First Middle

Age _____ Birth _____
Year Month Day

Home Address _____ Phone No. _____

FAMILY RECORD

Father Mother

1. Name _____

2. Living Yes ___ No ___ Yes ___ No ___

3. If dead, your age at death _____
Your age Your age

4. Nationality _____

5. Occupation _____

6. Education (Highest) _____

7. Do you have a step-parent? No ___ Yes ___

8. Do you live with a guardian? No ___ Yes ___

9. Number in family:

Brothers, older _____ younger _____

Sisters, older _____ younger _____

Half-step-brothers, older _____ younger _____

Half-step-sisters, older _____ younger _____

10. Do other relatives live in your home? _____ Who _____
 _____ How long? _____
11. Siblings with college training? Brothers _____ Sisters _____
12. Church preference of parents? _____
 Your church preference? _____

PERSONAL DATA:

13. What is, or will be, the most determining factor as to whether you will go to college? Explain _____

14. Do you take part in athletic sports and games? _____
 What? _____
15. What are your favorite kinds or types of recreation? _____

16. What are your special hobbies or interests? _____

17. Do you enjoy reading? _____ What kinds of books do you enjoy best? _____
18. Do you play a musical instrument? _____
 What? _____
19. Do you belong to any clubs or organizations, or activities outside of school? _____ What? _____
20. In what school clubs, organizations or activities have you taken part? _____

21. In which of the following activities would you like to take part while in high school? Name kind:
- Athletics _____ Music _____
- Literary _____ Dramatics _____ Publications _____
- Student Office _____ Other Activity _____
22. Do you regularly attend church? ___ Sunday School _____
- Sing in the Choir? _____.
23. Do you have a job now? ___ Do you work to earn money while in high school? _____.
24. Do you have regular home duties or responsibilities? ___
- If so, what are they? _____
- How much time does it take each school day? _____
25. Will the time you spend on any of these activities interfere with the time for study? ___ Explain: _____
26. What study or studies do you like best? _____
- What study or studies do you like least? _____
27. What study have you found most difficult? _____
- Easiest? _____
28. How much time do you spend in study outside of school?
- _____
- A. Do you have a good, quiet place with adequate lighting in which to study? ___ Explain: _____

29. Have you received any special recognition for excellence in school work, such as prizes, honors, special mention?
 _____. What? _____
30. How do you like school? Check one. a. Like it very much ____ b. Like it sometimes ____ c. Dislike it very much ____.
31. If you could have your own choice completely, what vocation would you like to enter? _____
32. As you see it now, what vocation will you probably enter? _____
- Is any person, or circumstance, influencing you in making your vocational choice? ____ Explain _____
33. Is there a radio in the home? Yes _____ No _____
- What type of programs do you like best? _____
- Do you listen to news casts? Yes _____ No _____
34. What newspapers come to your home? _____
- What magazines? _____
- How many books do you have in your home? _____
35. What traveling have you done? _____
36. Do you have any physical defects? ____ What? _____
- Are you sensitive about them? Very ____ Little ____ No ____
37. What do you think is your most important problem? (If you need more space to explain, use the back of this sheet). _____

NAME _____

EDUCATIONAL PLAN

Freshman Sophomore

Extra-curricular Extra-curricular

Honors and offices Honors and offices

Name _____

Transcript sent to
College _____

Date _____

EDUCATIONAL PLAN

Junior

Senior

Extra-curricular

Extra-curricular

Honors and offices

Honors and offices

BIBLIOGRAPHY

Books

- Baer, Max F., and Edward G. Roeber, Occupational Information, Chicago, Science Research Associates, Inc., 1951.
- Bossard, James H. S., and Eleanor S. Boll, The Sociology of Child Development, New York, Harper and Brothers, Publishers, 1960.
- Brown, William F., and Wayne H. Holtzman, Manual to Accompany the Survey of Study Habits and Attitudes, New York, The Psychological Corporation, 1956.
- Cronback, Lee J., Essentials of Psychological Testing, New York, Harper and Brothers, Publishers, 1960.
- Cruze, Wendell W., Adolescent Psychology and Development, New York, Ronald Press Company, 1953.
- Cutts, Norma E., and Nicholas Moseley, The Only Child, New York, G. P. Putnam's Sons, 1954.
- Hartley, Eugene L., and Ruth E. Hartley, Fundamentals of Social Psychology, New York, Alfred A. Knopf, 1955.
- Ivins, Wilson H., Student Marriages in New Mexico Secondary Schools, Albuquerque, University of New Mexico Press, 1953.
- Landis, Paul H., Adolescence and Youth, New York, McGraw-Hill Book Company, Inc., 1945.
- Travers, R. M. W., An Introduction to Educational Research, New York, The Macmillan Company, 1958.
- Warner, Lloyd W., Marchia Meeker, and Kenneth Ellis, Social Class in America, Chicago, Science Research Associates, 1949.

Weill, Blanche C., The Behavior of Young Children of the Same Family, Cambridge, Harvard University Press, 1928.

Articles

Bohannon, E. W., "The Only Child in a Family," Pedagogical Seminary, V (April, 1898), 306-310.

Bossard, James H. S., and Eleanor S. Boll, "Personality Roles in the Large Family," Child Development, XXVI (March, 1955), 71-78.

Burchinal, Lee G., "Adolescent Role Deprivation and High School Age Marriage," Marriage and Family Living, XXI (November, 1959), 378-384.

_____, "Do Restrictive Policies Curb Teen Marriage?" Overview, I (March, 1960), 72-73.

_____, "Does Early Dating Lead to School Age Marriage?" Iowa Farm Science, IX (February, 1959), 11-12.

_____, "Social Status, Measured Intelligence, Achievement, and Personal Adjustment of Rural Iowa Girls," Sociometry, XXII (March, 1959), 75-80.

_____, "What about School-Age Marriages?" Iowa Farm Science, XXI (June, 1958), 12-14.

Cavan, Ruth Shonle, and Grace Beling, "A Study of High School Marriages," Marriage and Family Living, XX (August, 1958), 293-295.

Fallon, Berlie J., and James W. Tunnell, "High School Marriages, Fad or Fact?" The Texas Outlook, XLVII (December, 1928), 18-19.

Fenton, Norman, "The Only Child," Pedagogical Seminary, XXXV (December, 1928), 546ff.

- Garner, Kate B., and Irwin W. Speery, "Scholastic Achievements of Married and Unmarried High School Students," National Association of Secondary School Principals Bulletin, XLV (May, 1961), 79-84.
- Hanson, E. H., "Are High School Marriages a Good Idea?" Education, LXXX (April, 1960), 510.
- Kirkendall, Lester A., "Now It's Marriage in the High School," Oregon Education Journal, XXVI (September, 1951), 8-30.
- _____, "School Bells and Wedding Chimes," National Parent Teacher, XLIX (March, 1955), 8-10.
- Koch, Helen L., "Some Emotional Attitudes of the Young Child in Relationship to Character of His Sibling," Child Development, XXVII (December, 1956), 303-426.
- Landis, Judson T., and Kenneth C. Kidd, "Attitudes and Policies Concerning Marriage Among High School Students," Marriage and Family Living, XVIII (May, 1956), 128-136.
- Levy, John, "A Quantitative Study of Behavior Problems in Relation to Family Constellation," American Journal of Psychiatry, LXXXVII (January, 1931), 637-654.
- Mooney, R. L., "Surveying High School Students' Problems by Means of the MPCL," Education Research Bulletin, XXXI (March, 1942), 57-69.
- Moss, J. Joel, and Ruby Gingles, "The Relationship of Personality to the Incidence of Early Marriage," Marriage and Family Living, XX (November, 1959), 373-377.
- National Opinion Research Center, "Jobs and Occupations," Opinion News, IX (September, 1947), 3-13.
- Neal, Eva, "The Only Child," Mental Hygiene Bulletin, XII (November 1927), 71-73.

- Rose, Alvin W., and Helen Cureton Rose, "Intelligence, Sibling Position, and Sociocultural Background as Factors in Arithmetic Performance," Arithmetic Teacher, VIII (February, 1961), 50-56.
- Simmons, Dale D., "Children's Ranking of Occupational Prestige," Personnel and Guidance Journal, XLI (December, 1962), 332-333.
- Speery, I. V., and Ruth Thompson, "Marriage Among High School Students," National Association of Secondary School Principals Bulletin, LXV (November, 1961), 100-106.
- Taulbee, Calloway, "Dealing with the Student Marriage Problem," National Association of Secondary School Principals Bulletin, LXI (April, 1957), 146-147.

Reports

- Bureau of Census, "Current Population Reports, Population Characteristics, Marital Status, and Family Status," Census Reports, LVI (April, 1956), 6.

Unpublished Material

- Bellerose, Dorothy, "Behavior Problems of Children," unpublished master's thesis, Department of Social Work, Smith College, Northampton, Massachusetts, 1927.
- Inselberg, R. M., "Social and Psychological Factors Associated with High School Marriage," unpublished research paper, Department of Sociology, Ohio State University, Columbus, Ohio, 1960.
- Turner, James W., "A Survey of Student Marriages in Missouri Public Schools," unpublished doctoral dissertation, University of Missouri, Columbia, Missouri, 1961.
- Ward, Anne, "The Only Child," unpublished master's thesis, Department of Social Work, Smith College, Northampton, Massachusetts, 1930.

Tests

Bennett, George K., Harold G. Seashore, and Alexander G. Wesman, The Differential Aptitude Test, New York, The Psychological Corporation, 1959.

Iowa Tests of Educational Development, Chicago, Science Research Associates, Inc., 1960.

Otis, Arthur S., Otis Quick-Scoring Mental Ability Test, Yonkers-on-Hudson, New York, World Book Company, 1957.