SOCIAL CORRELATIVES OF DESIRE FOR CHILDREN

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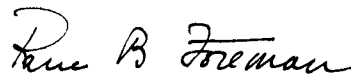
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SOCIAL CORRELATIVES OF DESIRE FOR CHILDREN

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CHAPTER I INTRODUCTION

1. The Problem

Desire for children among American youth has been studied by many research workers, particularly in the last decade. The largest part of their investigations have merely indicated given degrees of expressed desire for children in given test populations. A few have attempted to determine relationships between selected social factors and this phenomenon. Studies which examine the degree of significance assignable to revealed differences in indicated desire are, however, almost non-existent. Differences established are often implied as representing reliably significant variations but reliability measures for them are seldom shown. Need for a statistical study determining the significance of these differences, therefore, seems obvious on both theoretical and practical counts.

2. Purpose of this Study

The objective of the present study is to analyze statistically relationships between the number of children which college students say they desire and selected social differentials. Specifically, it is proposed to ascertain degrees of association between indicated numbers of children desired and (1) family background factors, (2) personal attributes, and (3) educational experiences of students interviewed. Test items pertinent to these three categories of experience certainly do not represent all factors in desire for children. Those to be used were believed to be indicative social variables when this study was proposed. A review of findings concerning relationships discovered may furnish guideposts for future research.

3. Theoretical Framework for the Study

Attitudes verbally expressed, do not necessarily represent informants' true values. It is assumed, however, for this study that questionnaire responses indicating desire for children are indices of true attitudinal values. Attitudes defined as preparatory interactional sets, defining a social situation, can probably be assayed directly only through time sequence observations of behavior in given subjects. Concerning the attitude scaling movement, Clifford Kirkpatrick has contended:

> "All attitude measurement is indirect measurement in terms of an attitude index. . . . . . . there is reason to think that a certain amount of attitudinal inconsistency is to be expected and should be analyzed into various types. Inconsistency of behavior forms is inconsistency between the three components of attitudinal behavior (a) attitudes, (b) overt verbal behavior or opinion, (c) gross bodily behavior with reference to the object or situation. All three are realities and each is an index of the other two in the sense that some inference or prediction can be made from one variable to another."[1]

Acceptance of this contention for purposes of the present study permits analysis of association between numbers of children verbally expressed as desirable, or the "attitude index" obtained, and selected social characteristics found in the population sample. Statistical tests of significance may reveal chance factors to be the only presumable basis for associations found. This would necessitate rejection of any systematic inferences based on the relationships implied. Conversely, reasonable assurance of reliability may be assumed if statistical tests reveal a relative absence of chance

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[1] Clifford Kirkpatrick, "Assumptions and Methods in Attitude Measurements," American Sociological Review, 1:1 (February, 1936), 75-88. See also Gordon W. Allport, The Use of Personal Documents in Psychological Science, Social Science Research Council, 1942, pp. 24 et passim, for a review of Samuel A. Stauffers', "An Experimental Comparison of Statistical and Case History Methods of Attitude Research" (Unpublished Ph. D. thesis, University of Chicago); Louis Gottschalk, et al, The Use of Personal Documents in History, Anthropology, and Sociology, Social Science Research Council, 1945, pp. 223-224.

operating between variables measured. Since the problem involves measurement of pencil and paper reactions, it is imperative that the probability of chance association be interpreted stringently before observed relationships are considered to reveal true values.

4. Hypothesis of the Study

This study, then, is to be an experimental test of the hypothesis that given social characteristics are uniformly associated with opinions regarding numbers of children desired. This hypothesis is based on the assumption that desire for children is motivated, in major degree, by family instruction or informal learning, by personal characteristics or objectives related to status interests, or by values derived from formal education.

5. Source of Data

Data have been obtained through use of a schedule devised for this study. A copy of this form with its instruction sheet is included as an appendix.[2] Information obtained includes the following:

I. Number of Children Desired
II. Family Background Items
    A. Size of Home Resident Community
    B. Education of Father
    C. Education of Mother
    D. Number of Siblings in Student's Parental Home
    E. Order of Student's Birth
    F. Number of Children in Fathers' Parental Home
    G. Number of Children in Mothers' Parental Home
    H. Fathers' Occupations
III. Personal Attributes
    A. Sex
    B. Age
    C. Veteran Status
    D. Religious Preference

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[2] Below, pp. 51-52.

        E. Church Membership
        F. Marital Status
        G. Primary Source of Sex Education
  IV. Educational Experiences
        A. Academic Class
        B. Academic School of Enrollment

To insure effectiveness, a preliminary schedule was submitted to competent judges for criticism. A revision was submitted to a pre-test group of 50 students. Ambiguous questions were then eliminated or modified for use in the test schedule.

An approximate five per cent sample of undergraduate college students attending Oklahoma Agricultural and Mechanical College during the second semester of the 1948-49 academic school year was obtained as follows: First, 300 questionnaires were distributed in sociology, agronomy, engineering, and English classes; second, volunteer interviewers, who had been instructed on the test procedure, obtained 200 additional schedules; third, upon editing, 10 schedules were found to be obviously inaccurate or incomplete, necessitating their elimination; fourth, the remaining schedules were divided into freshmen, sophomore, junior, and senior groups which revealed the 490 usable schedules were roughly representative of each class; fifth, they were also roughly indicative of the distribution between veteran and non-veteran students; sixth, too many women, proportionately, had been interviewed. To achieve a more representative sample in this regard, schedules from 10 women registered in the School of Education and proportioned by class, according to demand placed upon the sample by known characteristics of the parent universe, were selected from the usable schedules obtained and eliminated.

It has been observed that through this above pattern of selection it was impossible to control school of registration representatively. An

over-concentration of students enrolled in Commerce, Arts and Sciences, and Education was evident. Other characteristics of the student population are unknown and uncontrolled.

6. Statistical Methodology

The statistical analysis of the data in this study involved four distinct steps.

First, data were coded, transferred to cards, and these steps checked. Classification and tabulation were accomplished by employing categories satisfying rules of logical division: analytical categories chosen were selected as exhaustive, exclusive, and based upon a single principle of differentiation.

Second, the data were arranged into tables according to available characteristics followed. Different socio-cultural traits or attributes of students were used, in turn, as independent variables and indicated number of children desired as the dependent variable. This was to determine coordinate relationships existing between variables chosen at each selected interval, level, or categorical position on the independent variable. Resulting values on the dependent variable were expressed as either arithmetic means or percentages, depending upon the nature of the coordinate relationship analyzed. As far as possible, data pertinent to each independent variable were divided to give the closest approximation to equal numbers of cases in the categories assumed. This was to get optimum sized sub-divisions, since reliability in all measures of implied tendencies depend, among other conditions, upon the number of included cases in selected strata. Categories of unequal size will be noted where they appear in interpretations of implied relationships.

Third, contingency coefficients were computed between independent and dependent variables. Contingency coefficients are estimates used to determine

the degree of association between variables which are categorical or said to
exist or not exist rather than to exist in degree. A more discriminating
estimate of obtained association may be achieved by dividing the contingency
coefficient computed from the data by the maximum association value possible
within the limits of the number of cells used in cross-tabulation. Yule and
Kendall have presented the maximum possible values of contingency coefficients
"C" for cross-tabulations of attributes, each divided into the same number
of categories.[3] Table 1 gives these maximum values. In utilizing this

Table 1. - The Maximum Values of C for Correlated Attributes Divided into
the Same Number of Categories.

2 by 2-fold	C cannot exceed	.707
3 by 3-fold	C cannot exceed	.816
4 by 4-fold	C cannot exceed	.866
5 by 5-fold	C cannot exceed	.894
6 by 6-fold	C cannot exceed	.913

coefficient in the present study, a figure mid-way between the values shown
above was used when the number of categories employed in dividing attributes
was not indicated by the table. All values of C reported in this study have
been adjusted by this method.

To determine the reliability of these C-values, a chi-square test of
significance for the independence of two attributes was used. This test is,
in effect, a test which indicates whether associations found are any greater
than would be expected on basis of chance. Chi-square is converted into
probability values (values indicating probability of chance) by use of
standard tables. These probability values are expressed in this study by use

[3] Abstracted from, John G. Peatman, Descriptive and Sampling Statistics,
p. 97.

of the symbol "P". A "P" value of .10 or larger indicates that associations found may be due to chance in 10 cases out of 100; hence, this order of relationship is not highly reliable. P values of .05 and .01 imply that in five and one cases, respectively, out of 100 the observed relationship is due to chance.

The five per cent confidence level (P=.05) was arbitrarily chosen for this study as the lower confidence level for accepting or rejecting associations implied by the statistical measures employed. All confidence levels are arbitrary and must be chosen in advance by the investigator. Most attitudinal studies use the five per cent level chosen for this investigation.[4] Since, as has been indicated, this study uses pencil and paper reactions as indices of attitudinal behavior, it is necessary to choose a rigid reliability measure for associations revealed.

Fourth, some of the data included in this investigation were classified as variate data, attributions or qualities existing to some degree. Hence, product-moment correlation coefficients were used on occasion to determine degrees of association between independent and dependent variables.

Reliability of product-moment coefficients is determined by computation of the standard error of the coefficient. To make this measure comparable to the P value, explained above, it is converted into a value expressing the possibility in 100 cases that the standard error may result from chance. Thus, both reliability measures used in this study give equitable values and are shown as P. Statistical correlations with accompanying probability values of .05 are designated as "significant"; those with probability values of .01 or lower are referred to as "highly significant" in this study.

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[4] For further discussion of the confidence level, see, Margaret J. Hagood, Statistics for Sociologists, pp. 436-456.

CHAPTER II REVIEW OF LITERATURE

A review of literature dealing with attitudes of American youth concerning desire for children, as mentioned in the introduction to this study, has revealed a number of works which have been presented without due consideration to underlying methodological problems. Actually, sampling procedures used have been on occasion vague and numerical data clearly subject to challenge. Some studies have ignored sampling entirely and presented conclusions therefore which refer only to the specific test population considered. Few of the studies reviewed have attempted through use of standard tests of significance to determine actual relationships between indicated number of children desired and given social influences. Associations between assumed variables may have been erroneously reported. Certain conclusions from more substantive available studies do offer direct suggestions for current effort.

Howard M. Bell in a depression study of 13,528 Maryland youth, between 16 and 24 years of age, found eight per cent reporting no eventual desire for children.[1] No important sex differences in indicated eventual desire were noted, but 84 per cent of the boys hoped to have at least one child; 89 per cent of the girls expressed similar desires. Bell further concluded that the closer in terms of years youth came to parenthood, the more favorable it was regarded: for youth of both sexes between 21 through 24 years of age expressions of eventual desire for children were more frequent than for youth between 16 and 20.

The great majority of the youth interviewed in Bell's research, agreed that they wanted fewer children than their parents had reared: the youth desired 2.7 children in contrast with 4.7 children in their own parental homes.

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[1] Howard M. Bell, Youth Tell Their Story, pp. 36-42. The averages reported in this study are median values.

No important differences were indicated by youth coming from communities of different size: farm youth desired 2.8 children; village youth, 2.7; town youth, 2.7; and city youth, 2.7. Slight differences were found between youth of different religious affiliation: Jewish youth desired 3.0 children; Catholic, 2.9; protestant, 2.7; and those with no church affiliation, 2.6. It also appeared that young married individuals tend to desire slightly fewer children than those still single but median differences for these groups were very small.

Bell studied sources of sex information of youth. He found principal informants to be contemporaries for 66 per cent of the boys, 40 per cent of the girls. The home, which includes parents and other immediate relatives, was reported as the chief source of sex information by 45 per cent of the girls, 17 per cent of the boys. Schools were credited by about eight per cent of all youth, four per cent indicated books, one per cent listed movies. Since substantially larger proportions of younger youth reported the home to be the chief source of sex information, Bell observed that parents of this generation may be more alert to this responsibility than were parents of similarly aged children some ten years before. However, since only about six out of every ten youth of 16 years received most of their sex instruction from their parents, Bell stated that parents of this group are in no way uniform in fulfilling these responsibilities.

Wayne C. Neely surveyed 200 sociology students at the University of Iowa and the entire student body of two small Iowa denominational colleges in 1936.[2] He summarized his findings as revealing a tendency for men to desire

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[2] Wayne C. Neely, "Family Attitudes of Denominational College and University Students," American Sociological Review, 5:4 (August, 1940), 512-522.

somewhat larger families than women. Differences between sex averages were smaller in 1936 than had been observed in 1929 when a similar survey was made. The earlier study indicated an average of 3.20 children desired by men; 3.01 by women.[3] Comparable figures for 1936 were 3.03 and 3.00. Neely observed a tendency for students in 1936 to express desires for childless marriages more frequently than those sampled in 1929. A trend toward the modal size family of two children was indicated.

As a phase of a larger study of student judgments pertinent to marriage, William S. Bernard sought in 1937-38 to measure opinions revealing desired family size.[4] Approximately 500 students, evenly divided for sex, from each major academic division of the University of Colorado and from all four undergraduate year levels, were studied through questionnaire and interview methods. The median group, the largest class, indicated two to three children as a desirable family size. As high a percentage desired four children as desired either one or none at all.[5] His study suggested about three children as the average number considered most desirable. Lemo D. Rockwood and Mary E. N. Ford reviewed several studies which showed the mean average number of children desired to be about three.[6]

A survey by Calvin F. Schmid and Gladys Engel of 400 University of Washington students in 1941 disclosed that women desire larger families

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[3] These averages appear to be arithmetic means, though explicit designation is not given.

[4] William S. Bernard, "Student Attitudes on Marriage and The Family," American Sociological Review, 3:3 (June, 1938), 345-361.

[5] Percentages are not given.

[6] Lemo D. Rockwood and Mary E. N. Ford, Youth, Marriage, and Parenthood, pp. 134-145.

than men.[7] A critical ratio of 5.4 for percentage differences between men

and women desiring families of three or more children substantiated this

difference as statistically significant. The authors suggested as a possible

reason for this difference the fact that many more males worked their way

through school and as a result had more realistic appreciation of expenses

involved in family rearing. Conversely, women perhaps had devoted more

thinking to plans for a future home; men viewed parental roles hazily.

Approximate income of parents, number of siblings in the student's home,

religious preference, and church attendance were also investigated as cor-

relatives of students' indicated preferences in family size. Parental

income correlated with desired number of children at the level of .03; num-

ber of siblings, .18; church attendance, .15. Respondents professing no

religious preference were found to desire significantly fewer children than

either protestant, Catholic or Jewish students. Among the three religious

groups, Jewish students signified strongest desire for small families, but

since this group was quite small, the reliability of this observation was

questioned by the authors.

A student opinion survey by Harold T. Christensen made at Brigham Young

University in 1946-47 provides additional information.[8] His research, based

on 1600 students, was primarily designed to investigate the social setting of

high Mormon fertility. Mormon students expressed desire for children ranging

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[7] Calvin F. Schmid and Gladys Engel, "Attitudes Concerning Size of Family," *Sociology and Social Research*, 27:2 (November-December, 1942), 131-134.

[8] Harold T. Christensen, "Mormon Fertility: A Survey of Student Opinion," *American Journal of Sociology*, 53:4 (January, 1948), 270-275. The averages reported in this study are arithmetic means.

principally between four and five, averaging 4.64. An earlier study by Christensen at the same university had indicated that an average of 4.30 children was desired by male and female students taken together. This variance was explained as probably due to differences in sampling procedures. The earlier study had not distinguished single from married or Mormon from non-Mormon students.

Comparison of married Mormon with single Mormon males observed in 1946 revealed that marriage had little or no effect in changing desired size of family: married Mormon men desired an average of 4.42 children; the single, an average of 4.39 (no critical ratio listed). Single non-Mormon males wanted an average of one less child per family than single Mormon males (critical ratio, 2.0). Christensen believed this difference to be due to Mormon religious influence. This inference was supported by evidence from an earlier study of University of Wisconsin students, also under his sponsorship, which disclosed the median number of children desired to be 2.92. The Utah study revealed that Mormon women desired an average of one-half child larger families than are desired by Mormon men. A critical ratio or 10.6 suggested this difference to be significant and led Christensen to conclude that Mormon women hoped for larger families than did Mormon men.

Students sampled at Brigham Young University wanted smaller families than the families in which they were reared. A critical ratio of 2.7 implied statistical significance for this difference. Males, more than females, desired smaller families than their parents. This was shown by the fact that 48.4 per cent of the males indicated desire for fewer children than their parents had reared; only 32.3 per cent, more children. The respective percentages for females were 38.8 and 42.7. Critical ratios indicated statistical significance. Students from large families desired larger families

than the average in this test group, implying that size of parental family is related positively to size of family desired by students.

A recently released study at Washington State College, made by Arlene Sheeley, Paul H. Landis, and Vernon Davies, included review of opinions held by 307 college daughters and their mothers.[9] Four children were considered ideal by a larger percentage of the total test group than any other number. Three ranked next, then two. Only one person each considered none and one to be ideal. Rural mothers and daughters desired larger families than their urban equivalents. This led the authors to assume this difference to be related to rural-urban birth rate differentials.

This review of literature discloses several general conclusions which are held to be pertinent and directly suggestive to the present investigation:

(1) College students expressed desire for families of about three children. Qualification is necessary with reference to Mormon students.

(2) Youth tended to desire fewer children than the number present in their parental families. This tendency was particularly noted among those coming from large families; an opposing indication was exhibited by youth coming from extremely small families. There was suggested a direct relationship between size of parental family and the number of children expressed as desirable.

(3) Females tended to desire larger families than males. This was not uniform in all orienting studies reviewed.

(4) Marriage had little effect on desire for children; it may act as an influence associated with decreasing expressed desires.

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[9] Arlene Sheeley, Paul H. Landis, and Vernon Davies, Marital and Family Adjustment in Rural and Urban Families of Two Generations. Pullman: Washington Agricultural Experiment Station, Bulletin No. 506, 1949, pp. 17-18.

(5) Religious allegiance, though evidence was not uniform, may shape opinions of youth toward greater desire for children.

(6) Age and parental income was related in a slight positive manner with expressed desires of youth for children.

(7) The size of community in which youth live had insignificant relationship to indicated desire for children. This may be qualified in the case of females or in like sex comparison of gross rural-urban variations.

(8) Modern parents appear to be instructing their children regarding sex more frequently than did the parents of earlier generations.

CHAPTER III   FAMILY BACKGROUND FACTORS AND INDICATED DESIRE
FOR CHILDREN

1. Introduction

<u>Typical home relationships</u> experienced by youth has been reported to be
associated with future marital happiness.[1]   These same experiences may also
structure indicated desire for children.   Further, it has been held that
mothers exert greater influence than fathers in shaping childrens' attitudes
and sentiments.[2]   This might result from the typically more intimate associa-
tion between mothers and younger children and in the case of girls, the
training through adolescence by mothers to primary sex roles.   Implications
of these views are examined below in terms of an interest in relationships
between chosen family background factors and indicated desire for children.[3]
The family background items to be considered are; size of home resident
community, education of father, education of mother, number of siblings in
student's parental home, order of student's birth, number of children in
fathers' parental home, number of children in mothers' parental home, and
fathers' occupational class.

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[1] Ernest W. Burgess and Leonard S. Cottrell, <u>Predicting Success or
Failure in Marriage</u>, pp. 260-261.

[2] Cited in Robert T. McMillan, "The Influence of Fathers and Mothers
Upon the Social Traits of Children," <u>Southwestern Journal</u>, 2:3 (1946), 211.

[3] Desires, wants, or similar terms used in this analysis are used to
designate paper and pencil reactions of students' indicated desire for children.
Desire for children, of course, does not necessarily reflect actual number
of children to be born when these students become parents. Further discussion
of factors related to fertility may be found in P. K. Whelpton and Clyde V.
Kiser, "Social and Psychological Factors Affecting Fertility", <u>Milbank Memorial
Fund Quarterly</u>, 21:3 (July, 1943), 221-280; 22:1 (January, 1947), 63-111; 25:4
(October, 1947), 383-425; 26:2 (April, 1948), 182-236; 27:2 (April, 1949),
186-244.

Students who are included in this study indicate desire for a mean average of 3.01 children.[4] The standard deviation of this mean is .981. Very few seem to want less than two; few, more than four children. The heavy concentration of indicated desire for two, three, and four children, may possibly be due to a high degree of homogeneity in the group observed. Four students state that they want no children; the same number say they desire six. Families of five or more children are more frequently indicated as desirable than childless or one-child families. Table 2 below shows the distribution of expressed desires for children in this group with percentages of the total group desiring each number.

Table 2. - Distribution of Indicated Number of Children Desired Among Test Group Students.

Indicated Number of Children Desired	Number of Students	Per Cent of Students
Total	480	100.0
0	4	.8
1	8	1.7
2	147	30.7
3	181	37.7
4	121	25.2
5	13	2.7
6	4	.8
7	1	.2
8	1	.2

Some investigations have indicated that college students think two children to be an ideal family number.[5] Most of those investigations were made prior to World War II during a stringent economic period. This study, made in a period of more favorable economic conditions, may suggest that desire for children is directly associated with the general economic

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[4] All averages used in this study are arithmetic means. In future references "average" designates this mean.

[5] Cited, Paul H. Landis, Social Policies in the Making, p. 248.

situation. This is, of course, not a direct hypothesis for test by present data. The degree of association, however, between relative economic status of students' families, determined by fathers' occupational class, and indicated desire will be examined. If desire for children increases directly with assumed economic rank of fathers' occupations, some illumination on this suggested alternative hypothesis may be obtained.

2. Home Residence

Size of resident community is generally considered to be inversely associated with fertility. Some studies dealing with associations between size of resident community and indicated desire for children, however, report no observed differences.[6] Students in the present test population are predominately urban residents. Of the males 71 per cent and of the females 78 per cent list places with a population of 2,500 or larger as home communities. Rural men included in this study desire an average of 2.72 children; urban men, 2.83. For rural women this number is 3.63; for urban women, 3.24. Apparently home residence is associated with indicated desire for children, but the implied direction of association is opposite for the two sexes. Since the residence differences disclosed by this comparison are relatively small and since the length of residence in given communities is not controlled in this study, present interpretation of these variations must be limited.

Separating rural students into farm and non-farm groups and classifying urban students by size of resident community does shed additional light on this question. Table 3 reviews these findings. Rural residence is

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[6] See supra, p. 9.

apparently positively associated with relatively high indicated desire by women students for children; within the urban group the larger the city, the fewer children women generally indicate as desirable. Similar consistent

Table 3. - The Relation of Size of Resident Communities to Mean Number of Children Indicated as Desirable, by Sex.

| Size of Resident Community | Mean Number of Children Desired by | | | |
| | Males | | Females | |
	Number	Average	Number	Average
All Groups	344	2.85	136	3.23
Total Rural	125	2.72	30	3.63
Total Urban	218	2.83	106	3.24
Rural Farm	72	2.63	16	3.50
Rural Non-Farm	53	2.85	14	3.79
2,500-5,000	53	2.85	21	3.38
5,000-10,000	43	2.65	11	2.82
10,000-50,000	68	2.97	38	3.32
50,000-100,000	11	3.00	4	3.25
100,000-1 million	38	2.74	32	3.19
1 million and over	5	2.80	—	—

trends are not shown for males. Rural non-farm men report desire for the same mean number of children as small-town urban males. Rural-farm males indicate desire for fewer children than any other group. Indicated desire for children among urban men increases with size of resident community up to cities of 50,000 population, beyond which a reverse tendency is noted. Contingency coefficients of .055 for males and .239 for females indicate degrees of association between indicated desire for children and size of resident community, but since the P value[7] is only .95 for males and .20 for females, the association is not considered to be statistically significant. These data suggest, nevertheless, that size of home resident community may be associated with

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[7] The symbol P is used to designate the reliability of a statistical measure. See supra, pp. 6-7.

indicated numbers of children desired and that this relationship may be greater in asserted desires of females for children than in asserted desires of males. Since length of residence in home community is not considered in this study, this observation is extremely tenuous on basis of present data.

3. Education of Father

Fathers of males interviewed have an average of 11.2 years of schooling; fathers of females, an average of 12.3. Relationships between fathers' education and their offspring's desire for children are analyzed separately for men and women to eliminate possible effects eminating from the unequal educational attainments of fathers. Educational level attained by fathers appears to be associated with indicated desire for children among males differently than among females. Males tend to desire fewer children as their fathers' educational attainment increases, females exhibit the opposite tendency. Table 4 below reviews this indicated relationship.

Table 4. - The Relation of Number of Children Indicated as Desirable to Fathers' Educational Attainment, by Sex and Educational Groups.

Number of Children Desired and Mean Number Desired	Fathers' Education in Years					
	Males			Females		
	1-8	9-12	13-up	1-8	9-12	13-up
Number	139	184	157	22	62	52
Percentage						
0-2	35.9	36.9	41.9	18.2	19.4	23.1
3	34.2	36.9	39.0	36.3	54.8	25.0
4 or more	29.9	26.2	19.0	45.5	25.8	51.9
Mean Value	2.94	2.87	2.73	3.32	3.15	3.54

Contingency coefficients of these relationships are .125 for men and .349 for women with P values of .50 and .02 respectively. The association for males is not statistically significant but for females, being above the

five per cent confidence level, it may be accepted as significant. An alternative judgment for these data may be obtained through use of product-moment correlation, tested for significance on the null hypothesis. This correlation coefficient for males is -.087 with P at .055; for females .117 with P of .056. Both P values are almost equal to the accepted confidence level and may be taken as indicative of possible significance. Father's education thus appears to be directly correlated to a slight degree with females' desire for children, inversely with males' desire for children.

4. Education of Mother

Mothers of men studied have received an average of 11.8 years of schooling; mothers of women, an average of 13.1 years of schooling. Apparently, educational attainment of the mothers of these students is associated with expressed desire for children. These data are reviewed in Table 5. These means suggest that the educational achievement of mothers has a greater association with desire for children expressed by sons than that expressed by daughters. Contingency coefficients of .129 for men and .087 for females support this statement. These measures of degrees of association are not statistically significant, however, and further evidence must be found before conclusive statements may be made.

Product-moment correlation coefficients give more statistically reliable measures of the relationship between mothers' level of education achieved and students' desires for children. A coefficient of -.084, P at .02, is obtained between mothers' educational achievement and sons' desire for children; between educational achievement of mothers and daughters' expressed desire for children a coefficient of .023, with P at .39, results. This indicates differences in means to be significant for men. No statistical

significance, however, may be implied for the mean differences obtained for women. Only 18 of these mothers of female students, out of a total group of 136, have less than an eleventh grade education. This observation with the average level of education attained by this group of mothers being equivalent to the first year in college, suggests differences in their educational attainment to be too small for significant comparisons. Thus, only indicated desire of sons for children is associated in these data inversely and in small degree with educational achievement of mothers.

Table 5. - The Relation of Number of Children Indicated as Desirable to Mothers' Educational Attainment, by Sex and Educational Groups.

Number of Children Desired and Mean Number Desired	Mothers' Education in Years				
	Males			Females	
	1-8	9-12	13-up	1-12	13-up
Number	68	159	117	66	70
Percentage					
0-2	35.3	37.1	41.0	19.7	21.4
3	36.8	35.2	38.5	43.9	37.1
4 or more	27.9	27.7	20.5	36.4	41.4
Mean Value	2.94	2.91	2.83	3.32	3.33

5. Number of Siblings

Males studied came from families having an average of 3.50 children; females from families having an average of 3.02. Forty-seven men and 23 women are "only children". Of the males 73 per cent have fewer than four brothers or sisters; 71 per cent of the females less than three. These students have come from families differing in size, but the degree of difference is slight since the majority have three or fewer siblings. Homogeneity of families in respect to size, then, will reduce in this study both the range of differences observed and the statistical significance of differences found.

Men students interviewed who are "only children" express desire for an average of 2.43 children; women, an average of 3.17. One of these male students said he wanted no children; two expressed desire for at least one child. Five females in this group indicated that they desired at least two; all others, at least three children. This suggests that they believe one-child families to be undesirable. Students from larger families desire an average indicated number of children which tends to increase directly with the number of brothers or sisters present in parental families. This is shown by the data of Table 6.

Table 6. - The Relation of Size of Parental Families to Mean Indicated Number of Children Desired, by Sex.

| Size of Parental Family | Mean Number of Children Desired by | | | |
| | Males | | Females | |
	Number	Average	Number	Average
Only Children	47	2.43	23	3.17
Two Children	95	2.81	41	3.32
Three Children	61	2.92	32	3.22
Four and Five Children	83	2.93	31	3.25
Six or more Children	58	3.09	9	4.33

Support for the foregoing observation is gained through computation of contingency and product-moment correlation coefficients. Contingency coefficients of .346 for males and .180 for females with respective P values of .001 and .50 result. Product-moment correlation obtains values of .185 for males and .095 for females with respective P values of .001 and .13. Thus, desire for children is associated with size of parental family to a degree highly significant statistically for males, but below the five per cent confidence level for females. Since most of the women in this study come from homes having less than three children, they are not representative of different sizes of families. The averages shown are regarded, therefore, only as suggestive.

6. Order of Birth

To give separate consideration to informants who come from families in which siblings are present, obtained schedules are divided by parental family sizes into categories of two, three and four, and five or more. Comparisons of mean numbers of children desired, holding family size constant in the manner indicated, reveals that male students who are the first or the last child indicate desire for larger families than males occupying a central ordinal position. Table 7 presents these data. Men students who are last children in these groups tend to desire larger families than first children. The average number of children desired by males who are first children from families having five or more siblings, is probably not representative due to sample limitations. The only male indicating desire for six children actually fell in this class. Female students exhibit a consistent tendency of increasing indicated desire for children as their own ordinal position advances.

Table 7. - The Relation of Size of Parental Family and Students' Order of Birth to Indicated Number of Children Desired.

| Size of Parental Family and Order of Birth | Mean Number of Children Desired by | | | |
| | Males | | Females | |
	Number	Average	Number	Average
Two Children				
First Child	47	2.72	13	3.31
Last Child	48	2.90	28	3.32
Three or Four Children				
First Child	35	2.91	21	3.10
Middle Child	46	2.70	21	3.24
Last Child	31	3.19	9	4.11
Five or More Children				
First Child	9	3.76		
Middle Child	57	2.91	15	3.47
Last Child	24	3.17	6	3.50

Contingency coefficients of .265 for males and .318 for females are obtained between order of birth and indicated desire for children, where size of family is held constant. These computations are made with students reared in families of three children or larger and result in P values of .03 for men and .10 for women. Similar computations using students whose families consist of less than three children produces contingency coefficients of .267 for males and .291 for females with respective P values of .10 and .068. Indicated desire for children is positively and reliably associated with ordinal position of males from families of three or more children. These computations satisfy the five per cent confidence level. Within this particular class desire for children increases with later ordinal position. Relationships found in other categories studied are not statistically significant, but obtained averages suggest a similar association to that described above for males from the larger families.

7. Number of Children in Fathers' Parental Home

Fathers of male students studied came from homes having an average size of 5.58 children; fathers of females from homes averaging 5.39 children. Compared with the parental family size of male and female students, these figures clearly indicate that average family size is decreasing.

Fathers of nine men and 11 women are from one-child families, the others being from families ranging in size from two to 12. Through arrangement of students into groups according to size of fathers' families, classes containing approximately equal numbers are obtained. These are included in categories of one to three, four and five, six and seven, and eight or more children in fathers' families. Average numbers of children indicated as desirable by male students falling in these classes increase directly with

size of fathers' families. Average numbers of children indicated as desirable by females, as shown in Table 8, follows a reverse pattern. For each sex group the given tendency is consistent.

Table 8. - The Relation of Size of Fathers' Parental Family to Mean Number of Children Indicated as Desirable, by Sex.

Size of Fathers' Parental Family	Mean Number of Children Desired by			
	Males		Females	
	Number	Average	Number	Average
1-3	85	2.69	35	3.54
4-5	110	2.81	35	3.43
6-7	72	2.92	33	3.21
8 or more	72	3.03	32	3.09

Degrees of association between size of fathers' families and students' indicated desire for children are obtained by computation of contingency coefficients, which are .141 for males with P at .30, and .172 with P at .50 for females. On this basis these associations are not statistically significant. Product-moment correlations are .192 with a P of .001 for men and -.164 for women with P at .027. These values are both statistically significant and imply that the desire of male students for children tends to increase directly with increasing size of their fathers' families, while that of female students is inversely associated with size of their fathers' families.

8. Number of Children in Mothers' Parental Home

Mothers of men students came from homes having an average of 5.54 children; mothers of women students from homes having an average of 5.15 children. Mothers of males in 19 cases are from one-child families; only three mothers of females are from similarly sized families. Arranging students into groups by size of mothers' families, with classes identical to those used in reference to the families of fathers, averages are obtained,

as shown in Table 9, which suggest that a positive association exists between size of mothers' parental families and students' indicated desire for children.

Table 9. - The Relation of Size of Mothers' Parental Family to Indicated Mean Number of Children Desired, by Sex.

Size of Mothers' Parental Family	Mean Number of Children Desired by			
	Males		Females	
	Number	Average	Number	Average
1-3	84	2.68	39	3.15
4-5	105	2.83	39	3.28
6-7	82	2.94	35	3.29
8 or more	69	2.97	23	3.74

These data furnish evidence that indicated desire for children, both among men and among women, increases directly with size of mothers' parental families. Contingency coefficients of .192 with a P of .05 for males, and of .297 with a P value of .05 are obtained, both of which are considered statistically significant. Product-moment correlations produce coefficients of .149, a P of .002; and .169, a P of .024, for males and females, respectively. Students' desire for children thus appears to be directly associated with size of mothers' parental families.

9. Fathers' Occupational Class[8]

Human fertility, as a general rule, varies inversely in the United States with socio-economic status. Related observations may be achieved by examining associations between fathers' occupational class and students' indicated desire for children. Since rural marriages are generally found to be more fertile than urban, fathers having rural occupations must be considered separately. Seventy-nine fathers of men and 18 fathers of women students fall in this group. Further classification shows that 30.7 per cent

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[8] U. S. Census Bureau occupational classifications are used.

of the fathers of males and 30.8 per cent of the fathers of females are either proprietors, managers, or officials. This concentration of occupational pursuits is again indicative of sample homogeneity which precludes much ground for analysis of statistical variations.

Mean indicated number of children desired by students whose fathers are engaged in different classes of occupations, as shown in Table 10, do vary but interpretation of general tendencies is difficult. Combining the occupational groups into classes commonly judged to appear on different economic levels revealed no significant differences. Differences between the averages shown above are also more apparent than real since reliability is below acceptable standards. These data can only imply a tendency for direct association between socio-economic level of fathers' occupational class and students' indicated desire for children. Statistical evidence for such relationships are inconclusive.

Table 10. - The Relation of Fathers' Occupational Class to Mean Indicated Number of Children Desired, by Sex.

Fathers' Occupational[1] Class	Mean Number of Children Desired by			
	Males		Females	
	Number[2]	Average	Number[3]	Average
Professional	32	2.87	15	3.47
Prop., Mgr., Off'l.[4]	105	2.71	42	3.50
Clerical, Sales, etc.	33	2.90	21	3.19
Craftsmen, etc.	47	2.77	21	3.09
Operators, etc.	22	2.73	13	2.85
Service	16	2.43	2	4.50
Laborers	10	2.50	--	----
Farm Owners	52	3.00	11	3.54
Farm Tenants	27	3.22	7	3.28

1. U. S. Census Bureau classifications.
2. Occupations of two fathers are unknown.
3. Occupations of four fathers are unknown.
4. Exclusive of farm owners or tenants.

10. Interpretation

Students attending Oklahoma Agricultural and Mechanical College agree
with students from similar schools that three children are a desirable
number. Size of home communities in which these students live appears to
be statistically insignificant as a factor related to their indicated desire
for children. Among females in this connection, indicated desires for
children seem to reflect influences of urbanization, though this is insigni-
ficant statistically.[9] Inadequate sampling controls in this present investi-
gation probably vitiate the statistical reliability of expressed differences
between rural and urban students.

Some association, though statistically unreliable, between level of
education achieved by fathers and students' indicated desire for children
is evidenced in this study. A _direct_ relationship between this factor and the
desires of women is shown but an _inverse_ relationship is implied for men. An
inverse association is revealed between level of education achieved by mother
and the indicated desire of male students for children. The level of educa-
tion achieved by fathers is apparently related to a higher degree with
indicated desires for children on the part of daughters; mothers' educational
achievement is related to a higher degree with indicated desire for children
among sons. Product-moment correlations of .117 for the above father-
daughter combination and -.084 for the mother-son relationship, both of which
are statistically significant, challenge conceptions of mother dominance.
Since these correlations are relatively low, however, there is no basis for
conclusive inference from these data.

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[9] This agrees with results indicated in a recent study made at
Washington State College. See _supra_, p. 13.

Students who come from large families tend to want families larger in size than those who come from small families.[10] Females in this study come from smaller homes than do boys; hence, the variation in the number of siblings is not as great in the homes of women students as that found in mens' homes. This may possibly account for failure of correlations between indicated desires of female students and the number of their siblings to reach a magnitude of significance.

Ordinal position is found to be related statistically to the number of children students indicate as desirable among males from families of three or more children only. Within this group last children tend to indicate desire for the largest families. They are followed by first children, while middle childrens' indicated desire appears to be the least associated with this factor. Statistical correlations between ordinal position and indicated desire for children among students coming from families having less than three children are positive but not statistically significant. A positive correlation, insignificant statistically, between order of birth and indicated desire of female students coming from families of three or more children is also obtained.

Differences in the experiences of first and last children in the smaller sized families are possibly not sufficient to distinguish indicated desires for children. Failure of comparisons between order of birth and indicated desires for children among women coming from larger families to be associated may be in all probability, explained by an inadequate sample of women students from families of three or more children. Since contingency coefficients are larger for women coming from families of three or more children and from families having less than three than those appearing in comparable male

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10 Note Christensen's similar finding, supra, p. 12.

classifications, the suggestion is apparent that a more adequate range in
family size might reveal relationships of greater magnitude for women.

Evaluation of the theory of maternal dominance in attitude formation
is extended by an examination of the association existing between number of
siblings in fathers' and in mothers' parental homes and desires of sons
and daughters for children. No significant differences can be found.
Direct associations are implied between size of fathers' parental homes
and indicated desires of sons for children and between size of mothers'
parental homes and indicated desires for children of both sons and daughters.
An inverse association is found between size of fathers' parental homes and
indicated desire by their daughters for children.

A plausible explanation of the failure of paternal occupational class
to be associated with indicated desires of students for children may be
found in inherent defects of the occupational classification used. Occupational
categories often violate the basic criteria of classification which were men-
tioned in the introduction to this study.

CHAPTER IV PERSONAL ATTRIBUTES AND INDICATED DESIRE FOR CHILDREN

1. Introduction

Until marriage desire for children is a personal matter. After marriage
it becomes a mutual concern. It is important, therefore, to consider those
personal characteristics of college students which appear to be associated
with numbers of children desired and which may upon marriage enter into
considerations of family size. Personal characteristics chosen for investi-
gation hence are; sex, age, veteran status, religious preference, church
membership, marital status, and primary source of sex education.

2. Sex

Most studies in this area reveal that women desire more children than
men. Some exceptions are found.[1] The present study of sex differences is
made through analysis of records obtained from 344 men and 136 women. That
females indicate desire for more children than do males is revealed in
Table 11. The largest percentage figures for females falls in class 3; for
males, in class 0-2. A comparison between per cent of each sex group indi-
cating desire for four or more children reveals a conforming tendency for
females to express desire for the larger families. The computation of the
average number of children indicated as desirable by students of each sex
gives further conforming evidence. Males desire an average of 2.85 children;
females, 3.23. The critical ratio of the difference between these means is
5.02, signifying a highly significant difference. The degree of association
between sex and indicated number of children desired is found to be .736,

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[1] See Bell's findings, supra, p. 8.

using a contingency coefficient measure, with a P value less than .001. In less than one time in 1,000 could these differences be attributable to chance. Sex, therefore, appears to be highly significant as a factor associated with indicated desire for children in this test population.

Table 11. - The Relation of Indicated Number of Children Desired to Sex.

Indicated Number of Children Desired	Males		Females	
	Number	Per Cent	Number	Per Cent
Total	344	100.0	136	100.0
0-2	131	38.1	28	20.6
3	126	36.6	55	40.4
4 or more	87	25.3	53	38.0

3. Age

Age and accompanying maturity are commonly thought to be associated with interest in and planning for marriage and parenthood. Students sampled range in age from 18 to 38 years, the majority being from 18 to 25. Of the males 88 per cent are between these age limits; of the females 89 per cent are in age between 18 and 21. Through division of cases into age and sex groupings containing approximately equal numbers, it is found that the average number of children desired increases slightly with increases in age for both males and females. This is shown in Table 12. This tendency is more consistent for females than males. Men who are 18 to 19 and those 26 years of age or older, deviate from the general pattern noted above. At both age extremes there is great probability of sampling error.

Contingency coefficients of .180 for both males and females give some support to the above interpretation, but a P value of .30 for both sexes falls below the five per cent confidence level and indicates that the association may be due to chance. Apparently age may be associated with

desire for children but the data in this study justify only qualified and restricted conclusions limited primarily to the central ages, the extreme age groups being too variable for orderly interpretations.

Table 12. - The Relation of Age to Indicated Desire for Children, by Sex.

| Age of Student | Mean Number of Children Desired by | | | |
| | Males | | Females | |
	Number	Average	Number	Average
All Ages	344	2.85	136	3.23
18-19	78	2.83	68	3.10
20-21	77	2.74	53	3.53
22-23	87	2.82	15	3.60
24-25	60	3.10	—	—
26 and over	42	2.81	—	—

4. Veteran Status

It might be revealing to know if veterans acknowledge desire for more children than non-veterans. The sample contains 250 male students who are veterans; the remaining 94 males are non-veterans. Men only are used for the analysis of this question, since the study includes only three women who have military experience. Male veterans are found to indicate desire for an average of 2.85 children; non-veterans, an identical number. Veteran status, then, is not differentially associated with desire for children among these college students.

5. Religious Preference

Religion influences birth rates quite consistently. Is religion associated with acknowledged desire for children and, if so, to what extent? The sampled student population contains 34 Catholic, 433 protestant, two Jewish, and 11 students indicating no religious preference. While sampling

deviations might well vitiate minute comparisons here, some differences between
Catholic and protestant groups will be noted. As shown in Table 13, Catholics
of both sexes indicate desire for more children than do protestants. Jewish
students, both males, express a desire for four and six children, respectively.

Differences between protestant denominations are very small and are not
statistically significant.[2] Differences, standardized by sex, between all
Catholic and all protestant students, however, are significant. Contingency
coefficients of .148 and .282 are obtained for males and females, respectively,
with P's of .05 and .04. These P values are within the five per cent confidence
level. Thus, some association between desire for many children and Catholic
religious preference exists. This association is greater for women than for
men. The small number of students having no religious preference eliminates
the possibility of statistical consideration of their indicated desire for
children. However, they do list desires for an average of slightly fewer
children than either protestant or Catholic male groups.

Table 13. - The Relation of Religious Preference to Mean Indicated Number
of Children Desired, by Sex.

Religious	Mean Number of Children Desired by			
Preference*	Males		Females	
	Number	Average	Number	Average
Catholic	24	3.29	10	4.50
Protestant	307	2.85	126	3.21
No Preference	11	2.82	—	—

* Jewish students were omitted since only two were interviewed.

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[2] For this reason these lengthy data are not reviewed.

6. Church Membership

Religious preference alone hardly indicates the significance of religion to people in an adequate manner. Membership is usually accepted as a cue of greater regard than preference. Accordingly, church membership may be a more critical measure for use in this study. In this study, 71 per cent of the males and 85 per cent of the females indicate that they are church members. Table 14 reveals that church members of either sex tend to desire larger numbers of children than non-members. These differences between church members and non-members are in the expected direction, but P values of .50 for males and .30 for females are not statistically significant. Thus, the differences found may be due to chance.

Table 14. - The Relation of Indicated Number of Children Desired to Church Membership, by Sex.

Number of Children Desired and Mean Number Desired	Males		Females	
	Member	Non-Member	Member	Non-Member
Number	245	99	116	20
Percentage				
0-2	36.3	42.4	19.0	30.0
3	37.6	34.4	40.5	40.0
4 or more	26.1	23.2	40.5	30.0
Mean Value	2.90	2.80	3.40	3.10

7. Marital Status

Marriage is commonly thought to condition personal attitudes. In this light married students might reasonably desire fewer children than single students. In the present investigation 28 per cent of the males and 15 per cent of the females are married. Two divorced males are ignored at this

point. One married man indicates no desire for children, one wants six; three, only one child. No married women indicate desire for less than two; only one, five children. Table 15 summarizes the association between marriage and indicated desire for children when sex is held constant. Contingency coefficients calculated separately for the sexes are .140 for men, .195 for women. P values are .20 for males and .50 for females, indicating that the association is likely due to chance. Marital status is not statistically significant as a factor associated with indicated desire for children in this study.

Table 15. - The Relation of Indicated Number of Children Desired to Marital Status, by Sex.

Number of Children Desired and Mean Number Desired	Males		Females	
	Single	Married	Single	Married
Number	243	98	115	21
Percentage				
0-2	38.7	35.7	20.0	23.8
3	38.7	31.6	40.0	42.8
4 or more	22.6	32.7	40.0	33.4
Mean Value	2.85	2.97	3.36	3.14

8. Primary Source of Sex Education

Sources of sex education may be associated with attitudes favoring parenthood. Students designated their primary source of sex education, making possible an evaluation of the association between this factor and indicated desire for children. The most frequently revealed source is "parents", the least frequent "ministers"--mentioned by only one student.[3] Men and women obtain their sex

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[3] Other sources in descending order are: high school companions, books, medical publications, marriage, military training, brothers and sisters, grade school playmates, dates, college classes, high school and grade school classes and teachers, extra-marital relations, relatives, family physician, college companions, pulp magazines.

education from different sources: 33 per cent of the male, and 49 per cent of the female students regarding their families as the primary source of their sex education.

Chi- square tests of significance applied to differences in desire for children acknowledged by students receiving sex education from included sources reveals no statistically significant variations. Thus, primary source of sex education is not associated with the indicated desires for children of these students. Two plausible explanations may be advanced for this lack of significant difference: First, students may be unable to identify the primary source of sex education; second, their sources of sex knowledge may not appreciably influence indicated desires for children.

9. Interpretation

Results in this study regarding sex and desire for children agree with the results of most other investigations of college groups. College women tend to indicate desire for larger families than do college men.[4] Age is not statistically significant as a factor associated with desire for children in this study. The general tendency for indicated desire for children to increase directly with increasing age would agree with Bell's conclusion.[5] Military experience apparently is not related to desire for children, or at least, the effects of this experience are apparently nullified shortly after return to civilian life and college environment.

Catholic students, as Bell found, show tendencies toward expressing desires for larger families than protestant students.[6] Contingency

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[4] See Christensen's findings, supra, p. 12; Schmid, et al, supra, p. 11.

[5] Supra, p. 8.

[6] Supra, p. 9.

coefficients of .148 and .2 2 for men and women, respectively, are relatively low and possibly reflect the influence of the large numbers of protestants in this study. This tendency is more marked among Catholic women than among men of this faith. This suggests, in agreement with other studies,[7] that women are more amenable to organized religion than men.

Associations between indicated desire for children and church membership are not found to be statistically significant. This may cast doubt up on the stated assumption that church membership signifies great regard for religion. Then, the relationships found may suggest that religion is less significantly associated with personal attitudes than is commonly held. Conversely, the slightly fewer children desired by students having no religious preference in this study and in the previously reviewed University of Washington research, suggest a possible relationship between indicated desire for children and religion similar to that found between fertility and religion.[8]

Indicated desires for children expressed by married students are not significantly different from those expressed by single students. This study does suggest, however, that marriage has a conditioning effect reducing sex differentials in indicated desire for children. Logically, this tendency might result from marital adjustment requiring husbands and wives to adopt more nearly mutual attitudes.

Students in this study have been taught what they know about sex by their parents more than had those studied by Bell.[9] Parents and families

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[7] McMillan, op. cit., p. 212.

[8] See review of Schmid and Engel's findings on no preference students, supra, p. 11; with reference to fertility and religion, see, Whelpton and Kiser, op. cit., 21:3 (July, 1943), 226. Their research revealed Catholics had the highest fertility rates, followed in order by protestants, no religion groups, mixed Catholic-protestant, and Jewish.

[9] Supra, p. 9.

are named by 33 per cent of the men and 49 per cent of the women as their primary source of sex education. In Bell's research 17 per cent of the boys and 45 per cent of the girls had received their knowledge in their homes.

Questions arise as to the adequacy of sex education indexes used in these studies. Neither measures the amount of sex instruction youths have received. Few students apparently have received sufficient instruction from any source to modify their desire for children systematically. The statistically insignificant relationship between primary source of sex education and students' desire for children may be due to failure on the part of these informants to recognize, separate, and classify the sources of their sex education distinctly.

CHAPTER V EDUCATIONAL CHARACTERISTICS AND INDICATED
DESIRE FOR CHILDREN

1. Introduction

Students in the same college undoubtedly experience during their

attendance a somewhat similar social situation. There must be considered,

however, possible differences developing from varied length of college

exposure and from selection of specific major academic fields of concen-

tration. Both may influence personal objectives materially. Specifically,

these two factors only--academic class and school of enrollment--are used

in this study to consider whether or not they are distinctively associated

with desire of students for children. A review of present findings may

provide some illumination on the effects of these given conditions.

2. Academic Class

Analysis of data arranged by class affiliation permits evaluation of

the association between time spent in college and indicated desire for

children. Averages computed for each class by sex, as shown in Table 16,

suggests that desire for children increases with academic class standing.

Exceptions are noted for freshmen males and senior females. When freshmen

and sophomore classes are combined, maintaining sex divisions, male students

desire an average of 2.78 children; female students, an average of 3.26

children. Similar combinations of junior and senior male students obtains

a mean indicated desire of 2.92 children; females, a mean of 3.38 children.

Chi-square tests of these differences between grouped academic classes

of males discloses a P value of .04, acceptable as significant. Differences

between grouped academic classes of females reveals a P value of .45,

considered not significant. Contingency coefficients of .731 for males and .773 for females suggest a high degree of association between academic class status and desire for children in these sex groups. The P values given above, temper conclusions implied by these data. Academic class status and males' desire for children are highly associated. Omitting freshmen, the averages of academic classes of males in indicated desire for children increase directly with academic status. These data imply a similar association for females. Statistical tests indicate, however, that this relationship for females may be due to chance.

Table 16. - The Relation of Academic Class Level to Mean Indicated Number of Children Desired, by Sex.

Academic Class Level	Mean Number of Children Desired by			
	Males		Females	
	Number	Average	Number	Average
Freshmen	104	2.83	14	3.07
Sophomore	78	2.73	54	3.31
Junior	86	2.81	43	3.56
Senior	76	3.05	25	3.08

3. Academic School

Male students registered in the School of Education, who are included in this study, desire an average number of children larger than that indicated by men in other schools. Engineering males desire an average smaller than those in other schools. The descending order of average number of children desired by men, by schools, is as follows: Education, Arts and Sciences, Commerce, Agriculture and Engineering. Female students in the School of Arts and Sciences indicate greater desire for children than those in other schools. Women in Home Economics desire fewer children than those in other schools. The descending order of average number of children desired by women, by schools, is:

Arts and Sciences, Education, Commerce and Home Economics.[1] These findings

are reviewed in Table 17. Commerce students rank third in each sex group.

Students of both sexes enrolled in Education and Arts and Sciences express

the highest desire for children; students in Agriculture indicate the smallest

desire. Chi-square tests of differences between all schools results in P

values of .053 for males, .47 for females. Neither satisfies confidence

levels assumed in this study. The P value for males is quite close and may

indicate appreciable association. Average differences in indicated desires

for children expressed by students from different schools are not great, the

range being .46 for men and .64 for women. This indicates academic school

is not associated to a degree statistically significant with desire for

children.

Table 17. - The Relation of Major Academic Schools to Indicated Mean Number
of Children Desired, by Sex.

Major Academic School	Mean Number of Children Desired			
	Males		Females	
	Number	Average	Number	Average
Agriculture	102	2.76		**
Arts and Sciences	67	2.96	59	3.74
Education	19	3.16	18	3.33
Commerce	95	2.91	37	3.19
Engineering	61	2.70		**
Home Economics	—	*	20	3.10

* Home Economics has extremely few male students.
** Agriculture and Engineering Schools rarely have female students.

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[1] Students from the schools of Home Economics and Engineering, included in this study, are not representative of their respective academic schools. Mean values shown are of course pertinent to students from these schools drawn into this study, not to the universes of academic concentration.

4. Interpretation

Academic class status is highly associated with students' asserted desire for children. This relationship is statistically significant for males, not for females. Explanation for the latter may be due to inadequate sampling since the majority of women participating in this study were either sophomores or juniors. Neither age nor veteran status revealed significant correlations with male students' desires for children.[2] The significant relationship between academic status of men and indicated desire for children may result from the longer time spent in the college environment.

If a direct relationship exists between an expressed desire for children and parenthood, appearances suggest that some factors related to low fertility among educated Americans are being sharply affected by this college environment. An association of the .773 level obtained in this study, where a reliability measure indicates that in only four out of 100 cases might this association be due to chance, cannot be ignored.

Failure in this study to find significant differences in desire for children expressed by students enrolled in different schools tends to substantiate the contention that the general college exposure may be conducive to interest in larger families. Since the probability value indicated for males is close to an acceptable confidence level, this is not conclusive.

Students of the School of Agriculture indicate desire for fewer children than do those in other schools. Preceding analysis of the association between home residence community and indicated desire for children revealed

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[2] This was discussed in Chapter IV. See _supra_, pp. 32-33.

that rural-farm students desired fewer children than rural non-farm.[3] Rural-farm males, particularly, indicated desire for fewer children than any other residence group. These tendencies suggest that desired fertility in this particular group deserves further detailed study. Whether or not significant differences in psycho-social behavior between rural and urban Oklahoma populations of younger ages actually exist has been raised in research by Robert L. Fisher.[4] Studying personality traits of rural and urban high school students, he concluded that no differences in the influence of these Oklahoma community types were evident. He thought this due to the fact that these units do not represent typical primary and secondary experience groups.

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[3] See, supra, p.18, where it was shown that rural farm students of each sex indicated smaller average numbers of children desired than rural non-farm students.

[4] Robert L. Fisher, An Analysis of the Influence of Rural and Urban Communities on Selected Personality Traits, Stillwater, Oklahoma: Agricultural and Mechanical College Library, 1942, p. 64.

CHAPTER VI   SUMMARY AND CONCLUSIONS

The purpose of this study has been to determine whether or not statistically significant relationships between indicated number of children desired and selected social differentials are present in a test group of Oklahoma Agricultural and Mechanical College students. The test group chosen, not a thoroughly representative sample, was selected to conform as much as possible to known characteristics in the parent universe or student body of this college.

The hypothesis upon which this experimental study has been based is that given social characteristics are uniformly associated with opinions regarding number of children desired. In approaching this hypothesis the assumption was made that desire for children is motivated, in major degree, by family instruction or informal learning, by personal characteristics or objectives related to status interests, or by values derived from formal education.

A review of research related to this problem revealed that college students, excepting Mormon students, expressed desires for approximately three children as an average number; that youth indicated desire for smaller families than those in which they were reared (a direct relationship, however, between size of parental home and the number of children expressed as desirable was noted); that women tended to indicate desire for larger families than men; that marriage had little effect on indicated desire for children; that religious allegiance (though evidence was not uniform) might be associated with greater indicated desire for children; that age and parental income were related in a slight positive manner with expressed desires of youth for children; that the size of community in which youth live was insignificantly related, except possibly in differences between

rural and urban residents, to indicated desire for children; and that modern parents might be providing sex education for their children more typically than did parents of earlier generations.

An original schedule was prepared, pre-tested, and administered to 500 students. Schedules obtained were edited for completeness and accuracy of information. An approximate five per cent sample of the total student body was selected from these returns. Statistical analysis was made of the degree of association between the number of children which students indicated as desirable and items relative to three areas of social characteristics: (1) family background, (2) personal attributes, and (3) educational experience.

In terms of the reliability measure adopted, the following social characteristics have been found to be associated in the manner indicated with expressed desire for children:

(1) Educational level achieved by mothers has been found to be inversely associated with their sons' expressed desire for children.

(2) Size of parental family has been revealed to be directly associated with males' expressed desire for children.

(3) Ordinal position has been indicated to be directly related with expressed desire for children among men reared in homes having three or more siblings.

(4) It has been noted that indicated desire of male students tends to increase directly with increasing size of their fathers' parental families, while that of female students is inversely associated with size of their fathers' parental families.

(5) Desire for children of both men and women students has been indicated as being directly associated with size of their mothers' parental family.

(6) It has been disclosed that females tend to desire larger families than do males.

(7) Catholic students of either sex have indicated desire for larger numbers of children than have protestant students.

(8) It has appeared in this group that academic class status and mens' desire for children are directly associated.

Other associational tendencies have been noted but statistical evidence

is inconclusive. Relationships found suggest that this may be due to sample

inadequacy or methodological limitations. These points which invite further

study are as follows:

(1) Desire for children expressed by men has tended to increase with
urban residence; expressed desire of women has revealed an inverse association.

(2) Educational level achieved by fathers has appeared to be inversely
associated with expressed desire for children by their sons, directly associ-
ated with their daughters' expressed desire.

(3) Educational level achieved by mothers and daughters' expressed
desire for children have appeared to be directly associated.

(4) Size of parental family has been indicated as directly associated
with females' desire for children.

(5) Ordinal position and desire for children expressed by men and
women from families having less than three siblings have been indicated as
directly associated. Ordinal position and desire for children expressed by
women from families having three or more children have also been indicated
as being directly related.

(6) Age has apparently been directly associated with desire for children
by both men and women students. (This is applicable particularly to men
students between 20 and 25 and women between 18 and 23 years of age.)

(7) Marriage has appeared as a factor associated with reduction in
sex differentials in indicated desire for children.

(8) Academic class status has appeared to be directly associated with
females' desire for children.

Some social factors have been found to be not statistically associated

with students' desire for children. Perhaps variables chosen did not provide

sufficient discrimination. These are as follows:

(1) Fathers' occupational class has been found not to be associated with
desire of students for children.

(2) Veteran status has been found not to be associated with male students'
desire for children.

(3) Church membership has been found not to be associated with students'
desire for children.

(4) Marital status has been found not to be associated with students'
desire for children when the sex of the informants is held constant.

An additional obligation of this study is to review the utility of the methodological procedures which have been employed. The following points appear to be plausible as suggestions for future research in evaluation of association between indicated desire for children and social differentials:

(1) In addition to criteria, herein employed, it is suggested that more sufficient sampling of length of residence in home community, size of parental family, sufficiently distributed educational achievement of both mothers and fathers, age, marital status, religious preference, and academic school of enrollment be attempted.

(2) More discriminate measures of economic status of parents, religion, vocational interests, and primary source of sex education and the use of an evaluation technique for determining accuracy and completeness of sex knowledge obtained might yield valuable information.

(3) Evidence of kurtosis within frequency distributions of some variables used indicates need for statistical measures applicable to data which are not uniform. Lack of familiarity with these techniques prevents present suggestion of detailed application in this regard.

(4) It might be that a sample larger than that employed in this study might prove more satisfactory for analysis of internal variations.

The evidence obtained supports the contention that the hypothesis of this study is in part valid. Had it been possible when the study was planned to foresee some of the relationships now evident, it would have been a critical advancement if the controlling phrase "uniformaly associated" had been more carefully examined. It now appears that advancement in this area of investigation must consider the possibility of orderly but not necessarily linear associations.

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APPENDIX

Opinion Survey

School_____ Class_____ Veteran: Yes___ No___ Age___ Sex_____

Religious faith:_____ Member: Yes___ No___ Marital Status: S M D W Sep
                                                                  (circle one)

Size of home community: Farm___ Place of less than 2500 pop._____
     2500 to 5000 pop._____ 5000 to 10000 pop.____ 10000 to 50000 pop.____
     50000 to 100000 pop.___ 100000 to 999000 pop.____ 1 million or more____

Highest grade completed by father_____ Highest grade completed by mother_____

Number of children born to your mother____ Order of your birth 1 2 3 4 5 6 7 8
                                                                (circle one)

Number of children in your father's family_____ Your mother's_____

Occupation of your father: (Be specific)_____ Industry_____

From what sources have you received the major portion of your knowledge of sex?
List in order of importance. (Source contributing most knowledge list as 1:
second, 2: etc.)

_____ Parents   _____ Schools (H. & gr.)   _____ Military tr'ng

_____ Brothers   _____ Teachers (H. & gr.)   _____ Col. Classes

_____ Sisters   _____ Family Physician   _____ Marriage

_____ Close Relatives   _____ Pulp Magazines   _____ Extra-marital expr.

_____ Dates   _____ Books   _____ Other, (specify)

_____ Playmates (Grade)   _____ Medical pubs.   _____ Playmates
                                                               (pre-school)

_____ H. S. Companions   _____ Movies

How many children do you desire to have in your family? 0 1 2 3 4 5 6 7 8 9
                                                            (circle one)

Interviewing Instructions

Accuracy and reliability of this survey depends, among other things, upon your ability to obtain accurate and complete answers for all questions. Following suggestions are made to aid you in this regard:

1. Gain students confidence, explain purpose of survey, assure informant his views will remain anonymous and insist that he give careful consideration to each item before answering.

2. Explain carefully each item before the student marks his answer.

3. Following items need particular explanation and should be interpreted thus:

Religious faith—denomination or sect.

Church member—considered on basis of how your church determines membership.

Size of home community—size of community in which you live when not attending school.

Number of children born to your mother—count only live births. Exclude children who died before reaching six.

Number of children in your father's parental family—number of brothers and sisters, including your father, born alive to your paternal grandmother.

Number of children in your mother's parental family—as above.

Occupation of your father—what your father actually does for a living. If deceased, give occupation engaged in most of his life.

Source of sex knowledge—direct students' thinking in these terms: knowledge of sex I have obtained largely came from what sources? Check items on right hand side of columns. Then have student determine the order of significance of these checked items.

How many children do you desire to have in your family?—It is recognized that control of births is not always possible. Assuming this possibility, however, how many children do you desire when you marry?

M. F. McFarland